Alphabetical Index to Advertisers

For Appointments (Wanted or Vacant), Competitions, Open Drawings, Tracings, etc., Educational Legal Notices, Miscellaneous Property and Land Sales—*see* pages xxviii and xxx.

The inherent advantages of Reinforced Concrete in respect to FIREPROOFING

Article number seven is a new series on the principles and practice of reinforced concrete construction. It is suggested that each article should be cut out and kept in a personal file for this series and for other information relating to reinforced concrete construction.

* * *

Experience gained in peace and war has established without controversy that concrete is the best fireproofing medium. This fact combined with economies and advantages in many other directions has placed reinforced concrete in the forefront when considering the question of fireproof construction.

The protective concrete is not just additional dead load but an integral part of the structure. Outbreak of fires are localised and should a major fire occur, the main framework and floors suffer the minimum of damage with little risk of collapse and are capable of being repaired cheaply. The illustration on this page amply supports this assertion. An architect is ever seeking to give his client what he requires at a minimum cost. By building in reinforced concrete he obtains fireproof properties automatically and simultaneously with the additional advantages of reduction in the weight of steel, quantity of concrete and area of shuttering. Likewise there is a decrease in the loads on the columns and foundations and an increase in usable floor space and headroom.

Manufacturing operations in the reinforced concrete buildings depicted above were resumed within thirty days of extinguishing the great fire that swept through these works.

The ability of concrete to withstand high temperatures is increased enormously by the reinforcement and it is important that the reinforcing bars should have a high degree of adhesion with the concrete. The continuous bond afforded by a reinforcement of twisted square bars results in this type being the most efficient reinforcement for the purpose. This reinforcement has an adhesion value five times as great as that of plain round bars.

Sandwich of strength

ANY OLD-TIMER IN concrete-laying knows that "the drier the mix, the better the set". The catch is in securing an *even hydration* . . .

If the subsoil is at all porous (perhaps only in patches) and moisture drains away from the mix — the worst kind of trouble is in store. Trouble you can't see. Honeycombing trouble in the "bottom inch".

But there's a way out . . . If you lay concrete on a sheeting of IBECO waterproof kraft, you can safely lay your reputation with it. For no moisture can get through IBECO, which is bitumenised *in the actual process of making*. The bitumen is part of the paper's very fibres — not a skin to crack and peel with handling.

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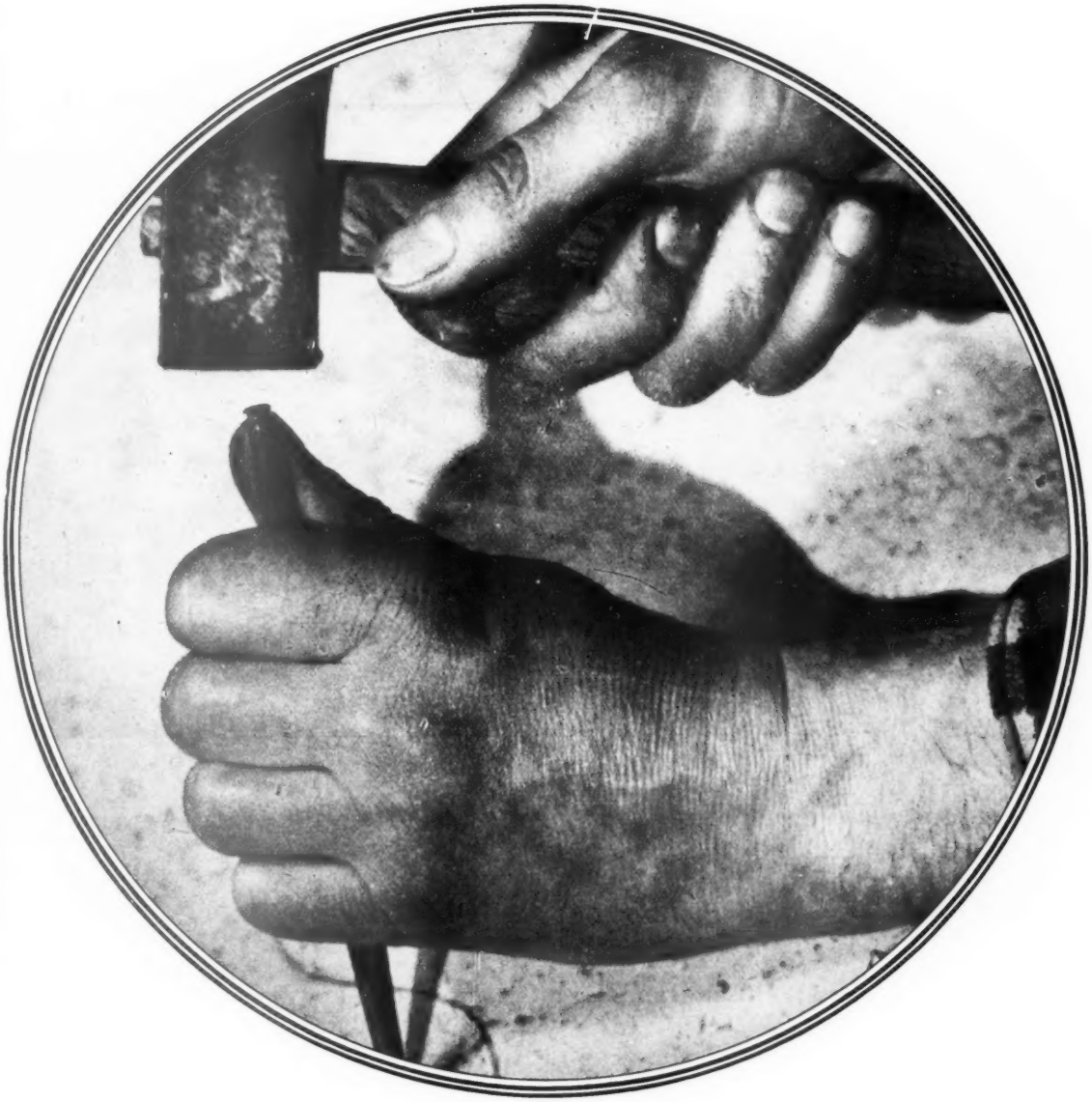

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B

THE ARCHITECTS' JOURNAL

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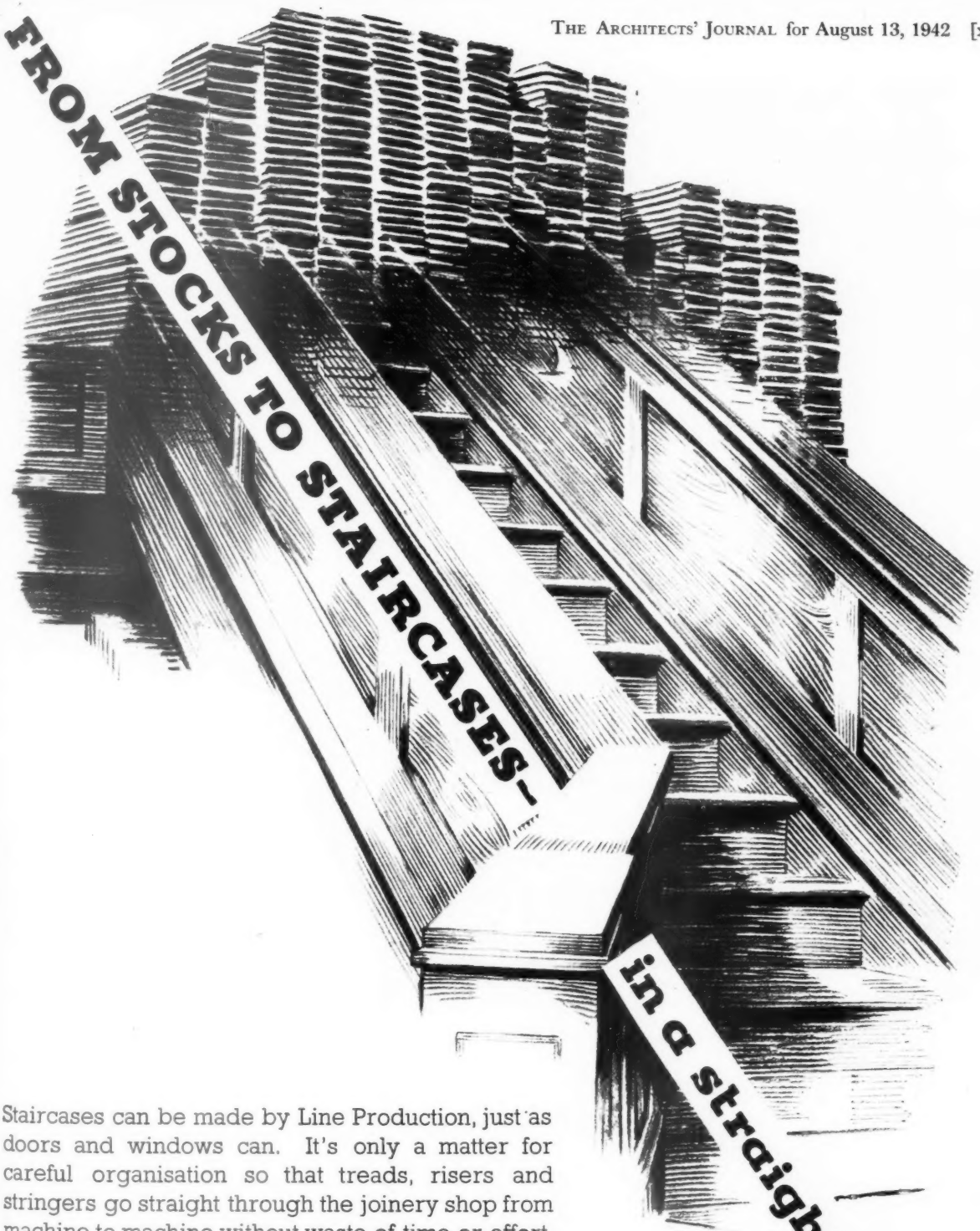
The Editor will be glad to receive MS. articles and also illustrations of current architecture in this country and abroad with a view to publication. Though every care will be taken, the Editor cannot hold himself responsible for material sent him.

THURSDAY, AUGUST 13, 1942. NUMBER 2481: VOLUME 96

PRINCIPAL CONTENTS

The fact that goods made of raw materials in short supply owing to war conditions are advertised in this JOURNAL *should not be taken as an indication that they are necessarily available for export.*

Owing to the paper shortage the JOURNAL, *in common with all other papers, is now only supplied to newsagents on a "firm order" basis. This means that newsagents are now unable to supply the* JOURNAL *except to a client's definite order.*



Staircases can be made by Line Production, just as doors and windows can. It's only a matter for careful organisation so that treads, risers and stringers go straight through the joinery shop from machine to machine without waste of time or effort. Magnet Joinery make thousands of good staircases one after the other in a straight line.

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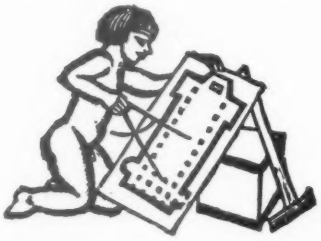
WHITLEY STREET, BINGLEY, YORKS • KNARESBOROUGH, YORKS
WEST THURROCK, GRAYS, ESSEX • ANNE ROAD, SMETHWICK, BIRMINGHAM

Stoneham and Kirk

Photo by courtesy of the Farnham Gas and Electricity Co., and of Farnham Urban District Council.

In common with every other periodical and newspaper in the country, this JOURNAL *is rationed to a small proportion of its peace-time requirements of paper. This means that it is no longer a free agent printing as many pages as it thinks fit and selling to as many readers as wish to buy it. Instead a balance has to be struck between circulation and number of pages. A batch of new readers may mean that a page has to be struck off, and conversely a page added may mean that a number of readers have to go short of their copy. Thus in everyone's interest, including the reader's, it is important that the utmost economy of paper should be practised, and unless a reader is a subscriber he cannot be sure of getting a copy of the* JOURNAL. *We are sorry for this but it is a necessity imposed by the war on all newspapers. The subscription is £1 3s. 10d. per annum.*



from AN ARCHITECT'S *Commonplace Book*

"Here lies the remains of James Pady, brickmaker, late of this parish, in hope that his clay will be remoulded in a workmanlike manner, far superior to his former perishable materials.

Keep death and judgment always in your eye,
Or else the devil off with you will fly,
And in his kiln with brimstone ever fry :
If you neglect the narrow road to seek,
Christ will reject you, like a half burnt brick."

Epitapth from Aliscombe, Devonshire.

NEWS

★ *A National Brick Advisory Council has been formed* *page* 99

★ *Some* 28,000 *workers, due to be called up, are to be left in the building industry until October to tackle the new building programme* *page* 112

ST. CLEMENT DANES

The crypt of St. Clement Danes in the Strand, which was closed nearly a century ago, was rediscovered last Friday by Mr. E. A. Young, F.R.I.B.A., Chairman of the Church Council. The church was blitzed and burned to a shell in May, 1941. Mr. Young, who came across the entrance to the crypt when investigating the foundations for the reconstruction of the building after the war, made the following statement to the *Daily Telegraph:*

"From old plans we saw signs of stairs. On taking up the slab we found that it covered a flight of steps to the crypt. This had been closed since the passing of an Act in 1851 forbidding further interments in urban areas. Our object in searching was to look at the foundations of the church which we hope some day to restore. We found that the crypt extends under more than half the area of the church. When Wren rebuilt the church he did not disturb the eastern half, which was an old mediaeval church. He also left the old western tower. All the interments made there in the Middle Ages still rest in the crypt. It is probable that City merchants and men whose names were well known years ago are in the crypt. King Canute's son is buried on the site of St. Clement's."

BUILDING FOR AMERICAN ARMY

On Friday last Colonel McKeachie, General Purchasing Agent, U.S.A. Forces, and Lord Portal, Minister of Works and Planning, congratulated 300 men of the building industry on the completion in nine days of a rush building job, somewhere in England, for the American Army which was expected to take 42 days.

The task was to convert two floors of a departmental store into offices for the American General Purchasing Board involving the erection of partitions, installation of lighting, heating and telephone systems. On Thursday, July 30, 40 men (30 carpenters and 10 labourers) started work. On Friday an appeal for volunteers was sent out to Ministry of Works Depots for men to give up their Bank Holiday Monday and to work on the job over the week end. Over a hundred came forward willingly. The Ministry of Labour co-operated to the full.

The men worked continuously in twelve-hour shifts. Eight-foot partitions containing 47,000 super feet of wall-board and 1,650 cubic feet of timber, braced by 5,000 feet of tubular scaffolding which had only recently been removed from Victoria Tower (Palace of Westminster) were erected to form offices for

Part of the new Waterloo Bridge was opened to traffic last Tuesday. Work on the bridge was started in 1937 from the designs of Rendel, Palmer and Tritton in collaboration with Sir Giles Gilbert Scott, R.A. Above view was taken between the new and the temporary bridge.

Lord Justice Scott

In October last MOWP, in consultation with the Ministry of Agriculture, appointed a committee to consider the conditions which should govern buildings and other constructional development in country areas consistently with the maintenance of agriculture and, in particular, the factors affecting the location of industry. It is expected that the report of this committee, of which Lord Justice Scott is the Chairman, will be published within the next few days. Born in 1869, Lord Justice Scott was educated at Rugby and New College, Oxford. He was Member of Parliament for Liverpool from 1910 to 1929 and served as Solicitor-General in 1922. He was chairman of the Acquisition of Land Committee, 1917-1919, whose reports led to the Acquisition of Land (Compensation) Act, and the Agricultural Organization Society, 1917-1922; and is a member of the Executive Committee of the Council for the Preservation of Rural England.

the Americans.

The Paper and Timber Controllers also played their part. All the wall-board and timber required were dispatched on verbal request before the necessary authorisation had been signed.

IN PARLIAMENT

Architects Registration Council.—Miss Rathbone asked the Home Secretary whether he was aware that the Architects' Registration Council was refusing scholarships to all aliens as such though admitting them to the register on payment of the same fees as British students; and, as the Act under which the said council was constituted stipulated that at least half of the fees received should be used for the provision of scholarships for the assistance of students of architecture of insufficient means, would he obtain parliamentary powers of intervention to prevent action which debarred a considerable number of students from the benefits of the scholarship which the Act required the council to establish ?

Mr. H. Morrison, in reply, said that the Act of 1931 provided that the Architects' Registration Council should devote at least half the fees received for the provision of scholarships and maintenance grants in such manner and on such conditions as the council might determine, but there was no requirement to exclude aliens from these awards. He had no responsibility for the council's decision in these matters, nor would he feel justified in seeking power to intervene.

Post-War Reconstruction.—Mr. Silkin asked the Paymaster-General when he would make a statement on the activities of his Department ?

Sir W. Jowitt said he did not think that he could usefully add very much at present to the statement made by the Deputy Prime Minister in reply to Mr. Kirby on July 16. As Mr. Silkin would appreciate from that answer, his duties were essentially of a co-ordinating character, and it fell to the Departmental Ministers severally responsible to announce their plans for dealing with their particular reconstruction problems.

Mr. Silkin asked the Paymaster-General what were the names, duties and salaries of his staff?

Sir W. Jowitt replied: "I assume that my hon. Friend is referring to the staff assisting me and the Ministerial Committee on Reconstruction Problems and not to the far larger staff of the Paymaster-General's Office at Somerset House. The former is at present constituted as follows:—

	£
Secretary—	
(Sir Alfred Hurst, K.B.E., C.B.) ..	3,000
Assistant Secretary—	
(Sir Quintin Hill, K.C.M.G., O.B.E.) ..	1,953
1 Principal (Private Secretary to the Paymaster-General) (T. Daish, M.C.)	1,300
6 Temporary Administrative Officers, (A. S. J. Baster, Miss P. Callard, C. V. Davidge, Mrs. M. A. Hamilton, Mrs. J. J. Hawkes—one vacancy)	3,610

with clerical, etc., assistance.

"In addition to office duties of the general character indicated above, members of this staff act as Chairman, Member or Secretary of various inter-departmental committees concerned with particular problems or groups of problems of reconstruction."

Building and Civil Engineering Contracts.—Mr. Leslie Boyce asked the Secretary of State for Air whether he was aware that local firms of building and civil engineering contractors had given undertakings at the request of the Government, both directly and through the Builders Emergency Organisation, regarding their ability and capacity to carry out large contracts; and why these firms were being ignored by his Department and preference given to large financial firms and their subsidiaries?

Mr. Hicks, Joint Parliamentary Secretary, MOWP, said he had been asked to reply. He was aware that assurances had been given regarding the ability and capacity of local firms of building and civil engineering contractors to carry out large contracts and careful attention was paid to these assurances. He was informed by his Friend, the Secretary of State for Air, that local firms judged capable of executing these contracts within the requisite time were not ignored and preference was not given to large financial firms and their subsidiaries.

Building Development.—Mr. Bossom asked the Parliamentary Secretary, MOWP, whether Mr. Jellicoe had yet delivered an account of his findings in the United States of America; and what action did his Ministry contemplate taking as a result of this American visit?

Mr. Hicks said the answer to the first part of the Question was in the negative, but it was expected that Mr. Jellicoe would shortly place before the Central Council for Works and Buildings a report giving the information he had obtained in the United States of America. This report would be considered by the Education Committee of the Council in relation to their inquiry into conditions of education and training for the building industry and until that Committee had completed its inquiry and made its report the Ministry did not contemplate taking any action as a result of Mr. Jellicoe's American visit.

NEW SCHOOL

Mr. W. H. Ansell, P.R.I.B.A., has accepted the invitation of the North Riding of Yorkshire Education Committee formally to open the new school at Scalby, near Scarborough, designed by Mr. F. X. Velarde, F.R.I.B.A., on September 18.

PRICE REGULATION

The President of the Board of Trade has appointed Mr. J. H. Thorpe, O.B.E., K.C., to be Chairman of the Central Price Regulation Committee in succession to Mr. Raymond Evershed, K.C., who has been appointed a Regional Coal Controller by the Minister of Fuel and Power. Mr. Thorpe has been Recorder of Blackburn since 1925 and is Deputy Chairman of the Middlesex Quarter Sessions. He was M.P. for Manchester (Rusholme) in 1919-1923.

HICKS AND BRICKS

IN September last Lord Reith, then Minister of Works and Buildings, appointed a committee, under the chairmanship of Mr. Oliver Simmonds, M.P., to advise him on the steps to be taken for increased efficiency and economy in the manufacture of bricks. The terms of reference were: to advise on steps to be taken to secure adequate output, maximum co-ordination, pooling of resources and information; economy of manufacture, introduction of more scientific methods and labour and transport problems. At the same time Mr. L. W. Hutson, Deputy Director of Bricks for Scotland, took over the position of Director of Bricks in succession to Mr. T. P. Bennett. The first report of this committee, presented to Lord Reith at the end of last year, was published in March; it was followed by a second report which came out at the end of June.

The first report recommended, among other measures, the compulsory closure of brick works[1] with the object of adjusting the output to current falling demand, and suggested a scheme for contribution towards the care and maintenance of these closed works, so as to ensure that they would be kept in a condition to resume production immediately after the war to meet the anticipated urgent demands for reconstruction. The second report was to some extent complementary to the first, as many of the recommendations arose from the problem of selecting works for closure; it also called for the formation of a National Brick Advisory Council.

The Minister of Works and Planning's decisions on the recommendations made in the second report were announced by Mr. George Hicks, Parliamentary Secretary, MOWP, in the House of Commons last Thursday. Here is a summary of the decisions, 1. The proposal for the formation of a National Brick Advisory Council for the industry was accepted, with Mr. L. W. Farrow, a chartered accountant, as Chairman, 22 members[2] and three technical advisers. Functions of the Council are: (a) price fixing; (b) quotas; (c) operation of the Care and Maintenance Scheme; (d) over- and under-sales scheme; (e) the best means of effecting correlation of production and demand; (f) co-operation with the Ministry and the appropriate research bodies on matters affecting the production of bricks; (g) to perform such other functions as the Minister may specify from time to time, and to advise on all and any other questions concerning the brick industry, including transport, labour, fuel and other problems affecting output. 2. The principle of Minimum Prices is agreed. Separate minimum "at works" prices will be established for each type of common brick in prescribed areas, and also corresponding maximum prices. The areas will correspond to those for which Area Councils may be established in connection with the National Brick Councils, with such sub-division as

[1] At June 25 200 works had been closed or transferred to drain tiles.

[2] The constitution of the Committee appears on page 100.

special circumstances may require. Prices will be fixed by Regulation and determined by the Ministry of Works in accordance with Government policy. The Minister has agreed to the principle of minimum prices in order to ensure an equitably distributed wartime production of bricks, and to maintain the industry in a healthy condition for post-war production. At the same time maximum prices will be established. Both maximum and minimum prices will be fixed in accordance with Government principles. 3. The quota plan recommended by the Committee is agreed in principle, subject to the review of the allocation of trade at least every three months. The administration of the plan will be in the hands of MOWP. Although it was the desire of the Committee to institute area quotas on a fixed basis, subject only to variation from time to time within pre-determined limits, the Minister has indicated in his decision that he reserves the right to revise the allocation of quotas as frequently as the situation in each area may demand. 4. The recommendation of a scheme in the operation of which undertakings will pay in to a fund for over-sales, and draw out for under-sales, is approved and it is proposed to arrange for the issue of the necessary Regulation. 5. Current national output of bricks will be reduced from time to time (not necessarily at regular intervals), in order to balance supply and demand, and to maintain stocks at a proper level. This reduction will be effected in part by closure of works. An Appeal Tribunal on closure decisions will shortly be set up. This Tribunal will consist of representatives of the Ministry of Labour and National Service, Ministry of Fuel and Power, Ministry of War Transport and representatives of brick manufacturers from areas other than those in the areas concerned. The Tribunal will have an independent chairman.

We are obviously going to see action by the Advisory Council. Last Friday—the day following the announcement of the Minister's decisions—it held its first meeting, surely a record for any Government committee.

★ CONSTITUTION OF COUNCIL.—Chairman: L. W. Farrow, F.C.A. Members nominated by the industry in area groups and Associations are as follows: T. R. C. Hurll, of Messrs. P. & M. Hurll Limited and Gilbert Morrison, of Niddrie & Benhar Coal Co., Ltd. (Scottish brick manufacturers); J. Dobson, of Horden Collieries, Ltd. (northern brick manufacturers); H. L. Hartley, of Hartleys (Castleford), Ltd. and E. C. Payne, of Sheffield Brick Co., Ltd. (North-Eastern manufacturers); T. Harrison, of Messrs. J. & A. Jackson Ltd., W. Heaton, of Ravenhead Brick Co., Ltd. and J. Fielding, of Fielding & Sons (Blackpool) Ltd. (North-Western manufacturers); E. Taylor, of East Midlands Brick Mfrs. Assoc. (East Midlands manufacturers); J. H. B. Dixon, of Messrs. H. M. Grant & Co., Ltd. and N. J. Wigley, Midland Federation of Brick & Tile Manufacturers (West Midland manufacturers); W. S. Courtis, of Phœnix Brick Co., Ltd. (South Wales & Monmouthshire manufacturers); J. Chalker, of Fison Packard & Prentice Ltd. (Eastern manufacturers (non-fletton)); Colonel C. W. D. Rowe, of London Brick Co., Ltd., Sir Horace Boot, of Eastwoods Limited and S. A. Garner, of Marston Valley Brick Co., Ltd. (Eastern manufacturers, Pressed Brick Makers' Association, Limited); E. ffinch Mitchell, Sussex & Dorking United Brick Co., Ltd. (Southern manufacturers); E. Gwynne Vevers, of Cattybrook Brick Co., Ltd. (South-Western manufacturers); M. O. Gill, of London & Rochester Trading Co., Ltd. (Stock Brick manufacturers); R. E. Barringer, Manfield Standard Sand Co., Ltd. (Sand Lime Brick manufacturers). In addition, the Minister has invited L. H. Pearmaine, of the Transport and General Workers Union, and H. L. Bullock, of the Municipal and General Workers Union, to become members of the Council. The following will act as Technical Advisers: A. T. Green, Director of Research, British Refractories Research Association; Dr. F. M. Lea, of Building Research Station, and Dr. J. G. King, of Fuel Research Station (both nominated by the Department of Scientific and Industrial Research).

The Architects' Journal
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NOTES & TOPICS

THE PRE-RAPHAELITE TRAGEDY

William Gaunt's excellent *The Pre-Raphaelite Tragedy* has a scene at Kelmscott, the tiny Oxfordshire village where, you will remember, Rossetti and William Morris set up house together seventy years ago. It is difficult, even in these days of enforced joint ménages, to imagine a partnership less likely to succeed; Morris, the dynamic, early-rising Hearty; and Rossetti, the drug-haunted insomniac, indolent, sensual and exotic. The arrangement, in fact, lasted only a couple of years; Rossetti disliked the country as much as the furnishings of his bedroom. He found Dizzy, the old dog, the only person sympathetic to him, and soon left for London after picking a trivial quarrel with some local anglers. As for Morris, he spent much of their joint tenancy pursuing sagas in Iceland.

★

It was one evening after his return that he sat reading to Rossetti the rambling tales of Sigurd, Fafnir, Njal and Gudrun until, relates Mr. Gaunt, Rossetti lost patience, and exclaimed that nobody could be seriously interested in a man who had a dragon for a brother. Morris eyed him stonily. "Better a dragon," he said, "than a bloody fool."

★

Kelmscott to-day is much the same as when these two knew it—flat, water-meadows, huge bulging elms,

The West front of the Pump Room at Bath by Willey Reveley, an architect of outstanding ability, who was notorious apparently even in his own day for not being able to hold a job when he got one. The west front was the only part of the pump room he built. Astragal refers to a note about him in the Gentleman's Magazine *for July,* 1799. *Reveley did the Pump Room, West front, in* 1792. *The reason why he didn't go on with the building is supposed to have been that the town council developed economy mania, but no doubt there was other trouble too. He died quite young in* 1799, *but he left behind at Bath at least one finished job, Camden Crescent. It is one of the most delightful of the residential crescents, and will not be forgotten while Jane Austen is remembered. It was not damaged in the Bath Baedeker raids.*

dusty roads and stone cottages—"the doziest clump of beehives," wrote Rossetti, "that you ever saw."

★

Morris's grave lays in a dark corner, the playground of a tabby cat stalking some hens. It is a pleasantly formed monument, bearing in large Kelmscott lettering upon its sloping sides the names of William, Jane and May Morris. Does Mr. Pevsner perhaps, know the designer?

WILLEY REVELEY

Of Willey Reveley, whose part in the Pump Room at Bath I mentioned recently, there is in *The Gentleman's Magazine*, for July, 1799, a reference that may have some connection with this building. "He was once tantalised with the flattering expectation of being employed at Bath in erecting a suite of buildings for a new arrangement of the baths in that city. He accordingly made designs of great beauty and elegance, replete with convenience, full of rare contrivance, and disposed in an original style of accommodation. But this hope passed away, as Mr. Reveley's hopes were very apt to do."

★

The last words are very singular.

★

It seems that Reveley was in the habit of expressing his thoughts plainly, and this trait was the cause of his many disappointments, his employment being frequently abruptly terminated by the other party. The eighteenth century loved a veneer of artificiality which Mr. R. in his talk would not provide.

★

Typical was an incident at Canterbury. The committee, which had chosen Reveley's design for an Infirmary, desired to give the work to a builder to carry out without Willey's professional help. "In case of great danger, as well apply to an apothecary, when you should consult a physician," stormed the architect.

★

Needless to say one of the committee *was* an apothecary.

PLANNING AGAINST NOISE

A short time ago when the R.I.B.A. Reconstruction Committee presented its interim reports, several speakers deplored the fact that the results of building research so seldom penetrated the consciousness of architects. Work done on sound insulation by the B.R.S. was cited as an example.

★

Mr. Hope Bagenal's book (see page 102) should do something to remedy this particular shortcoming. It deals briefly with the theory of sound transmission, amplification and absorption, and gives a clear description of practical methods of sound proofing and of providing good acoustic conditions.

★

One wishes, however, that the term planning against noise had been given a rather wider interpretation seeing how difficult and expensive it is to exclude unwanted sound. For instance, Mr. Bagenal says: "If traffic noise is to be excluded windows must be kept shut. Attempts to soundproof open windows have been made by firms in the past accompanied by determined advertising, but the fact remains that a shut window keeps out the sound best."

★

Mr. Bagenal then goes on to discuss open window equivalents because, as he very rightly remarks: "In England when rapid changes of temperature occur people like to open windows from time to time and then close them." It would be even more interesting to know how far from a street a window must be before one can have it open in comfort.

★

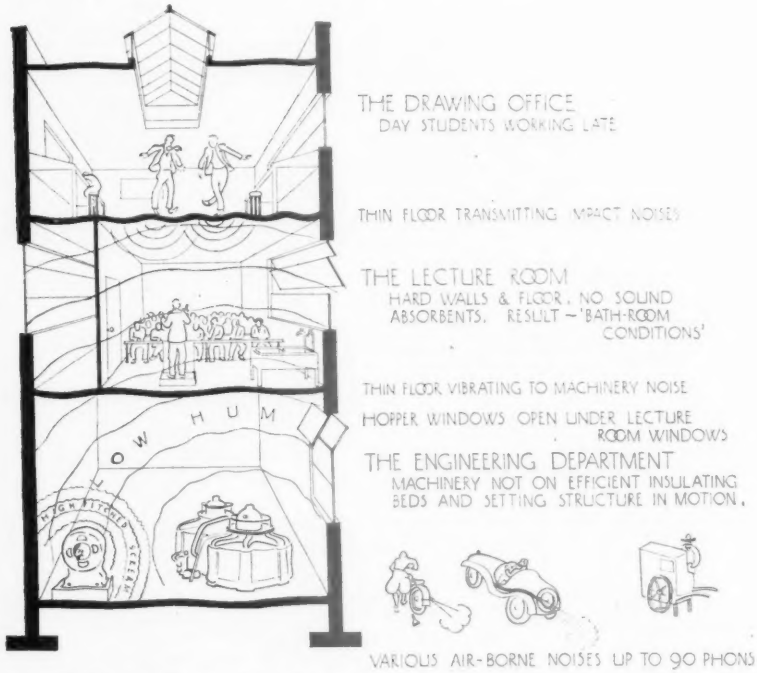
It would also be interesting to know which is likely to cause more annoyance, noise coming from an open window a few feet away but facing in the same direction and possibly recessed, or noise coming from a window 60 feet away but directly opposite.

★

So far the idea of planning against noise has been thoroughly worked out only in relation to the insides of single buildings, when the main

THE TECHNICAL SCHOOL

DIAGRAM OF A LECTURER TRYING TO IMPART KNOWLEDGE TO AN EVENING CLASS UNDER COMMON ACOUSTIC CONDITIONS



from Hope Bagenal's new book, Practical Acoustics and Planning against Noise. (*Methuen* 7/6).

problem is to prevent the transmission of sound through the structure. If someone were to study groups of buildings designed complete with road access they might be led to attach much greater importance to air-borne noise. Roughly the principle appears to be that you cannot hear noise from a source you cannot see. It would be interesting to have this principle worked out exactly in terms of building layout.

SECOND FRONT

Of course, it was bound to happen. The railings, good, bad and indifferent, were swept away for scrap, and for a few happy weeks the gardens stretched down to the street —charming, open and friendly.

*

Now comes the backwash of tattered hurdling, crazy rockwork, old tennis balls and broken crockery set in cement. Most of all, perhaps, because most common, dwarf battlements carried out in pale pink flettons jointed with black mortar.

ASTRAGAL

LETTERS

R. PERRY
Executive Office, Committee for Industrial and Scientific Provision of Housing

JOSEPH BABBS, F.I.A.A.S.

GEORGE C. OLDHAM, L.R.I.B.A.

Prefabrication

Dear Sir,—We feel that the heading of your leading article in your issue for July 30 does Mr. Coppock a grave injustice. He does not suggest that talk about prefabrication is "nonsense." On the contrary, he makes a very definitely sound statement, namely, that whether or no houses are to be prefabricated or built by traditional methods is at present irrelevant. This statement is sound because there is no general information or code of practice relating to prefabrication and it is absolutely certain that, if the war were to end to-day, it would not be possible to implement any large-scale schemes of prefabricated building.

On the other hand, Mr. Coppock indicates quite clearly that the building industry will be short of personnel and he also states that we cannot wait for twenty years to build the houses required which we should have to do unless there could be either a vast expansion of industry or, in addition to the traditional methods, some type of factory production in which we can call upon the aid of machines.

This Committee is working to find out how this can best be done in collaboration with the existing industry and with a minimum of disturbance to it or competition with it, for clearly such would raise the greatest social difficulties.

Again, probably the least of the problems associated with the prefabrication of houses is that of technique, particularly if we really get down to modern mass-production method for the parts and equipment of houses. The basis of this method is the placing of very large orders and the ensuring of large-scale distribution and Mr. Coppock has indicated that the major problems behind these essentials are the use of land and the elimination of monopoly interests. The Committee is fully alive to these points and, in parallel with its technical investigations, is making such enquiries as it can into them.

The whole enquiry will clearly be a lengthy one and this lends point to Mr. Coppock's remarks since he asks, " can we expect to be ready for peacetime development overnight ? " The problem is urgent and the Committee therefore hopes that any of your readers who are interested in the problems will communicate with us for we need all the help, advice and constructive criticism which we can get.

R. PERRY
Executive Officer

Unity in the Architectural Profession

Sir,—As a surveyor member of the I.A.A.S., with no authority to speak for architect members and none for the I.A.A.S. Council, I would nevertheless say that, in my opinion, the letter from the General Secretary, I.A.A.S., published in your issue for July 9, does not represent the views of the majority of the members of that body.

As I see the matter, the construction of the I.A.A.S. is necessarily different from that of the R.I.B.A. The R.I.B.A. is the oldest architectural body in the country, but it should be remembered that out of the past 1,000 years of building its auspices cover little more than a century. Moreover, though it represents the first attempt to organize and codify the architectural profession, ever since its inception there have been those who, for reasons of conscience or temperament, have found themselves unable to submit to a self-electing organization.

These non-conformists have included some of our most eminent architects, but in recent years it has become increasingly difficult to resist the pressure of numbers, and even the non-conformists have had to organize themselves—hence the I.A.A.S. and other " alternative " bodies.

RECORDING BRITAIN: WINDSOR CASTLE

At the beginning of the War the Ministry of Labour and National Service set up a Committee on the utilisation of Artists' Services in Wartime. One of the objects of this Committee has been to arrange for a Record of the changing face of Britain by artists whose normal livelihood has been interfered with by war conditions. The subjects recorded include tracts of landscape, villages, and buildings which are threatened with destruction or disfigurement from various causes. The whole project has been made possible by generous grants from the Pilgrim Trust. A selection of the drawings made in the first season of the record was exhibited at the National Gallery last summer. That Exhibition aroused widespread interest and drew thousands of visitors. The work of recording has since proceeded steadily, and has been extended to a number of areas not included among the twenty-one Counties represented in last summer's Exhibition. The present Exhibition consists of a selection of about 200 drawings of subjects in twenty-one Counties in England and Wales, of which more than half are areas previously untouched. An additional feature of the present Exhibition is a group of drawings of Windsor Castle by Mr. John Piper, lent by H.M. The Queen by whom they were commissioned as a result of last year's Exhibition. Three of these drawings are reproduced on this page.

The letters of F.R.I.B.A. and of the General Secretary, I.A.A.S., typify architectural politics at their worst—thank goodness they have not found publication in the general press; but even so, can it be rightly inferred that the system from which they spring is utterly discreditable?

There is an assumption that unity is desirable; so it would be in ideal conditions, but would we surrender the present parliamentary system—with all its disunity and occasional lack of dignity—for the UNITY which Hitler seeks to impose?

JOSEPH BABBS.

Sir,—The impression one gets from the letters of your correspondent F.R.I.B.A. is that he, like so many others to-day, considers classroom examination the real test of a man's ability.

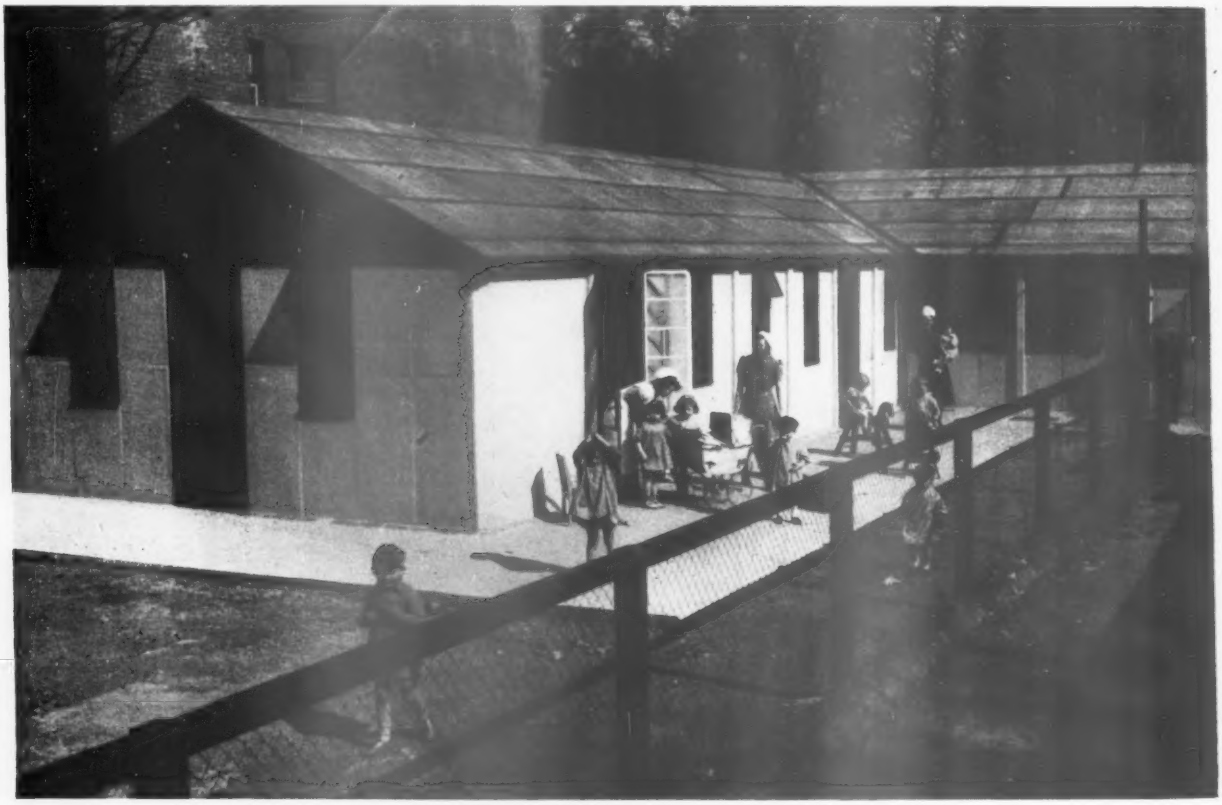
One is tempted to ask F.R.I.B.A. whether he values his Fellowship (to which he was elected) more, or less, than his Associateship (for which he was examined)? Which does he consider the better proof of his practical ability?

Referring to his original suggestion that all remaining registered architects should be made licentiates: I can but repeat my belief that the Royal Institute would not for one moment consider this suggestion, and, I am happy to say, evidence has come to me from various authoritative sources that this belief is not ill-founded. In other words, the prestige and integrity of the Licentiate class is to be maintained.

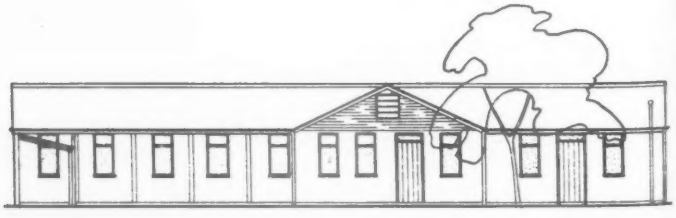
GEORGE C. OLDHAM.

The Cement and Concrete Association's exhibition of day nurseries coincided with the completion of a number of the earliest hutted nursery schemes to be built, and also with a decision by the Ministry of Health to adopt a new type of concrete hut for future Day Nurseries. The exhibition, which is to be shown throughout the country, thus has two objects: 1, to show how problems of siting, planning, finish and details, which are common to all hutted nurseries, have been overcome; 2, to provide information on the types of hut now available for nurseries. Four of the nurseries exhibited are illustrated in this issue; also, on pages 107-110, we reproduce details of nine prefabricated huts recently exhibited by MOWP. Two of these huts, Maycrete and Nashcrete were used for the nurseries.

HUTTED DAY NURSERIES

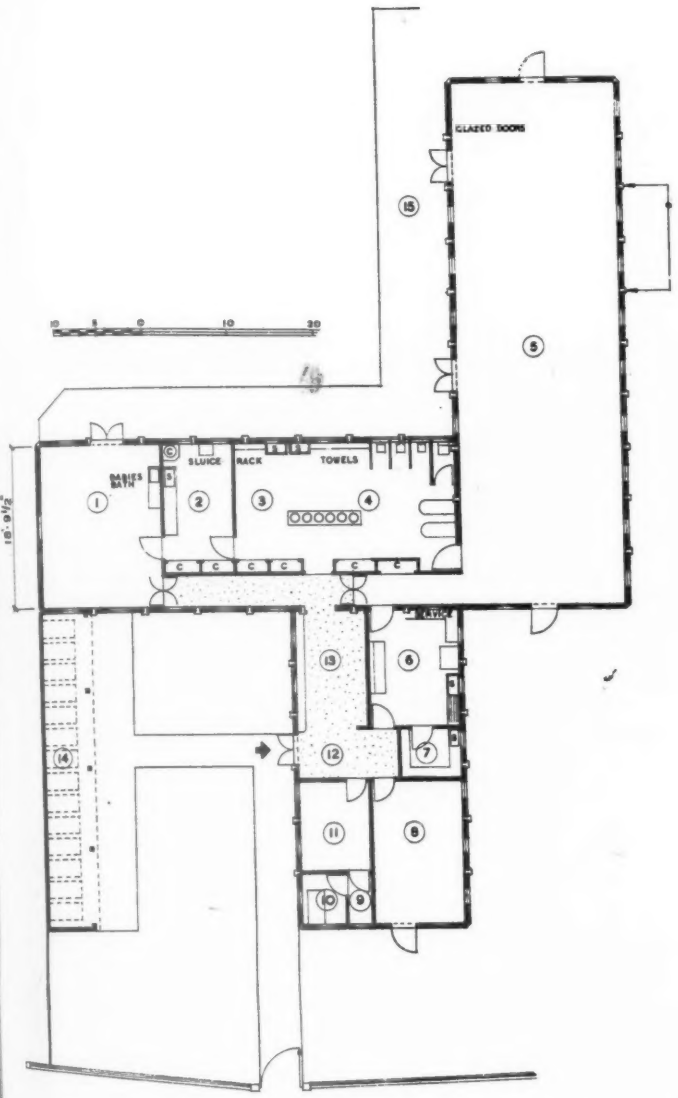


1. HAMMERSMITH

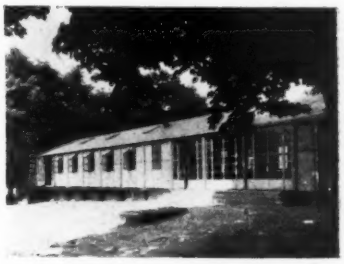


This nursery, for 45 toddlers and 10 babies, was built for the Borough of Hammersmith under the direction of F. Douglas Barton, Borough Engineer and Surveyor. A second nursery, for 50 children, is nearing completion. Besides these two hutted buildings, the

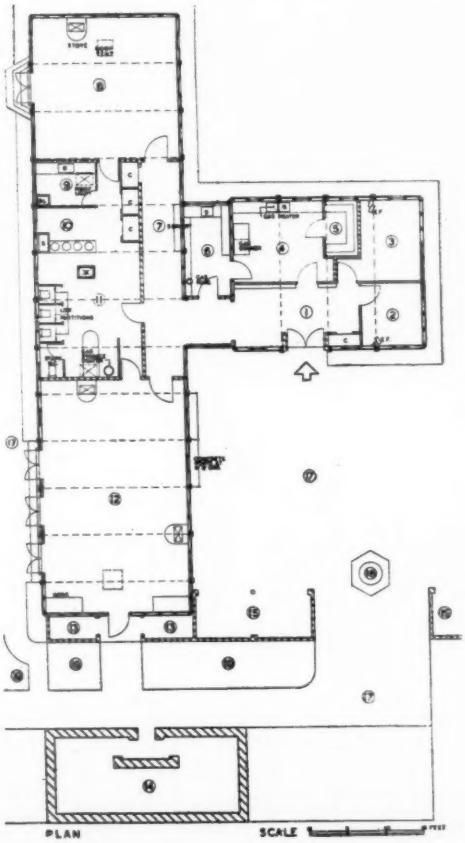
2. BARNET



1, Entrance Hall; 2, Matron; 3, Staff; 4, Kitchen; 5, Store; 6, Milk Room; 7, Coat Hall; 8, Babies' Nursery; 9, Sluice Room; 10, Wash Space; 11, Lavatory; 12, Toddlers' Nursery; 13, Fuel; 14, Shelter; 15, Perambulator; 16, Fountain; 17, Tarmac; 18, Existing Pavilion; 19, Grass; 20, Future Extension.



Before the war there were no County Council Nursery Schools in Hertfordshire, but in order to assist the Government evacuation scheme, 15 part-time nurseries were opened between December, 1939, and December, 1941. In addition, eight new wartime nurseries have been opened, and arrangements are being made to open a further twenty by the end of September. Of the total number



conversion of existing terrace houses is under consideration. It is an interesting point that the time and cost entailed in this conversion work is not very different from that of the hutted nurseries. The nurseries are available for the children of mothers in war work who are living in the Borough. Charge is one shilling per day per child and sixpence on Saturdays. Babies and toddlers are kept quite separate, the former having about 25 sq. ft. of dormitory space per head, and the latter an equal area of play space.

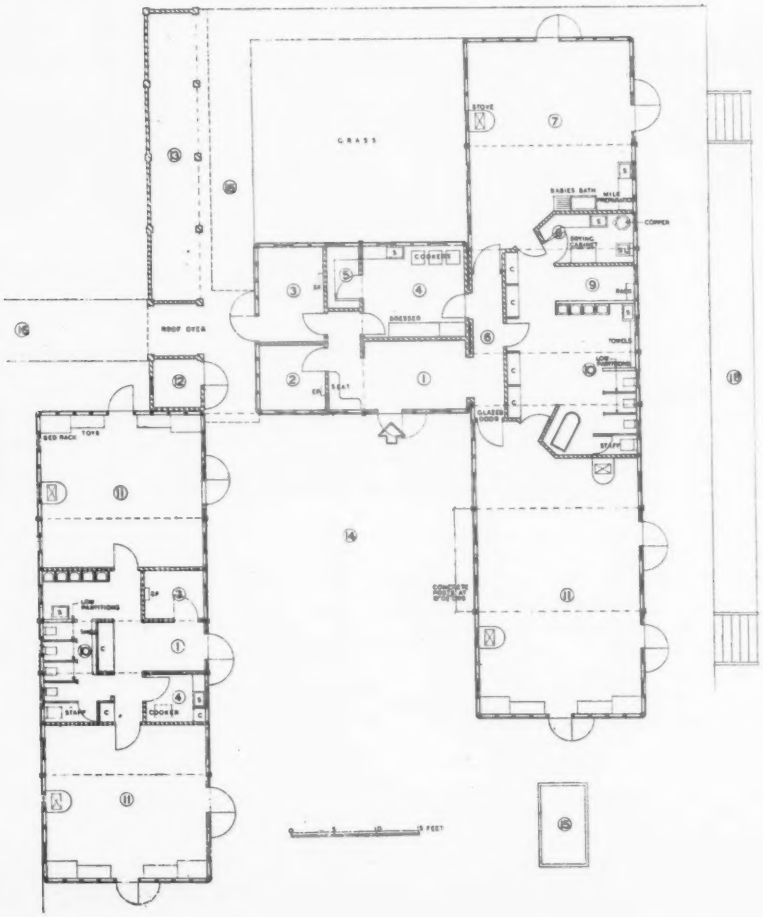
Nashcrete huts have been used for these nurseries; details of the framework and roof construction of this type of construction are printed on page 109. Other details of construction are: *Windows:* wood casements opening outwards, with top-hung top sashes. *Floor:* two layers of concrete with bitumastic between, 6 in. overall; linoleum finish. *Partitions:* hollow tile, unplastered. *Finishes:* the outside walls are treated with two coats cream distemper. The inside walls have two coats cream distemper, with apple green dados and a cheerful orange dado line; woodwork is in apple green oil paint. *Sanitary fittings:* toddlers' lavatories, toddlers' baths, washing facilities for babies and toddlers; staff lavatory; hot and cold water. *Heating and Lighting:* electricity throughout, with wall heaters in safe positions. Electric cookers in kitchen, and electric wash boiler in laundry.

Key to plan: 1, Babies' Room; 2, Laundry and Sluice; 3, Chambering Space; 4, Lavatory Accommodation; 5, Toddlers' Room (45 at 25 ft. super); 6, Kitchen; 7, Milk Room; 8, Staff Room; 9, Ventilated Lobby; 10, Isolation Room; 11, Matron's Room; 12, Reception; 13, Cloaks; 14, Pram Store; 15, Concrete Terrace.

Left, toddlers' playroom, Luton ; right, milkroom, Barnet.

open by this date, twenty-seven are converted buildings and sixteen prefabricated huts supplied through the Ministry of Health. It was found generally convenient for the County Architect to deal with additions to County Council school properties, and for a small group of individual architects to deal with other schemes. Thus the hutted schemes—Barnet (page 105) and Letchworth (page 107) are under the direction of Mauger and May and E. C. Kent. The Maycrete system has been used for the construction of these two nurseries ; details of the construction are given on page 109.

3. LUTON



This, the first wartime day nursery built by the Luton Corporation under the supervision of F. Oliver, Borough Engineer and Surveyor, has accommodation for 50—60 children ; a second similar nursery is now nearing completion. The plan is a combination of two plans for smaller day nurseries supplied by the Ministry of Health. There are three rooms for toddlers and one for babies, the largest being for 27 children. These rooms open on to a terrace by means of glazed doors with glazed sidelights, 6 ft. across in all. The area of place space per child in the toddlers' rooms is about 20 sq. ft., while in the babies' room there is rather more space since the milk preparation also takes place there. The small milk preparation room shown in the standard plan is used as a kitchen store, in order that food can be bought in fair quantities. In the washroom the separate chambering space is not found to be necessary, and will not be included in future plans.

The Maycrete system of construc-

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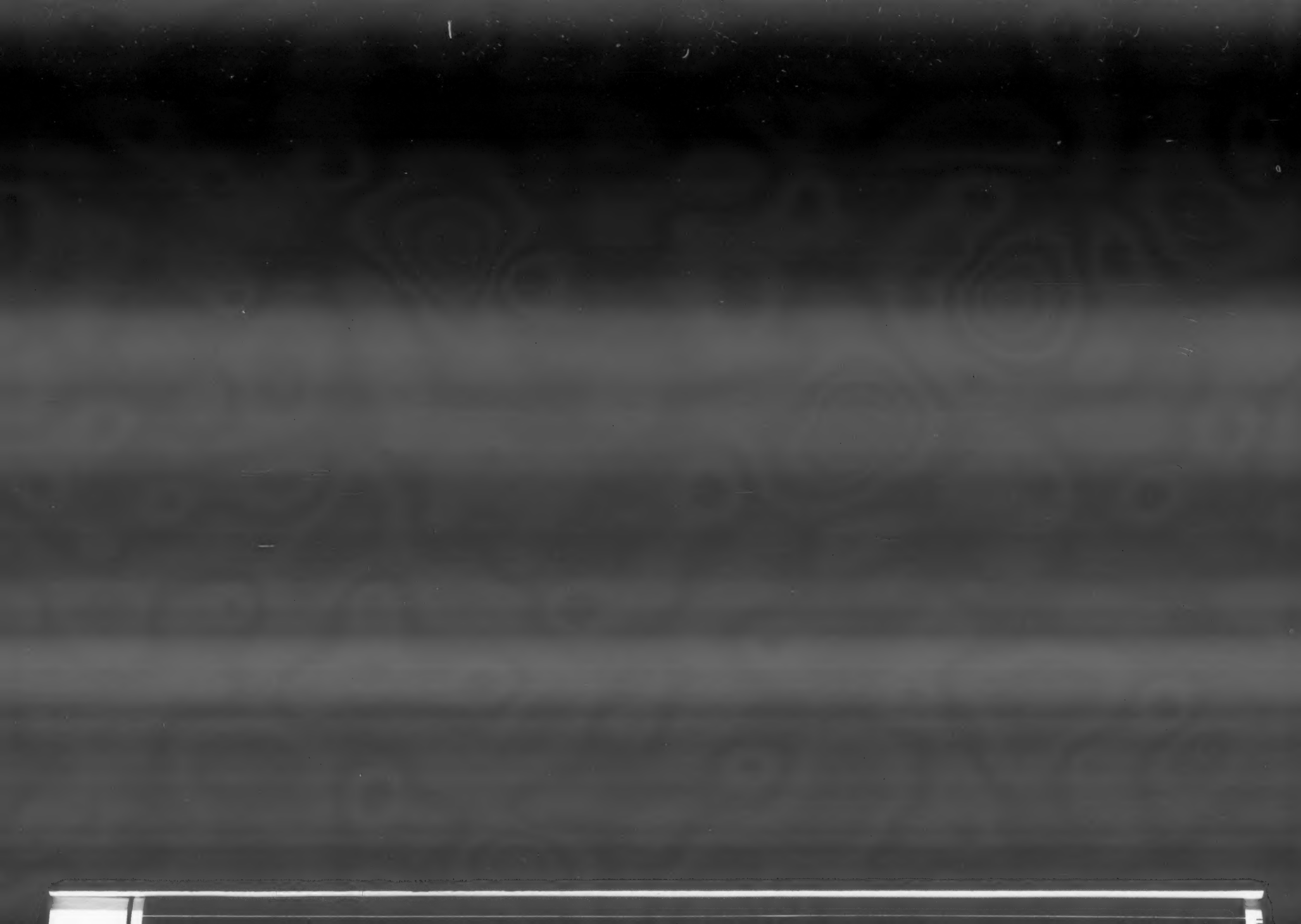

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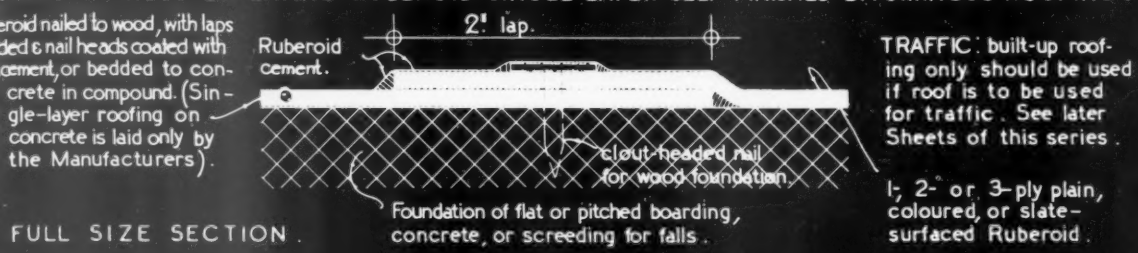
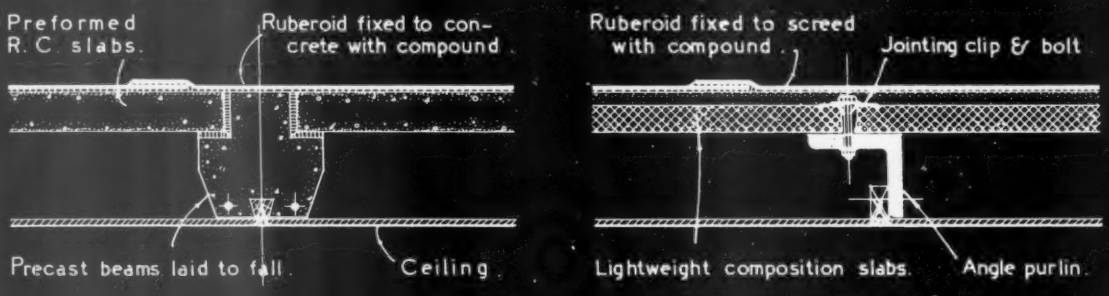
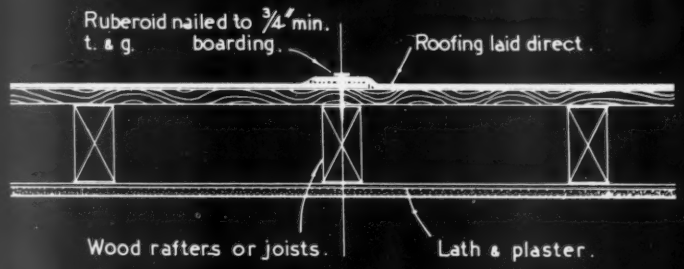
STANDARD METHODS OF LAYING RUBEROID SINGLE-LAYER SELF-FINISHED BITUMINOUS ROOFING:



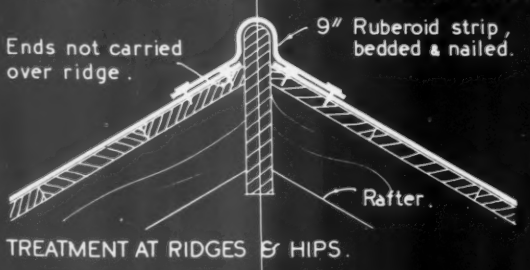
FULL SIZE SECTION.

EXAMPLES OF RUBEROID APPLIED TO PREFABRICATED & SEMI-PERMANENT ROOF CONSTRUCTION:

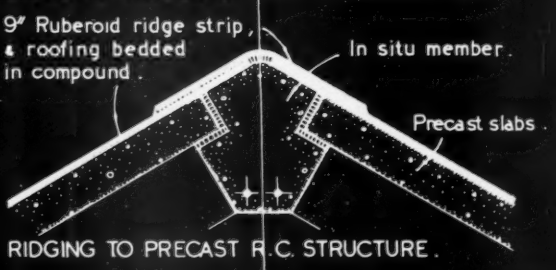




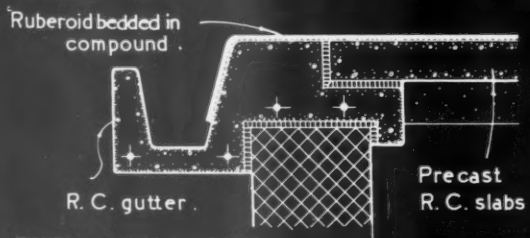
TYPICAL FINISHING DETAILS FOR SINGLE-LAYER RUBEROID IN TIMBER & SOLID CONSTRUCTION:



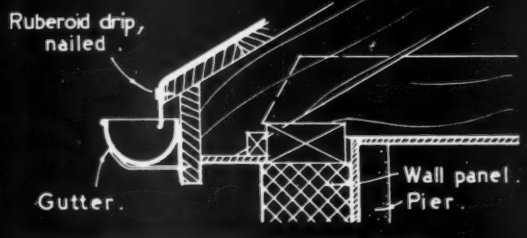
TREATMENT AT RIDGES & HIPS.



RIDGING TO PRECAST R.C. STRUCTURE.



FINISH AT PREFABRICATED EAVES.



LIGHTWEIGHT PITCHED TIMBER EAVES.

Issued by The Ruberoid Company Limited.

INFORMATION SHEET: SINGLE-LAYER FLEXIBLE SHEET ROOFING

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INFORMATION SHEET

• 873 •

ROOFING

Subject : Ruberoid 1 : Single-layer Ruberoid Roofing on Flat or Pitched Roofs of Wood or Concrete. (Ruberoid Specification Letter A).

Description :

Ruberoid consists of a fibrous sheet material designed to carry the maximum amount of weather-resisting bituminous compound and having tensile strength to withstand the stress and strain to which the roofing may be subjected. The type of base and bituminous compound varies according to the service the particular grade of Ruberoid is designed to give.

Properties :

The Roofing is low in prime cost. It is economical to maintain. Over 50 years experience shows that Ruberoid Roofs have a lower maintenance cost than that of other roofing materials. It can be fixed rapidly and is readily repaired if accidentally damaged.

Being flexible it can be laid on roofs of any shape. It is resistant to acid and alkali fumes and sea air and is a non-conductor of heat. It is unaffected by vibrations or extremes of temperature and is also damp- dust- and vermin-proof.

It does not require metal flashings and, as it is light in weight, it frequently enables a saving to be made in the construction of the roof.

Its low cost per year of service is one of its several advantages.

Sizes, Weights and Finishes :

The material is supplied in rolls 36 in. wide, containing 12 or 24 square yards (108 or 216 square feet). Its covering capacity is 100 square feet of roof to 12 yards of Ruberoid.

It is manufactured in various weights, finishes and colours, as follows :—

(1) *Ruberoid Standard Roofing, Grey.*

Made in three plies, of uniform quality, ranging in thickness.

1-ply (light) weighing 32½ lbs. per 100 sq. ft.
2-ply (medium) weighing 42½ lbs. per 100 sq. ft.
3-ply (heavy) weighing 52½ lbs. per 100 sq. ft.

(2) *Ruberoid Standard Roofing, Red.*

This is similar to standard grey Ruberoid, but is coloured red on its weather face. The colour is permanent and does not fade. It is supplied in 1 and 2-ply only, weights as above.

(3) *Ruberoid Super Roofing.*

This is constructed with a base of highly purified Solka cellulose fibre of great tensile strength. It is practically untearable, and is supplied in 2 and 3-ply only, weights as above.

(4) *Ruberoid Slate-Surfaced Roofing.*

This is similar in composition to standard Ruberoid roofing with a surface finish formed by rolling granules of natural slate into the surface, under pressure. It is supplied in three colours : Venetian red, Westmorland slate green and steel blue. Weight, 85 lbs. per 100 sq. ft.

Uses of the Various Types of Ruberoid :

The types of Ruberoid above are recommended for use as follows :—

Ruberoid Standard Roofing. Grey or Red.

1-ply for small buildings that are not exposed to severe conditions.

2-ply for general roofing, especially for factories, warehouses and other commercial buildings.

3-ply for domestic use, large roofs and buildings exposed to great heat or to chemical fumes.

Ruberoid Slate-Surfaced Roofing.

This is recommended for use on flat or pitched roofs on which a coloured finish is required. Special fixing nails are necessary.

Ruberoid Super Roofing.

This is recommended for buildings on very exposed sites.

Ruberoid Astos Asbestos Roofing.

This is similar to Ruberoid Standard Roofing except that the base is of pure asbestos fibre which is fire-resisting and imperishable and will not buckle. It is supplied in one weight only, 52 lbs. per 100 sq. ft.

It is used and laid in a similar manner to 3-ply Standard Ruberoid (see description given below), principally for built-up roofs on large buildings, where two or more layers are specified.

Fixing :

The following notes and the illustrations on this Sheet refer to fixing single layer Ruberoid roofing. The methods of laying built-up roofs to specifications "C" and "D" are not detailed since they are always executed by the manufacturer.

Ruberoid Standard Roofing should be unrolled and weathered for 14 days before fixing (this is not necessary with Ruberoid Astos Roofing) and should be laid with the inside of the roll upwards. It should be bent and fitted before nailing. (In cold weather it may be warmed with a blowlamp along the underside of the line of bending). All nailheads and laps at seams should be coated with Ruberoid cement ; joints should be lapped 2 in. and nailheads must not be more than 2 in. apart. Nails should not be driven through a single thickness of Ruberoid, except at verges and eaves. On roofs of exposed or open buildings it is advisable to nail and cement a 1 in. strip of Ruberoid down the centre of each sheet.

All roof boarding should be ¾ in. T and G or 1 in. plain butt boarding, and all arrises should be rounded. The roof construction should be stiff and not springy.

The roof space itself should be well ventilated, as Ruberoid is air-tight.

Flat Roofs :

No drips, rolls or angle fillets are required. A fall of 2 in. in 10 ft. is sufficient if the seams run with the fall. Large flats and roofs used as terraces or for traffic should be roofed only with Built-up Ruberoid.

Pitched Roofs :

It is preferable to lay Ruberoid at right angles to the joints in the boarding. It should never be laid in a continuous length from eaves to eaves over the ridge.

Length, Lap and Laying :

In laying all types of Ruberoid roofings it is essential that the work should be planned before commencing to fix, to avoid unnecessary cutting, waste and a large number of joints. It is recommended that, as far as possible, no length laid should be greater than 15 feet. Lapped joints should be laid in the direction of the prevailing wind.

Ruberoid Gutters and Valleys :

These should be fitted first, two layers being used, bedded together with Ruberoid Mastic (cold) or Ruberoid Compound (hot).

Ruberoid Flashings :

Upstand of flashings should be turned into 2nd brick course above roof level. Brick joints should be raked out 1 in. deep, the Ruberoid apron dressed into them and pointed. Stepped aprons may be cut in 3 ft. strips, each strip having 3 steppings. Flashings should extend 3 in. over the roof surface and be cemented and nailed. Angles should be fitted by alternately overlapping and mitring the flashings at the angle.

Eaves and Verges :

The Ruberoid should be turned down and nailed to the edges of the boarding, and painted with Ruberoid cement to cover the nail heads.

Ridges and Hips :

Finished with an 8½ in. to 9 in. strip of Ruberoid, cemented and nailed.

Outlets and Cesspools :

Outlets and cesspools should have a zinc or lead lining, extending 6 in. around the outlet on the sole of the gutter as a flange, the boarding being rebated to receive it. The Ruberoid gutter lining should be bedded over the flange with Ruberoid mastic or Ruberoid compound and turned down into the outlet.

Previous Sheets :

Previous Sheets dealing with Ruberoid Roofing and waterproofing materials are Nos. 267, 304, 402, 404 and 407.

Issued by : The Ruberoid Company Limited.

Address : *Head Office :* Commonwealth House, 1–19, New Oxford Street, London, W.C.1.

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Belfast : 57 & 59 Great Patrick Street.
Telephone : Belfast 26808.

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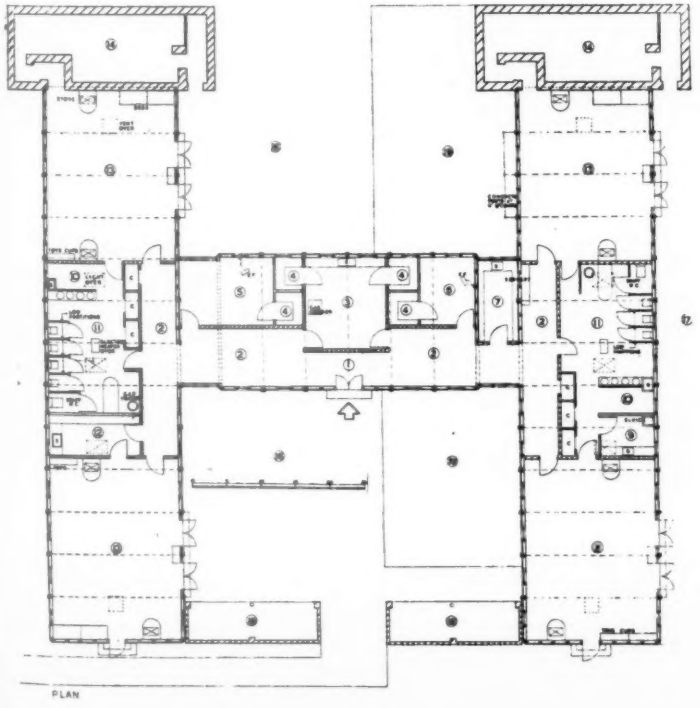
Telephone : Dublin 23107.

tion has been used for this scheme (see page 109). Finishes are: *Floors*: linoleum, stuck down round the edges, in toddlers' and babies' rooms, with wood skirting fillet; screed treated with sodium silicate finish in other rooms, with coved cement skirting. *Inside Walls*: glazed doors painted cream. Washable paint up to coloured dado line, distempered above; ceilings, distempered. Internal doors and cupboards stained and wax polished. *Pram Sheds*: asbestos-cement corrugated roofing on wood purlins, and moulded rustic fletton-brick piers. *Shelters*: normal r.b. construction with concrete floor and roof bunks for babies, seats for toddlers; electric connector-heaters. *Playground*: concrete playground, laid to falls with built-in brick-edged sandpit; concrete terraces and steps, with brick side walls to steps. *Key to Plan*: 1, Entrance Hall; 2, Matron; 3, Staff; 4, Kitchen; 5, Store; 6, Corridor; 7, Babies' Nursery; 8, Sluice Room; 9, Chambering Space; 10, Lavatory; 11, Nursery; 12, Fuel; 13, Perambulators; 14, Playground; 15, Sandpit; 16, Concrete Pavement; 17, Shelter; 18, Grass Bank.

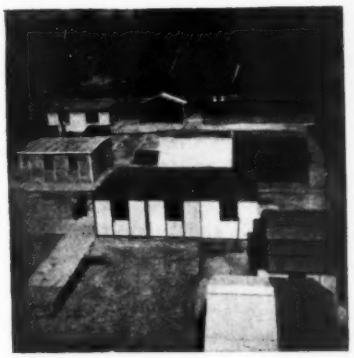
4. LETCHWORTH

This is another scheme for the Hertfordshire County Council; it was carried out under the direction of Mauger and May and L. C. Kent. The Maycrete system of construction was used. For constructional details of this scheme see page 109. *Key to Plan*: 1, Entrance Hall; 2, Coat Hall; 3, Kitchen; 4, Store; 5, Staff Room; 6, Matron; 7, Milk Room; 8, Babies' Nursery; 9, Sluice Room; 10, Chambering Room; 11, Lavatory; 12, Washing-up Room; 13, Toddlers' Nursery; 14, Shelter; 15, Sandpit; 16, Playground; 17, Paved Terrace; 18, Perambulators; 19, Soil.

Photograph on left shows the entrance hall.



PLAN



The Ministry of Works and Planning has arranged an exhibition of official prefabricated huts on a site behind the Tate Gallery, Millbank. Some of these huts have been used for the day nurseries on pp. 104-107

Prefabricated HUTS

This exhibition of prefabricated huts on the same site makes the visual comparison of the various systems very much easier than on paper. With two exceptions, all the huts are of the clear-span type, i.e. a clear-span varying between 17 ft. 9 in. and 19 ft. 3½ in., without intermediate supports for the roof. Regarding the materials in the skeletons of the various huts, the systems shown can be divided into four groups. 1. Timber. 2. Asbestos cement. 3. Combination of concrete and timber. 4. Concrete.

1. TIMBER. Considering the weight to be transported and the possibility of dismantling and use elsewhere, there can be little doubt that timber is the most suitable material for temporary huts. Owing to the scarcity of timber, however, only a small fraction of the present demand can be met by this material. The systems using timber as structural material are: (1) Seco; (2) Plywood (Cubicle); and (5) MOWP Hall Hut.

Seco. The posts and roof beams are of plywood construction arranged at 12 ft. 0 in. centres. Wood purlins spanning between the main beams carry wood wool

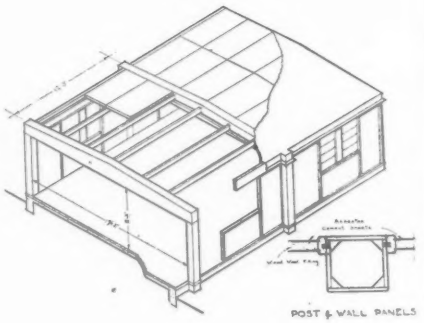
slabs and also act as longitudinal bracing. The weight of all these units is very low. The roof is covered with felt. The walls are made of double asbestos cement sheets packed with wood wool and fixed within timber frames. The whole hut is very pleasing in appearance, both from inside and outside. It can be erected easily and both the walls and the roof have a low thermal conductivity.

Plywood Hut. This is of the cubicle type. The whole structure consists of framed plywood panels. Such a structure could not be used in a "clear-span" type hut and, as far as labour is concerned, seems to be rather luxurious for wartime conditions.

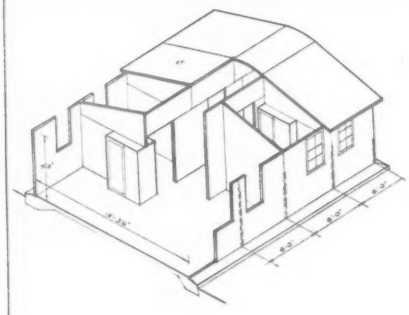
MOWP Hall Hut. Whereas the framework of a Seco Hut gives an impression similar to that of a welded steel structure with plate girders, the trusses of the MOWP Hut have the appearance of a lattice girder. The Seco Hut has a greater lateral stiffness and, owing to the use of purlins, is a much sounder structure in the longitudinal direction than the MOWP Hall Hut. There are no purlins in the latter, the wood framed roof panels spanning between the trusses. These wood framed panels, used both in the walls and in the roof, are covered on the outside with felted plaster board and on the inside with plaster board only. The joints are covered with felt, and the vertical strips at 6 ft. 2½ in. spacing on the outside create the impression of a patched-up building.

2. ASBESTOS CEMENT. This group is represented by *Curved Asbestos Hut* (6). Structurally it is the same as the well-known Nissen Hut, the curved corrugated steel sheets being replaced by curved corrugated (Fig. 6) asbestos cement sheets.

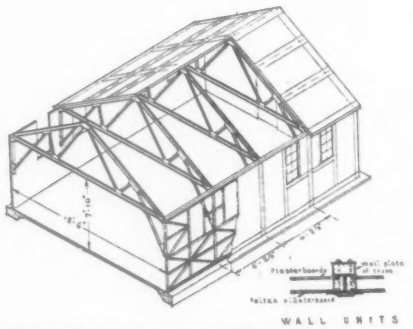
3. COMBINATION OF CONCRETE AND TIMBER. There are two huts in this group: (4) *Maycrete*, and (3) *Nashcrete*. Both huts are similar as far as the materials are concerned, but they differ in the structural arrangement of the walls. In both huts the roof trusses are similar to those in Hut (5), but they are supported on precast reinforced concrete posts and connected by purlins. In both huts the roof cover may be formed either by corrugated asbestos cement sheets or by fibrous plaster slabs covered with felt. The wall filling consists of moulded sawdust concrete panels, laid dry between the reinforced concrete posts. These sawdust concrete units may be lined with plaster boards or the like, on the inside.



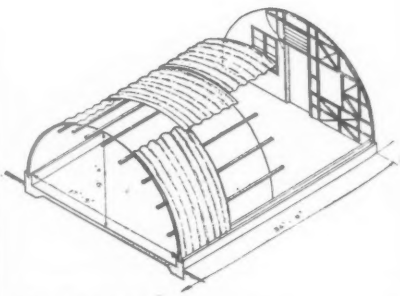
1 *SECO.—Framework: Posts and roof beams plywood construction. Roof: Wood wool slabs carried on wood purlins between plywood beams and covered with felt. Walls: Wood framed panels filled with wood wool between two sheets of asbestos cement.*



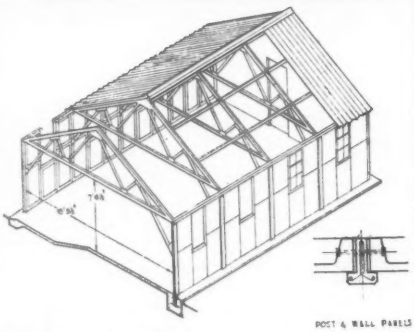
2 *PLYWOOD.—External wall and roof surfaces are constructed of resin bonded plywood cemented over a light timber framework. Internal surfaces are also of plywood. Plywood sheets and the timber framework are prefabricated in relatively large panels.*



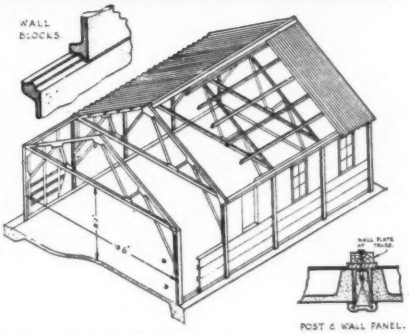
5 *MOWP HALL HUT.—Framework: None; roof supported on wood framed panels covered on outside with felted plasterboard and on inside with plasterboard only. Roof Truss: Framed timber truss with plywood gussets and knee braces bolted to side panels. Roof: Wood framed panels.*



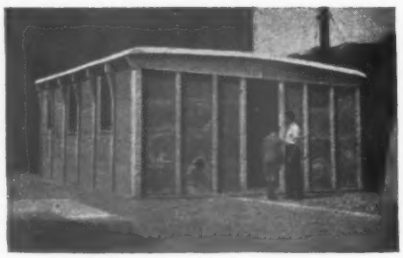
6 *CURVED ASBESTOS. — The arched roof is of curved corrugated (Big 6) asbestos cement sheets, the springing raised on a concrete trough to 9 in. above floor. The whole hut is lined with flexible asbestos cement sheet, flexible in the direction of the fibre.*

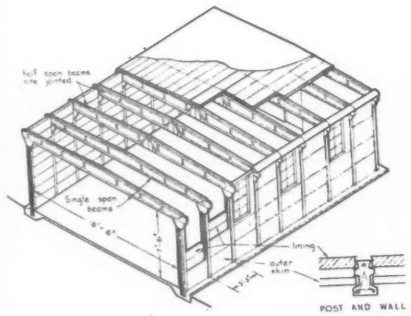


3 *NASHCRETE.—Framework : Reinforced concrete posts. Roof Trusses : Framed timber truss with plywood gussets and knee braces. Roof Coverings :* (1) *Corrugated asbestos cement sheets on wood purlins lined with flat asbestos cement sheets.* (2) *Fibrous plaster slabs covered with felt supported on purlins. Wall Filling : Nashcrete (sawdust concrete) moulded concrete panels between reinforced concrete posts bolted together. Inside lining optional.*

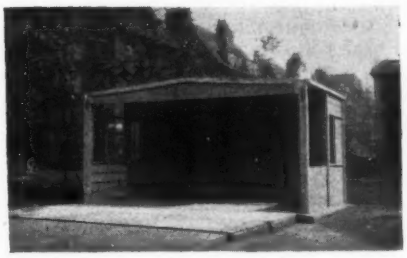


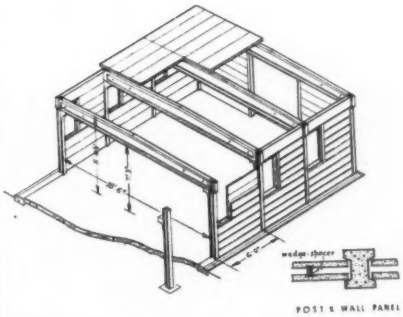
4 *MAYCRETE.—Framework : Reinforced concrete posts. Roof Trusses : Framed timber truss with plywood gussets and knee braces. Roof Covering :* (1) *Corrugated asbestos cement sheets on wood purlins lined with flat asbestos cement sheets.* (2) *Fibrous plaster slabs covered with felt supported on purlins. Wall Filling : Maycrete (sawdust concrete) moulded panels laid dry between reinforced concrete posts. Inside lining optional.*





7 *B.C.F.—Framework : Reinforced concrete posts with roof beams in :* (1) *single span ;* (2) *half span site jointed. Roof : 4 in. breeze slabs covered with felt. Walls : Pressed concrete slabs outside and 2 in. breeze blocks inside with cavity between.*





8 *ORLIT. — Framing : Reinforced concrete posts and roof beams. Roof : Reinforced concrete slabs spanning between roof beams covered with felt. Lining optional. Wall Filling : Pre-stressed concrete planks outside, and inside, with cavity between. No lining required.*

In the Maycrete Hut the wall units are spanned horizontally between posts at approximately 6-ft. centres, forming a longitudinal bracing. Timber plates bolted to the columns are used for keeping the wall units in position. This appears to be a complicated method requiring a large number of bolts and holes in the precast work.

In the Nashcrete Hut the longer side of the units is vertical and there is no direct connection between the wall posts except for the eaves course. The wall units are connected by bolts without a separate timber plate and a great number of bolts is required. Many of these bolts are embedded in the ground slab and any inaccuracy of setting out makes the erection of the wall units difficult.

Regarding the material of the wall units, the same objections are to be raised as in connection with the Tarran system (ARCHITECTS' JOURNAL, May 21, 1942, pp. 356 to 359) i.e. excessive moisture movements which make the use of reinforcement in these units impossible. Without reinforcement a considerable amount of breakage is to be expected during loading, unloading, stacking and erecting the units. The bolting of the units without allowance for movements may cause cracking of the walls.

The external appearance of the Maycrete Hut is marred by the boltheads exposed on the faces of the posts. Means should have been provided for sealing these boltheads against corrosion. No such bolts have been indicated on the drawing.

The appearance of the Nashcrete Hut is less favourable owing to the great number of uncovered joints.

(4) CONCRETE. B.C.F. Married Quarters Hostel ; B.C.F. Clear Span (7) ; B.C.F. Clear Span (Light) (9) ; and Orlit (8).

Regarding the B.C.F. "Married Quarters Hostel" and "Clear Span" types, see ARCHITECTS' JOURNAL for April 9, 1942, pp. 257 to 268. It is of interest to note that in the "Clear Span" type Hut two different arrangements of the main beams are shown, (*a*) half span beams site jointed, (*b*) single span beams. The difficulty of assembling the half span beams was discussed on page 266. The single span beam eliminates this difficulty, but it increases the maximum weight of a single unit to approximately 6 cwts. as against 261 lb. (page 262). Such beams are required at 3 ft. 3 in. centres. For reasons given on page 266 single span

beams are preferable, but it is apparently left to the discretion of the manufacturers which type of beam should be produced.

The slabs on the inner side of the walls and in the roof are made of breeze. Coke breeze is a combustible material of which appr. 10 tons are required in the roof and the external walls of a 60-ft. B.C.F. hut without partitions. It seems to be strange that at a time of fuel shortage such material is used in large quantities for building purposes.

The hut (9) with a pitched roof, is entirely different in its appearance and structurally more sound than the previous two types. Its main structure consists of 3-pin reinforced concrete portal frames at about 6 ft. 6 in. centres, connected with purlins. In the walls secondary posts are introduced, spanning between sole plate and eaves course. The roof is formed by asbestos cement or concrete slabs covered with felt. The walls are composed of an outer skin of pressed concrete slabs, bricks or blocks, as obtained locally, and an internal lining of plaster boards or wall boards.

The disadvantage of this system is the difficulty of transporting the frame units.

The merit of the Orlit Hut (8) against Hut (2) is the 6 ft. 0 in. spacing of the main beams as against 3 ft. 3 in. Pre-stressed reinforced concrete units are used as wall and roof slabs. Pre-stressing, if applied at the right place, allows a great saving in steel. It would appear, however, that 6 ft. long slabs, with the primary function of heat insulation and not of load transmission, are the least suitable units for this method which might have been far more useful if applied to the main beams of 18 ft. 6 in. clear span.

Conclusions.

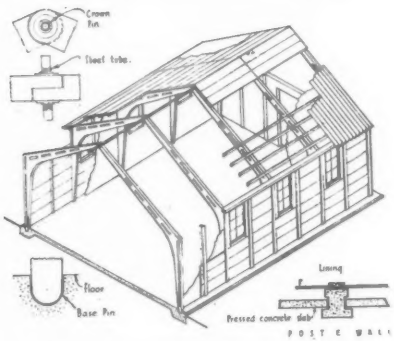
It is apparent that some fundamental principles of design have been disregarded in various types of huts.

The two main requirements are stability and habitability.

Stability can only be achieved by a framework, properly braced, such as Huts (1) and (9). Huts (2) and (5) are examples in the opposite direction, i.e. lack of bracing both longitudinally and across.

It does not appear economical to use 20 ft. long precast units at such close spacing as 3 ft. 3 in. centres, nor structurally sound to use such long members without bracing. Main beams at appr. 6 ft. with purlins are preferable and a spacing of appr. 12 ft. is even more favourable. There is only one example for this spacing of main beams: Hut (1).

Regarding habitability, the heat insulation of the roofs to most of the huts does not seem to be satisfactory. Except for the B.C.F. flat roofs and the Seco hut, none of the roofs appears to offer sufficient protection against heat loss, and the huts will be too cold in winter and too warm in summer. At a time when saving in fuel is of such vital importance, more attention should be paid to the question of thermal insulation, and an increase in building cost may be amply justified by the saving in fuel and improved conditions for the health of the inhabitants.



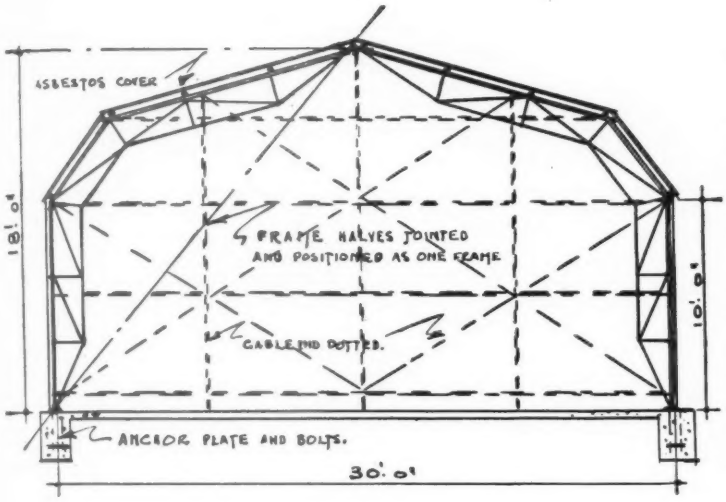
9 *B.C.F. (LIGHT).*—Framework: 3 pin portal frame, of reinforced concrete, carrying roof and walls. Roof: (a) Asbestos cement, or (b) Concrete slabs covered with felt, lined or unlined. Walls: Externally, pressed concrete blocks, or bricks, blocks, etc., as obtained locally. Internal lining, plaster board or wall board.*

*There has been a further development of this type. In the new design the frames are composed of four units instead of two in order to avoid the difficulty of transport.

Photograph showing the MOWP, type 1, hut during course of construction.

PATENT WELDED TUBULAR CONSTRUCTION

Data Sheet No. 6



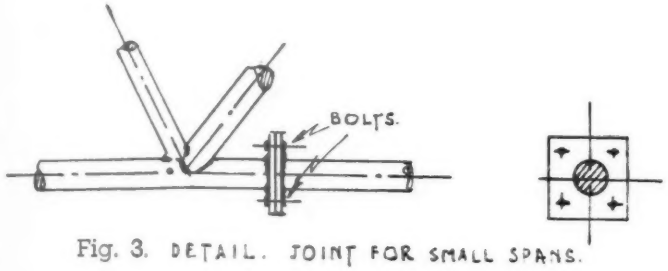


Fig. 3. DETAIL. JOINT FOR SMALL SPANS.

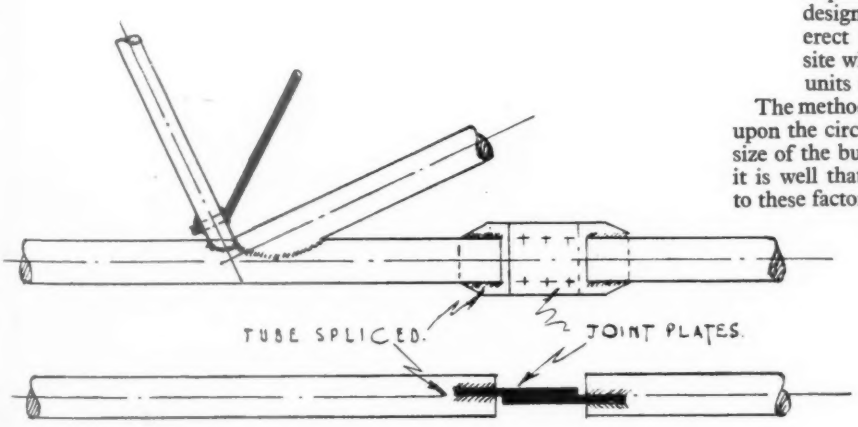


Fig. 4. Bolt connection for larger trusses.

METHODS OF FABRICATION

This form of construction lends itself admirably to the prefabrication of single storey buildings of any size. The standard sections (roof trusses, wall frames and columns, and door and window frames) are light in weight and conveniently transportable. Assembly on the site is simply and rapidly effected, the sections being bolted or welded together according to specification. The buildings can be dismantled with equal facility, and only the loss of foundations is involved since the various sections all remain available for re-erection—thus it may be said that this form of construction has all the essentials of a permanent building plus the facilities of a portable building. A further consideration is the flexibility of the system, allowing alterations or extensions to be made to existing buildings simply and quickly.

Three alternative methods of fabrication are available :—

(1) Complete factory prefabrication, leaving assembly only to be carried out on the site.

(2) Site welding. The welding of the final fixings and connections is sometimes more satisfactorily effected on the site ; where site welding is not practicable or economical special bolt joint or joint plates are supplied for such connections (see Figs. 3 and 4 reproduced from data sheet No. 3).

(3) Site fabrication and welding. In certain circumstances complete site fabrication is advantageous. Though more costly than factory prefabrication, in cases where transport costs are heavy and access to the site difficult, and where the fabricated sections required are large in number and simple in design, it sometimes proves economical to erect temporary portable workshops on the site where the fabricators and mobile welding units can execute the whole of their work.

The method to be adopted is in each case dependent upon the circumstances prevailing, and the type and size of the building, or buildings, to be erected, and it is well that proper consideration should be given to these factors before a decision is made.

NOTE.—These data sheets are appearing weekly in THE ARCHITECTS' JOURNAL *—they will be available shortly in complete Folder form and application for these Folders should be addressed to Scaffolding [Great Britain] Limited, 77, Easton Street, High Wycombe, Buckinghamshire*

SOCIETIES AND INSTITUTIONS

R.I.B.A.

Below is the list of dates of the forthcoming R.I.B.A. examinations :—

Intermediate Examination.—November 13, 14, 16, 17 and 19, 1942. (Last day for applications : October 1, 1942). May 21, 22, 24, 25 and 27, 1943. (Last day for applications : April 7, 1943). November 12, 13, 15, 16 and 18, 1943. (Last day for applications : October 1, 1943).

Final Examination.—December 9, 10, 11, 12, 14, 15 and 17, 1942. (Last day for applications : November 2, 1942). July 7, 8, 9, 10, 12, 13 and 15, 1943. (Last day for applications : June 1, 1943). December 8, 9, 10, 11, 13, 14 and 16, 1943. (Last day for applications : November 1, 1943).

Special Final Examination.—December 9, 10, 11, 12, 14, 15 and 16, 1942. (Last day for applications : November 2, 1942). July 7, 8, 9, 10, 12, 13 and 14, 1943. (Last day for applications : June 1, 1943). December 8, 9, 10, 11, 13, 14 and 15, 1943. (Last day for applications : November 1, 1943).

Examination for Building Surveyors.—May 5, 6 and 7, 1943. (Last day for applications : March 23, 1943).

R.W.E.A.

Following are the prize-winners of the Royal West of England Academy School of Architecture : First year—Bronze medal and book prize, J. B. Ackland ; Bertram Wills prize, C. R. Nurse. Second year—Silver medal and book prize, J. H. Rendle ; Bertram Wills prize, B. A. W. Savage. Third year—Architectural Association Design and Savory Design medal, R. A. Robertson ; Redwood construction prize, and Turner Theoretical construction prize, P. M. Todd ; Headmaster's prize for most marked progress, P. M. Jaquet ; Button Measured Drawing prize, divided between P. H. Barry and P. M. Jaquet ; Spencer Measured Drawing prize, divided between C. R. Nurse and B. A. W. Savage ; Dening Water Colour sketching prize, P. H. Barry. Certificates for satisfactory completion of the intermediate course were awarded to D. G. Pepperell, R. A. Robertson and P. M. Todd.

WELSH SCHOOL OF ARCHITECTURE

The following awards have been made as a result of the Sessional Examinations at the Welsh School of Architecture, the Technical College, Cardiff.

Professor L. B. Budden, M.A., F.R.I.B.A., and Professor R. A. Cordingley, M.A., F.R.I.B.A., were the external examiners. *Fifth Examination*: For the Diploma awarded at the end of the Five Years Full-Time Day Course exempting from the R.I.B.A. Final Examination and qualifying for Registration under the Architects' Registration Acts, 1931 to 1938 : Miss J. M. R. Bird, H. Gealy, Miss V. J. Roberts, K. Wainwright, A. Lougher, G. Lynham. *Fourth Examination* : P. G. Alport, M. D. Lewis, J. L. Russell, M. C. Williams. *Third Examination* : For the Certificate awarded at the end of the Three Years' Full-Time Course, exempting from the R.I.B.A. Intermediate Examinations : O. Davies (Certificate with Distinction), W. H. Davies (Certificate with Distinction), R. A. K. Richards (Certificate). *Second Examination* : L. Beaven, A. John, Miss J. E. Lewis. *First Examination* : C. E. Bell, H. G. James, J. M. Jenkins, F. S. Jennett, E. Morgan, I. D. Owen, G. K. Porter, D. O. Williams, L. A. Williams.

CHANGE OF ADDRESS

Messrs. Isteg Steel Products Ltd. have removed their offices to 19, Grosvenor Place, S.W.1.

BUILDING MATERIALS

Owing to the need to conserve lead supplies, the Ministry of Supply has intimated that it is essential to make every possible saving in the use of lead for all purposes. The Control (Non-Ferrous Metals), therefore, finds it necessary to impose drastic restrictions on the use of lead for building and plumbing purposes. Lead sheet and pipe will now only be released for special work for which it is considered by the Control to be essential ; all other uses, apart from that required for chemical purposes, must cease.

Where the use of lead pipes is indicated below, the weights of pipes for new and repair work are not to exceed those specified in the War Emergency Revision (No. CF (B) 9878, March, 1942), to British Standard Specification No. 602/1939).

New Work

Damp Proof Courses .. .. Sheet lead or lead-cored felt not to be used.
Alternatives : Slates, Blue Bricks, etc. (Tar Felt to temporary work or under walls of prefabricated huts, if required).

Water Service Pipes .. .. When it is not practicable to use an alternative material, lead may be used for underground service pipes in unmade ground provided the length of the pipe so used does not exceed 30 ft. nor its diam. 1½ in.

Hot and Cold Water Distributing Pipes Lead not to be used.
Alternatives : Steel or Iron uncoated tubes as follows :—
Lightweight welded steel tube with screwed and socketed joints, in accordance with the revised weights specified in the War Emergency British Standard Specification No. 789A/1940, e.g.—

Nom. Bore.	¼ in.	⅜ in.	1 in.	1¼ in.	1½ in.	2 in.
Lbs. per ft. (Plain end).	0.739	1.065	1.521	2.132	2.711	3.431

or light gauge welded steel tube of the weights stated below with cast brass compression type connectors. (Cast brass connectors to be made from scrap brass as may be permitted by the Non-Ferrous Metal Control.)

Nom. Bore.	½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
Lbs. per ft.	0.296	0.410	0.602	0.770	0.938	1.409

(War Emergency B.S. for light gauge welded steel tube in preparation).
Note :—Where waters are known to be corrosive, pipes should have anti-corrosive coating. In the case of large installations, chemical treatment of corrosive waters may be adopted in lieu of anti-corrosive treatment to pipes.

Traps .. .. Lead traps to bath, lavatory and sink wastes, only to be used where it is not practicable to use cast iron or cast brass. In ranges of basins, straight waste pipes without traps, discharging into open channels, should be used wherever possible. These waste pipes to be of light gauge welded steel, plastic tube, etc.

Soil, Waste and Vent Pipes .. Lead pipes not to be used.
Alternatives : Asbestos-cement * and cast iron pipes (thickness of metal 3/16 in.).
**Note* :—Cast iron to be used where pipe may be subject to damage (e.g., first length above ground level).

Flush Pipes .. .. Lead not to be used.
Alternative : Light gauge welded ungalvanized steel tube.

Rainwater Pipes, Fittings and Cutters Lead not to be used.
Alternatives : Asbestos-cement, cast iron. (Thickness of metal ⅛ in. or light steel with suitable protective coating (pitch, bitumen, etc.).

Valley Gutters .. .. .. Lead not to be used.
Alternatives : Asbestos-cement, tar felt, mastic asphalt, pressed steel, etc. Cast iron only to be used when other alternatives are not practicable.

Flashings and Soakers .. .. Lead not to be used.
Alternatives : Tar felt, slates, cement fillets, etc.
Note :—Consideration, at the design stage, should be given to avoid, where possible, the need for flashings.

Gas Distributing Pipes .. .. Lead not to be used.
Alternative : Light weight steel tube as War Emergency British Standard Specification No. 789A/1940.

Flushing Cisterns .. .. .. Lead-lined flushing cisterns not to be used.
Alternatives : Cast iron treated with bituminous paint, cast iron glass enamelled, sanitary ware (fireclay, vitreous china, etc.), moulded composition, porcelain enamelled pressed steel, etc.

Storage Cisterns .. .. .. Lead linings not to be used.
Alternatives : Steel * (ungalvanized above 12 g. and treated with suitable non-toxic compound), asbestos cement.
*As War Emergency B.S.S. 417/1940 grade " B."

Paints .. .. Lead paints to be restricted to uses as set out in the Memoranda on " Paints Economy " already issued by Directorate of Standardisation. War Emergency British Standard Specifications in preparation for substitute paints.

Maintenance and Repairs

Where possible, repairs should be made with alternative materials to lead, even as a temporary measure, until such times when lead may become available.

Flat Roofs .. .. Lead not to be used.
Alternatives : Tar felt (B.S. 989/1941), mastic asphalt. (B.S. 988/1941), etc.

Maintenance and Repairs—*continued.*

Valley Gutters	Lead not to be used. Alternatives: Tar felt (B.S. 989/1941), mastic asphalt. (B.S. 988/1941), etc.
Flashings	Do.
Water Supply and Distributing Pipes	Lead only to be used for essential small (not exceeding 10 feet run) repairs to existing lead pipe installations and only where an alternative material is not practicable.
Gas Supply and Distributing Pipes ..	Lead not to be used. Alternative: Light weight welded steel tube as War Emergency B.S. 789A/1941.

The Committee on Building Materials Standardisation has issued a notice on bitumen and tar economy in use and consumption: Schedule of alternative materials and uses. The Committee points out that the greatest economy in the consumption of bitumen and tar is necessary and until further notice the use of bitumen is forbidden for any purpose where an alternative is available. Bituminous felts, paints, road surfaces, dampcourses, etc., are all affected by this instruction and the use of tar for roads is also to be confined to absolute essential requirements.

SCARCE MATERIALS	ALTERNATIVE MATERIAL AND USE	SUGGESTED SCHEDULE FOR USE AND NOTES
Mastic-Asphalte.	**Roofs.**	
	(*a*) Built up tar felts.	Save in exceptional cases, to flat roofs generally.
	(*b*) ½ in. one coat mastic asphalte.	(*a*) to B.S.S. 989/1941, where no foot traffic and (*b*) to B.S.S. 988/1941 where foot traffic.
	Damp-proofing of Basements.	
	(*a*) Cement rendering.	Boiler rooms in temporary building where no head of water.
	(*b*) Tar and pitch membrane.	
	Tanking of Basements.	
	Two layers of tar felt.	General adoption. Specification dependent on type of felt used.
	Static Water Tanks, etc.	
	One layer of tar felt.	Do.
	D.P.Cs. in Floors.	
	(*a*) Tar and pitch membrane.	In temporary work.
	(*b*) One layer of tar felt.	In the more permanent work.
		Specification dependent on type of felt used.
	Acid-resisting Flooring.	
	Acid-resisting vitreous tiles in acid-resisting cement.	General adoption except where heavy wheeled traffic might break up tiles.
Tarmacadam.	**Roads.**	
	(*a*) Water bound macadam.	(*a*) and (*b*) to be adopted where practicable with a view to avoiding use of tar. Choice of specification (thickness, etc.) dependent on nature of subsoil and traffic.
	(*b*) Concrete uncarpeted.	
	(*c*) Water bound macadam with tar surface dressing.	
	(*d*) Concrete tarred for camouflage.	
	(*e*) Waterbound macadam with ¾ in. tar carpet.	
		See:— **Carriageway Designs for Service Roads.** Obtainable from:—The Director, Road Research Laboratory, Harmondsworth, West Drayton, Middlesex. **Wartime Road Note No. 1.** Recommendations for Tar Carpets and surface Dressings. (H.M.S.O. 6d.).
	Paths.	
	(*a*) Clinker.	(*a*) (*b*) and (*c*) to be adopted where practicable with a view to avoiding the use of tar. Choice of specification (thickness, etc.) dependent on nature of soil and traffic.
	(*b*) Gravel.	
	(*c*) Concrete.	
	(*d*) Gravel blinded with tar.	
	(*e*) ¾ in. tar macadam on well rolled ashes (ashes in place of tar macadam for bottoming).	
Bituminous Felt.	**Roof Coverings.**	
	Tar felt.	To B.S.S. 989/1941. Built-up roofs are limited to two-layer work, and save in exceptional cases tar felts to be used to flat roofs generally.
	D.P.Cs. in Walls.	
	(*a*) Slates in cement.	General adoption.
	(*b*) Impervious brick in cement.	Where (*a*) is impracticable.
	(*c*) Tar felt.	Under walls of prefabricated huts, if required.
Cold Bitumen Emulsion.	**Damp-proofing Wall Surfaces.**	
	Flux coal-tar pitch.	General adoption.
	Coating Static Water Tanks.	
	(*a*) Fluxed coal-tar pitch.	
	(*b*) Hot bitumen.	According to importance of tank.
	Blinding Concrete Roofs.	
	Fluxed coal-tar pitch.	
	Fixing Wood Block Flooring.	
	Fluxed coal-tar pitch.	

NEW BUILDING PROGRAMME

Mr. Bevin, Minister of Labour and National Service, met representatives of the building and civil engineering industries in a private conference in the Central Hall, Westminster. This is what he said about the new building programme:—

Britain is going to do its greatest job in this war—as the base for troops from the other side as well as for the armies and air-forces already here. The building industry will be in the vanguard in this great job. We shall have to house the great armies and air-force from America. Port facilities, aerodromes, runways, camps and all the rest have got to be provided and provided quickly. 28,000 building workers who were due to be called up are to be left in the industry until October provided they are on priority work. In October the question will be reviewed again.

Any inconvenience that anyone suffers is worth while if it takes one day off the war. The building labour of the country is to be put entirely at the service of the new programme. Only the priority of the job will count.

The work will be spread over as many employers as is possible; no employer will be overloaded with jobs. Employers who cannot be used must be ready to lend their foremen and supervisory staff. Some of these employers may themselves be wanted as supervisors. Much public and municipal work will have to stop so that men can be released for the urgent jobs. The work so delayed will have to be picked up again as soon as possible after the special job is done. Where employers arrange for a number of men to be transferred the Ministry of Labour will try to transfer them as a team, and do its best to return them afterwards to take up the work they left.

A special committee has been established to see to feeding arrangements, and the Army and Air Force will help. In difficult cases where men have to be completely fed and billeted and the maintenance payment does not seem the best way of meeting the case, other arrangements will be considered, with the representatives of the industry advising the Government.

The Government Departments and the Services have been told that they, too, must play their part with the employers, managements and men in getting this job done.

The following resolution, proposed by Mr. Holloway, President of the Federation of Civil Engineering Contractors, and seconded by Mr. Luke Fawcett, Secretary of the Amalgamated Union of Building Trade Workers, was carried with acclamation. "The representatives of the operatives and employers in the building and civil engineering industries here assembled thank Mr. Ernest Bevin, the Minister of Labour and National Service, for his address, and desire to assure the Minister and the Government of their fullest co-operation in carrying out the important programme of works required by the Government."

TRADE NOTE

The election of Mr. P. S. Turner (Director of Associated Electrical Industries and of Metropolitan Vickers Electrical Co., Ltd.) to the Board of The Edison Swan Electric Co., Ltd., and Edison Swan Cables Ltd., is announced from Ediswan Head Office, 155, Charing Cross Road. At the same time, two other new directorates of Edison Swan Cables Ltd., were made effective in the election of Mr. R. J. Morris, Sales Manager, and Mr. F. Gale, Works Manager.

WASTE PAPER

The £10,000 Waste Paper Contest organized by the Waste Paper Recovery Association closed on July 31. The Contest was divided into three separate competitions, inter-borough, inter-urban and inter-rural. All local councils in England, Wales and Northern Ireland were eligible. There was a separate contest for Scotland. The results are shortly to be announced.

PRICES

BY DAVIS AND BELFIELD, CHARTERED QUANTITY SURVEYORS

Rates of Wages have not altered during July but the prices of certain of the basic materials given in our list have risen. Fletton bricks have risen from 54s. 9d. to 59s. 9d. per thousand (including 3s. 0d. levy), the percentage on the list price for stoneware drains has risen from 2½% to 10%, and roofing tiles have gone up by a further 12½%. There has also been a small rise in the price of white lead paint.

BASIC MATERIALS	Increase over pre-war prices at end of						
	January, 1942	February, 1942	March, 1942	April, 1942	May, 1942	June, 1942	July, 1942
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
Portland cement	+37·8	+37·8	+37·8	+37·8	+37·8	+37·8	+37·8
2-in. Unscreened ballast	+71·01	+71·01	+71·01	+71·01	+71·01	+71·01	+71·01
Fletton bricks (at station)	+11·89	+11·89	+11·89	+11·89	+18·38	+18·38	+29·19
Stoneware drainpipes (British Standard) 2 tons and over	+28·13	+28·13	+28·13	+28·13	+28·13	+28·13	+37½
Roofing tiles	+30	+30	+30	+30	+30	+30	+42½
Steel joists (basic sections) ex mills	+47·5	+47·5	+47·5	+47·5	+47·5	+47·5	+47·5
Lime greystone	+35·29	+35·29	+35·29	+35·29	+35·29	+35·29	+35·29
Sheet lead	+54·35	+54·35	+54·35	+54·35	+54·35	+65·22	+65·22
Iron rainwater goods and soil pipes	+26½	+26½	+26½	+26½	+26½	+26½	+26½
Copper tubes	+29·79	+29·79	+29·79	+29·79	+29·79	+29·79	+29·79
White lead paint	+31·82	+31·82	+36·36	+36·36	+36·36	+36·36	+38·64
RATES OF WAGES (Central London Area)							
Labourers	+19·05	+22·22	+22·22	+22·22	+22·22	+22·22	+22·22
Craftsmen	+14·29	+16·67	+16·67	+16·67	+16·67	+16·67	+16·67

LABOUR—Rates of Wages since 1st February, 1942.

LONDON DISTRICT	Craftsmen	Labourers	N.B.—Painters
Within 12 miles radius	2s. 0½d.	1s. 7½d.	½d. less than
From 12-15 „ „	2s. 0d.	1s. 7d.	other craftsmen

GRADE CLASSIFICATIONS

	A	A¹	A²	A³	B	B¹	B²	B³	C
Craftsmen	1/11	1/10½	1/10	1/9½	1/9	1/8½	1/8	1/7½	1/7
Labourers	1/6¼	1/5¾	1/5½	1/5	1/4¾	1/4¼	1/4	1/3½	1/3¼

Davis

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CLASSIFIED ADVERTISEMENTS

Advertisements should be addressed to the Advt. Manager, "The Architects' Journal," 45 The Avenue, Cheam, Surrey, and should reach there by first post on Monday morning for inclusion in the following week's paper.

Replies to Box Numbers should be addressed care of "The Architects' Journal," 45 The Avenue, Cheam, Surrey.

Public and Official Announcements

Six lines or under, 8s.; each additional line, 1s.

The Incorporated Association of Architects and Surveyors maintains a register of qualified architects and surveyors (including assistants) requiring posts, and invites applications from public authorities and private practitioners having staff vacancies. Address: **75 Eaton Place, London, S.W.1. Tel.: Sloane 5615** 991

CORNWALL COUNTY COUNCIL.

AIR RAID SALVAGE.

Applications are invited for the appointment of a TECHNICAL ASSISTANT on the Staff of the County Architect to assist with the co-ordination of air raid salvage work in the County. Salary according to qualifications and experience. Applications stating salary required accompanied by copies of two recent testimonials should reach the County Architect, County Hall, Truro, by Saturday, the 22nd August.

Until the end of the war, all new appointments will be temporary. Candidates should be ineligible for military service.

L. P. NEW,
Clerk of the County Council.

County Hall, Truro.
30th July, 1942. 800

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B.A. (Arch.), A.R.I.B.A., A.M.T.P.I., requires responsible position. Varied experience of all types of work over last 6 years, including full supervision. A.R.P. and War Damage. Replies to Architect, 194, All Souls Avenue, London, N.W.10. 469

A.R.I.B.A. requires part-time work, many years experience all types of work, including war damage. Box 472.

WOMAN (30), good draughtsman, 2½ years' architectural training, desires work with Architect or Planning Committee. Experienced Architect's Assistant, some typing. Exempt from calling-up. Box 474.

EXPERIENCED SURVEYOR offers part-time services in connection with war damage repairs, bills of quantities, estimates, specifications, etc. North-west London area. Box No. 477.

ARCHITECTURAL ASSISTANT (24), invalided from army after active service, desires post in the London area; not liable to further call-up. Will have completed full-day course at the Polytechnic School of Architecture, W.1, and taken Part II R.I.B.A. finals by the end of July. Will be free in August. Public School and University education. Drive car. Some office experience during vacations. Salary by agreement. Patrick B. Sweetnam, 166, Roxeth Green Avenue, Harrow-on-the-Hill, Middlesex. 481

QUANTITY SURVEYING—drawing office (architectural). Youth 16½, Technical School training, seeks opening, London. Box 482.

YOUNG MAN, exempt military service, studying for R.I.B.A. Final, seeks constructive post of national importance. P. H. F. Stiles, East Lodge, Vigo, South Holmwood, Surrey. 479

DRAUGHTSMAN (Architectural), requires change, aged 17, 2½ years' experience in preparing working drawings of small structures under supervision, constructional details, tracing and building surveys. Write A.H., 61, Openview, Earlsfield, S.W.18. 483

ARCHITECTURAL STUDENT, at present engaged as Engineering Draughtsman, requires part-time Architectural Drawing work. D. Wheeler, 28, Endymion Road, Hatfield, Herts. 484

ARCHITECT, Alien, Swiss and Hungarian University Degree, 10-years' practice, good draughtsman, experienced designer, desires full or part-time work with firm or at home. Box No. 489

ARCHITECTURAL ASSISTANT, just completed 5 years' course at Regent Street Polytechnic School of Architecture and qualified for election as A.R.I.B.A., seeks employment. London or Kent preferred. Write, J. T. Dannatt, Church Road, Halstead, Nr. Sevenoaks, Kent. 490

REGISTERED ARCHITECT, available shortly, requires whole or part-time post. Experienced in supervising work on site. Designing and drafting, building maintenance and surveys (W. D. claims), variations builders accounts. Salary £450—£500 per annum. Box 491.

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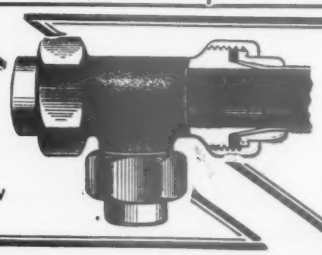

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