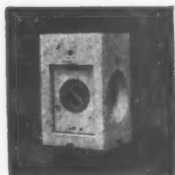




## 7 DAYS' (168 HOURS) LIGHT WITHOUT ATTENTION

THOUSANDS OF POUNDS PER YEAR CAN BE SAVED ON MAINTENANCE ALONE WHERE IT IS NECESSARY TO USE A LARGE NUMBER OF LANTERNS



**MODEL "A"**  
For building in the wall angles of Domestic Communal Surface Air Raid Shelters.



**MODEL "B"**  
For Street Islands, Pedestrian Crossings, Road Obstructions, etc.

**MODEL "C"**  
FOR INTERIOR ILLUMINATION



Model "C" has been specially designed for interior illumination of Air Raid Shelters, and provides the most practical and economical method of lighting for that purpose.



**MODEL "D"**  
For Military Road Blocks. With longitudinal ruby windows 1" wide, as required by the Ministry of Transport.



**MODEL "E"**  
For connection to Main Electric Supply. Immediately convertible to oil in case of emergency.

**WRITE NOW** for a copy of the folder illustrating and describing in detail the different types of lanterns available.

*You would find a sample Lantern a most interesting and convincing test. May we send you one?*

A. BELL & CO., LTD. (Dept. A), Gold Street, NORTHAMPTON  
GLASGOW: 98 Bath Street, C.2 Telephone: 771 (2 lines)

# "BELL"

## 7-DAY LANTERN

(Prov. Pats. Nos. 2957, 10133 and 10512)

APPROVED BY THE MINISTRY OF HOME SECURITY



The smooth, hard face of Gyproc Board is good to feel. During the war, its ivory finish (a decorative factor in itself) has been replaced by grey, which, nevertheless, makes a perfect base for the decorator. Supplies are limited now, because it is doing a big job of war work—but Gyproc is essentially a product for permanence and peace. The following facts give an idea of its possibilities:

Gyproc is the lightest and strongest gypsum board in the world. The scientific combination of the serrated gypsum plaster core and tough mill-board surfaces provides amazing strength and elasticity without brittleness. It resists fire, and will neither expand nor contract with change of temperature or atmosphere.

The surface is grey and specially prepared to provide a base for plaster or decoration. Gyproc is the only wall board with edges cut square and true, ensuring neat exact joints. Speedily put up, Gyproc can be used for walls, partitions or ceilings in almost every kind of building. It is packed in pairs in these thicknesses— $\frac{1}{2}$ "  $\frac{3}{8}$ "  $\frac{1}{2}$ ".

# GYPROC WALL & CEILING BOARD

BUNDLED IN TWOS

GYPROC PRODUCTS LIMITED, GREAT BURGH, EPSOM, SURREY.

Telephone: Burgh Heath 3470-6. Head Office: 21 St. James's Square, London, S.W.1. Telephone: Whitehall 8021. Glasgow Office: Gyproc Wharf, Shieldhall, Glasgow, S.W.1. Telephone: Govan 614-5.

Members of the Gypsum Building Products Association.

# THE ARCHITECTS'



## JOURNAL

THE ARCHITECTS' JOURNAL WITH WHICH IS INCORPORATED THE BUILDERS' JOURNAL AND THE ARCHITECTURAL ENGINEER IS PUBLISHED EVERY THURSDAY BY THE ARCHITECTURAL PRESS (PUBLISHERS OF THE ARCHITECTS' JOURNAL, THE ARCHITECTURAL REVIEW, SPECIFICATION, AND WHO'S WHO IN ARCHITECTURE) FROM 45 THE AVENUE, CHEAM, SURREY

THURSDAY, JUNE 12, 1941.

NUMBER 2420 : VOLUME 93

### PRINCIPAL CONTENTS

Marylebone Town Hall Extensions .. .. .	379
Damage to the Albert Hall .. .. .	380
This Week's Leading Article .. .. .	381
Notes and Topics .. .. .	382
<i>Astragal's notes on current events</i>	
News .. .. .	384
Letters .. .. .	385
Flashback. Hodder and Stout Party. By Hugh Casson	385
Information Sheets .. .. .	<i>facing page 386</i>
<i>Ceilings (829)</i>	
<i>Structural Steelwork (830)</i>	
A New Constructional Method. By J. H. de W. Waller	387
House at Great Sutton, Cheshire. Designed by Richard H. Kelly .. .. .	391
Information Centre .. .. .	393
Trade Notes .. .. .	xvii
The Buildings Illustrated .. .. .	xviii

THE ANNUAL SUBSCRIPTION RATES ARE AS FOLLOWS :  
BY POST IN THE UNITED KINGDOM..... £1 3 10  
BY POST TO CANADA..... £1 3 10  
BY POST ELSEWHERE ABROAD..... £1 8 6  
SPECIAL COMBINED RATE FOR SUBSCRIBERS TAKING BOTH THE ARCHITECTURAL REVIEW AND THE ARCHITECTS' JOURNAL : INLAND £2 6s. ; ABROAD £2 10s.

SUBSCRIPTIONS MAY BE BOOKED AT ALL NEWSAGENTS

SINGLE COPIES, SIXPENCE ; POST FREE, EIGHTPENCE.  
SPECIAL NUMBERS ARE INCLUDED IN SUBSCRIPTION ;  
SINGLE COPIES, ONE SHILLING ; POST FREE, 1s. 3d.  
BACK NUMBERS MORE THAN TWELVE MONTHS OLD (WHEN AVAILABLE), DOUBLE PRICE.

SUBSCRIBERS CAN HAVE THEIR VOLUMES BOUND COMPLETE WITH INDEX, IN CLOTH CASES, AT A COST OF 10s. EACH. CARRIAGE 1s. EXTRA

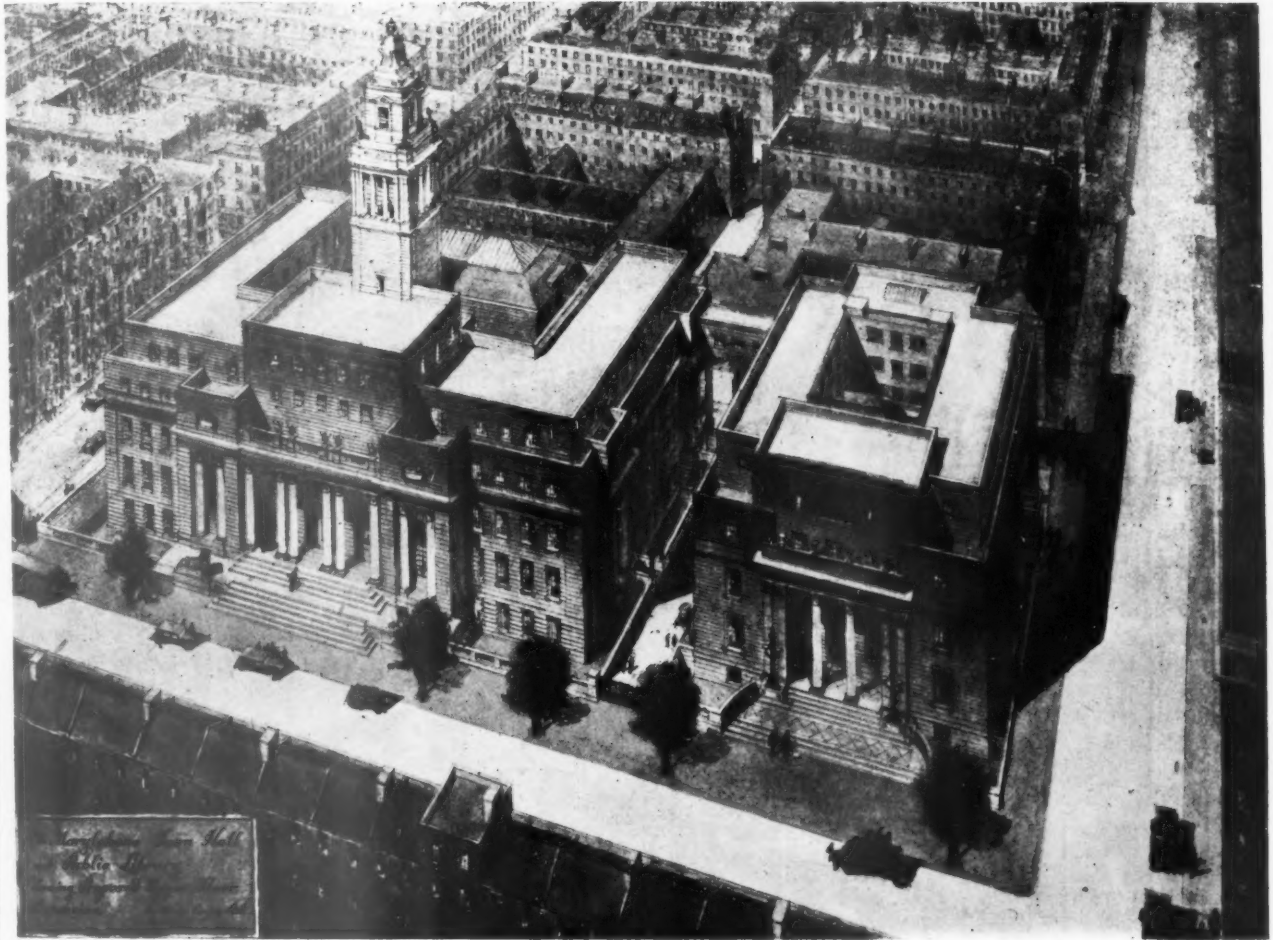
45 The Avenue, Cheam, Surrey  
TELEPHONE : VIGILANT 0087-9 (3 LINES)

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.

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.

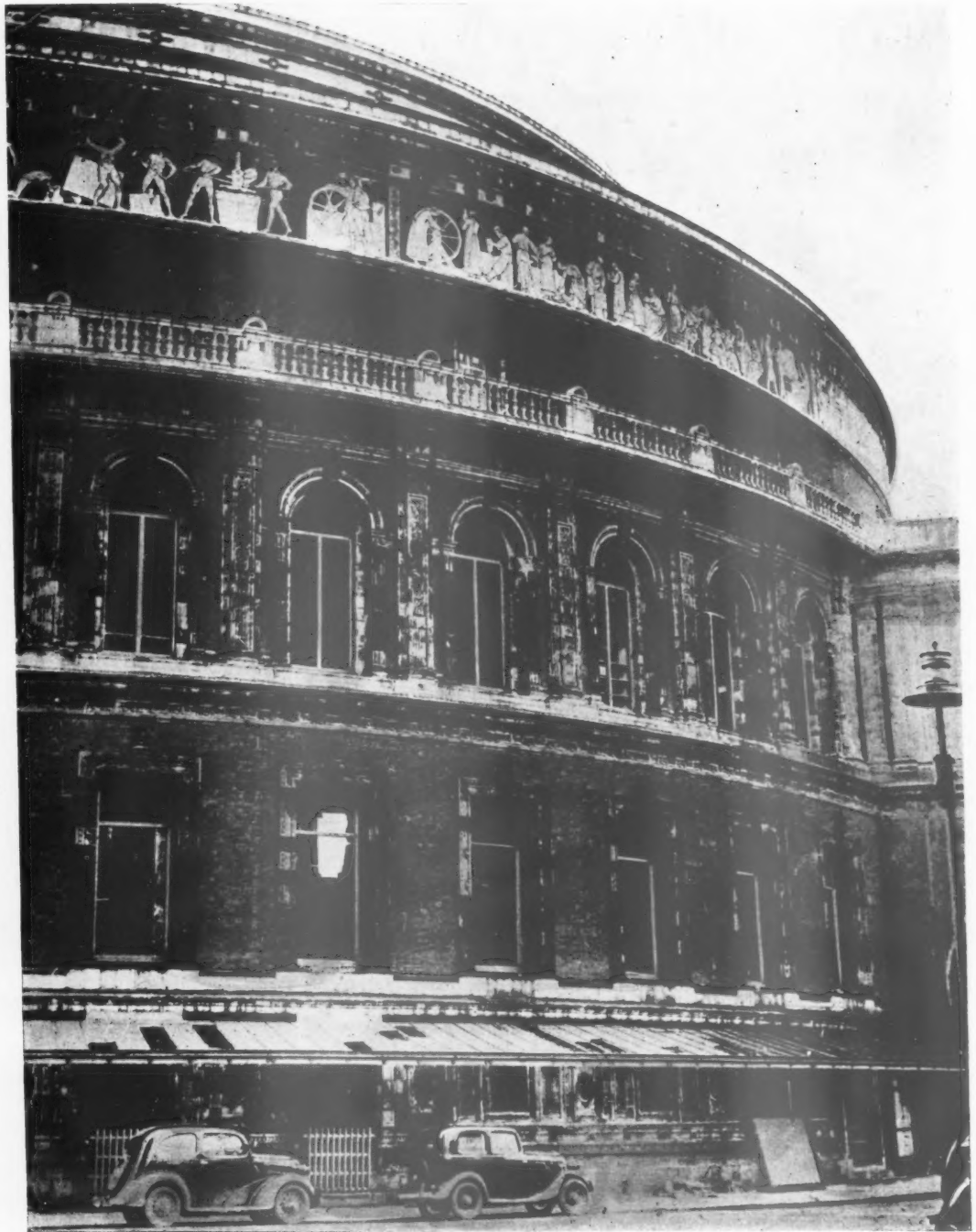
To obtain your copy of the JOURNAL you must therefore either place a definite order with your newsagent or send a subscription order to the Publishers.

# ST. MARYLEBONE TOWN HALL EXTENSION



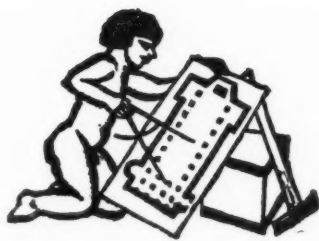
*St. Marylebone Town Hall and Public Library: proposed upper floor extension. By Sir Edwin Cooper, R.A. (From the Royal Academy Exhibition).*

93  
379  
380  
381  
382  
384  
385  
385  
386  
387  
391  
393  
vii  
viii



## DAMAGE TO THE ALBERT HALL

*The Royal Albert Hall suffered minor damage during a recent raid on London. The idea of the Hall was first suggested by the Prince Consort and, after his death, it was built in 1868-1871, to commemorate his services to art and science. The Albert Hall is one of Britain's rare essays in "largest ever" buildings: the auditorium is elliptical in plan, measuring 200 ft. by 160 ft. and crowned with a saucer dome 140 ft. above floor level, and can hold about 7,000 people. The original designs were prepared by Captain Fowke and, after his death, the Hall was completed by Major-Gen. H. D. Y. Scott. Both gentlemen belonged to the Royal Engineers.*



## EXHIBITIONS

**L**AST week we considered the *Living in Cities* Exhibition, and emphasized the need for constructive propaganda.

How can architects at the present moment help to put this propaganda in hand? It is not enough for them to sit back and say how great the need is; they must now be prepared to do all they can to organize and carry out the propaganda themselves.

Never has there been a greater need for architects to present a united front and to put forward a constructive policy. No one who is prepared to face the truth can fail to be aware of the lack of confidence and respect that is felt by the public for the architect to-day. He is usually envisaged as a rather weak but charming person, little in touch with the practical needs of the people, not quite an artist, not quite a technician—"A gentleman, not mild enough to have entered the Church, not fierce enough to have joined the Army." Yet the true architect should be one of the greatest forces in society, and now or never the profession must rise and show itself capable of being just that.

It is natural that one should turn to the R.I.B.A. as the central body for the organization by architects of propaganda for reconstruction. Their Reconstruction Committee has set up a "Publicity Subcommittee" whose terms of reference are: "Generally to further public interest in the work of the architectural profession and in particular to spread the views of the R.I.B.A. on reconstruction." Tut-tut for the first half! The R.I.B.A. should aim at interesting everyone, both in the problems of reconstruction and their solution, but to be successful it must present a constructive policy. It should organize travelling exhibitions, articles in the press, talks on the wireless, and give all help to film producers on the subject.

It is fortunately still possible to get the materials necessary for exhibitions, the main difficulty being the restriction of supply of sensitised paper. Every photographic firm is apparently limited to 25 per cent. of its normal peace-time requirements; there is little doubt, however, that the paper would be released if the R.I.B.A., backed by a sound policy, approached the Government and urged the necessity.

The showing of the exhibitions throughout the country could be easily arranged through the local art galleries and schools. The demand for *Living in Cities*, now being circulated by the Council for the Encouragement of Music and the Arts, has been tremendous, and we understand that it has

proved impossible to let even a small percentage of the claimants have the exhibition as soon as they want it. It will be a tragedy if the R.I.B.A. fails to supply further exhibitions to satisfy this need, which is apparent not only in the provinces and in London, but in the Army itself.

We admit that there are transport difficulties at the present time, but with foresight these can be overcome. If the exhibits are mounted on light flexible screens, quite a large exhibition can be made into a single package and easily carried by two men.

The eternal difficulty (not only in exhibitions) is lack of money. The R.I.B.A. with its heavy commitments unfortunately cannot afford large sums on exhibitions, although any money it may have to spare at the moment could hardly be better spent than on these. Perhaps some of the money saved by the cessation of committee meetings might be used! However, if the R.I.B.A. could produce a programme of propaganda for reconstruction, and could show the value it would have on the morale of the people, they might approach the M.O.I. and perhaps get a small grant from them.

Architects in each district could also organize propaganda and arrange exhibitions, showing the special problems of their district and suggesting how the solution can be applied to the towns the people know.

The cinema could be used to supplement any other work being done. Mr. Paul Rotha has recently shown privately an American film entitled "The City," which has a commentary by Lewis Mumford. This was produced under the guidance of the American Institute of Planners, New York City. It is intended to have many copies available in England shortly through the M.O.I. This film shows many town-planning problems clearly. But excellent though it is, we feel that it should be followed by a similar British film. The more familiar the sights and sounds are in such a film, the more it will bring the need home to the people—a traffic jam of Austins and Morris's on the Portsmouth Road means more to the Englishman (though not just now perhaps) than the congestion of roadsters with their gum-chewing and weary occupants on a dried-up U.S.A. highway; and the slums of Liverpool than the slums of Detroit. Mr. Rotha has formed a special film unit, and hopes to carry out a similar British film, and we wish him every success. The 1940 Council has also set up a Films Advisory Committee with the purpose of co-ordinating the production of all films on reconstruction.



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

## NOTES & TOPICS

### R.I.B.A. RECONSTRUCTION

THE R.I.B.A. Reconstruction Committee after a rather long period of gestation is born and turns out to be a powerful infant. Youth, age and the Allied Societies are all well represented, and the programme of work comprises as much and no more than architects can tackle with a proper sense of responsibility.

★

Among the various committees is one to handle publicity, the R.I.B.A. realizing how great a part the public is going to play in fostering the body of good-will without which reconstruction will fail in its ultimate purposes. Nor is the Committee to work without help for I am told that the Allied Societies are to set up groups within the areas of the Civil Defence regions, and that, in fact, several of these groups are already in being.

★

I would like to suggest to the Committee that it should not overlook the help which students can bring to the solution of the various problems involved. Students are still a numerous body, and I know from attendance at their conferences at Hull, and again at Cambridge, that they are eager to be given a share in this preparatory work, however humble that share—which is only fair when one reflects that they will have enough to do with it in time to come. Possibly this is a liaison which the Allied Societies could undertake, or failing that, it could be made through the Schools.

★

Again, it is to be hoped that the R.I.B.A. will not be chary of seeking the co-operation of both contractors and manufacturers. Just as this is a war of supply, so reconstruction will be a great deal more than the concern of architects: and if architects seek to control, as they should, the character of post-war planning and building, they must do so as partners of the industries of supply. We have still the deuce of a lot to learn and the size of the job ahead hardly bears contemplating. B.I.N.C. is an old-standing

partner in any case, but whether in its present constitution it could fairly be said to represent the whole industry of construction and reconstruction is another matter. But there it is and, in my opinion, it would be better to make it representative than to set about building up another and a rival organization.

★

The architectural profession awaits the Committee's first report with quite undisguised impatience.

### MORE HOME HYDRAULICS

An architect who read my note about hand-pumped water supply in one of my war-time homes has told me of hydraulic complications in *his* war-time home which should appeal to those who like the bizarre.

★

The architect's wife preceded him to a small house in the country which two families were going to share; and on the architect's arrival he was asked by both wives to see if the water was all right for the children. While a sample was being tested the architect looked into the hydraulic set-up of the demesne and discovered the following facts:

★

75 feet from the house and 5 feet below it is a small river, heavily protected by those responsible for London's water. Half-way towards this river is the septic tank—somewhat amateurish and lacking, so far as can be found, any outfall pipe. Bath and lavatory basin wastes appear to run to a soakaway, which is also located somewhere towards the river. Finally, in a shed also on the river side of the house, is the small petrol pump (Ah—what a joy!) which raises all water for household purposes from a reputed spring or stream about 10 feet underground. It does this at a point roughly equidistant from an unpalatable-looking river, a dubious and presumably costly septic tank and a hypothetical bath-water soakaway. No plans are available of the drainage or water supply lay-out.

★

The architect told me that he lies awake at night wondering what is really going on under that land by the river.

"But what," I asked "did the analyst say about the water?"

"That's the funny part," he replied darkly. "He said it was very good indeed."

### MAYOR LA GUARDIA AND THE OTHERS

The announcement that Mayor La Guardia of New York has been made chief of U.S. A.R.P., suggests that in a month or two U.S. Government, architects, engineers and all comers will be starting our old disputes all over again. And this belief is fortified by a copy of the JOURNAL of the Royal Victorian Institute of Architects which has just got through from Australia. It is a special issue, and its principal article is a philippic on Deep Shelters *v.* the Rest.

★

Nothing better illustrates the speed at which our mental attitudes have changed in a year than the effort now required to read this short, well set out, article on what was once a flaming question for Britons.

It is a pro-deep-shelter article, and one would think that any normal man who has lain for half a dozen nights, surrounded by his nearest and dearest, while the Luftwaffe poured its all at his feet, would exclaim "go ahead at all costs." Yet he doesn't. He feels the whole subject is a crashing bore.

\*

But after reading this article, one does hope that Australia and the U.S.A. will realize, straightaway, the truth of four points.

\*

(1) Deep shelters for all in urban areas cannot possibly be achieved by any democracy, because democracies only begin to prepare for war at a time when the vast majority of their building resources must be devoted to far more urgent purposes. (2) With the larger part of the active civilian population mopped up in A.R.P. services designed to be in operation while the trouble is going on, they mostly serve the very old, and mothers with families. (3) The ordinary democrat dislikes inconvenience far more than danger after the first few bombs, and unless the shelters are equipped with impossible perfection and are situated in impossible proximity to all buildings, two-thirds of a city's inhabitants will not use them. (4) All the might of the boasted Luftwaffe, operating for nearly a year at point-blank range against Britain's packed urban agglomerations, has only inflicted the casualties of one decent battle in the last war.

A SINGLE BUILDING CODE

Another article in the same Australian Journal may be of interest to members of the building industry. It states that, after persistent effort by architects and builders, the Victorian Parliament had passed a bill unifying all building regulations within the State and bringing them up to date.

\*

A similar code made applicable to the whole of Britain would probably do more than any other single measure to ease the work of rebuilding after this war.

CENTRAL REGISTER

Dear Astragal—I was interested to read your notes on the Central Register. I quote the following extract from a letter received by my employer from the Ministry of Aircraft Production in a reply to a request for the deferment of my enlistment owing to extreme pressure of work on aircraft factory construction.

"With reference to your application for the deferment of enlistment of the above named employee, I am directed to inform you that the Ministry of Labour and National Service have stated that substitution of this man can be effected and no further deferment is therefore justified.

The National Service Authorities have, however, arranged to delay his calling up until after . . . . . (a date ten days after postmark) in order that you may take steps to obtain a replacement through your local employment exchange."

Apart from the fact that it is impossible in ten days to pick up the threads of a contract only 50 per cent. complete, it appears that the Ministry of Labour are not aware of the existence of the Central Register, and expect unemployed architects to be waiting hopefully in a queue outside the labour exchange.

Had the Central Register been functioning correctly, a suitable substitute above the age of reservation would have been forthcoming, and after the expiry of a reasonable overlapping period I would have been absorbed into the Services on duties compatible with the experience gained during twenty months of war work.

Such dovetailed organization is apparently considered unnecessary for the winning of the war, but the underlying principle can still remain one of the articles of our elusory peace aims.

RONALD HARDY.

Kew.

ALFS BUTTON

The Palace of Soviets in Moscow epitomises Soviet achievement in most fields of activity. Most of those who have been to Russia say there can be no doubt that it will be a wonderful place when the Ogpu can let up on the shooting and a large enough body of reliable administrators and technicians has been produced: but that in the meantime emphasis on past and future, and vagueness about the present position, can become very irritating to western Europeans.

\*

The periodic bulletins about the building of the Palace of Soviets are apt to be irritating in the same way. This building has been going on for two or three years now, and the only statement about what has been done in the latest bulletin is that the placing of the 220 ft. steel frame of the stylobate is "drawing to a close." On the other hand, the building will be seven times as big as the Empire State, will have 180 lifts and 230 escalators, will contain 45,000 people, its Great Hall will hold 22,000, and so on.\*

\*

But it is possible that one item in the description of the Great Hall may hold the attention of any potential delegate to meetings held there. The stage in the centre of this hall will contain eight platforms up to 130 ft. in diameter; and of these the first will be so mounted that "by the simple process of pressing a button" it can be converted, first into an ice rink and then into a swimming pool 13 feet deep.

\*

Whether the button in question is under the thumb of the Chairman I do not know. But if I was a delegate supporting an unpopular motion I would take no chances. I would sit near a side wall or wear a Mae West.

ASTRAGAL

\* Here is this week's hand-out from a Soviet propaganda department which admirably illustrates the same foible, i.e., megalomania in the future tense.

BIG BLAST

"Charges amounting to 3,255 tons of explosives, believed to be the biggest ever discharged at one time, are to be set off in Tajikistan. This huge blast will be used to drive a cutting through a hill for the Great Gissar Canal, 40 miles long, now under construction on the territory of the Tajik and Turkmenian Soviet republics.

According to Mr. M. N. Usachev, chief engineer of the All-Union Blasting Trust, which is handling the work, the explosion is to form a cutting one mile long, 33 to 66 ft. deep and 164 to 328 ft. wide at the top. As much as 29½ million cub. ft. of earth will be dislodged by the blast, which will also carry the waste away from the construction site. It is estimated that at least 3 million man-days would be required to cut a passage through the hill for the canal by ordinary methods, the engineer declared. The use of the explosives will cut this figure to 45,000. Our Trust plans to complete the job in 65 days. The explosion will be effected by a total of 63 charges laid at different points on the course of the future canal. All the charges will be set off simultaneously."

## NEWS

### CITY CORPORATION MAY BUY LONDON

A plan to buy all the land in the City of London, an area of 673 acres with a rateable value of £8,300,000, is being considered by the Corporation's Improvements Committee. This step, it is thought in some quarters, will be necessary to solve the enormous problems, including that of separate ownerships, likely to arise when post-war reconstruction has to be undertaken. The north-east section of the City, round Newgate Street and Cheapside, will probably be the first area to be tackled. Here air-raid damage has been so great that rebuilding is inevitable.

### R.I.B.A. EXHIBITION OF LONDON MAPS

An exhibition of maps, plans and panoramas of London from the 16th Century until to-day is being held at the R.I.B.A., 66, Portland Place, W.1, until Saturday, June 21, between the hours of 10 a.m. and 6 p.m. (Saturdays, 10 a.m. and 1 p.m.). Admission free. The exhibits, mainly drawn from the Royal Institute's own fine collection, have been chosen to show the growth of London during the past four hundred years, and to illustrate some of the attempts to replan and "improve" London. As a precautionary measure, the earlier maps and panoramas are mostly shown in the facsimile copies made by the London Topographical Society, but it is possible to exhibit the originals of most of the maps made after the middle of the 18th Century, and these include some of the finest examples of map engraving known.

### NEW PARTNERSHIP

Messrs. Harry W. Weedon, F.R.I.B.A., and Partners, Chartered Architects, of 129 Lordswood Road, Harborne, Birmingham, 17 have taken into partnership Mr. Arthur L. Hall, A.R.I.B.A., until recently their Chief Assistant.

## LAW REPORT

### *Not a Registered Architect*

Mr. Walter J. Haward, 78 High Street, Hoddesdon, Herts., Chairman of Hoddesdon Urban District Council, and his son, Mr. Hedley Haward, were summoned at Cheshunt Police Court for carrying on business under the name and style of "architect" without being a registered architect.

Mr. E. A. Williams, of Hertford, appeared on behalf of both defendants and pleaded guilty, intimating that there were extenuating circumstances.

Mr. W. Chalmers Hunt, prosecuting on behalf of the Architects' Registra-

tion Council, said the defendants carried on business as Haward and Haward, and were described on the nameplate displayed on the premises and on headed notepaper, as "auctioneers, estate agents, architects and surveyors."

"Until August 1, 1940, no offence had been committed under the 1931 Act," said Mr. Hunt, "because they did not describe themselves as registered architects. But on August 1 an amended Act came into force, and from that day an offence had been committed. The Council do not wish to be vindictive, but thought this case should be brought before the Bench in order that the public should be given indication that when they go to an architect they go to an architect and not to an estate agent."

Mr. Williams said that defendant, Hedley Haward, was the son of Mr. Haward senior, and went into business in 1934. He had been articled for several years to a very eminent architect. When he came into practice in 1934 he was absolutely entitled to do so.

"In January, 1940, he left the business and went away. At that day when Haward junior left he was still entitled to go on advertising himself as an architect," said Mr. Williams.

"This is really a sin of omission and not commission, because since January, 1940, there had been no practising as an architect, and no active participation by any unqualified person. In fact when Mr. Haward senior knew about this he offered to pay to the Registration Council the dues for his son to be registered as from 1934."

Each defendant was fined 10s. and ordered to pay 2 guineas costs.



Mr. Arthur W. Kenyon, the new President of the Architectural Association.

## LETTERS

G. B. J. ATHOE,  
*Secretary Incorporated Association of Architects and Surveyors.*

F. G. OSBORN  
E. A. SPIVEY

### *Fires in the Temple*

SIR,—The destruction wrought in the Temple reveals the fact that between 1666 and 1679 there were three serious fires there. In the last, which began in Pump Court, Judge Jeffreys, then Recorder of London, played no small part. The Thames was frozen, and, water in the conduits being frozen too, recourse was had to beer from the cellars, and the one and only fire-engine was fed with this till the supply gave out.

The fire reached Hare Court, when Jeffreys and other Benchers of the Middle Temple realized that it would also reach Fleet Street, with its inflammable houses, unless a gap were made by blowing up some of the Hare Court buildings. Consequently he procured as much gun-powder as he could and "had a train laid on the spot." The Duke of Monmouth, who had come in to help, was heard to say that he had "never met with people so willing to be blown up as these lawyers." Jeffreys' action saved both Fleet Street and the Temple Church.

G. B. J. ATHOE

London

### *Shops and Planning*

SIR,—Permit me three points on your most interesting editorial:

1. I am not a director of Welwyn Garden City. I was an executive of the Company up to five years ago.
2. I indicated in my letter various views on the Welwyn policy for retail shops, but did not say that I thought it had failed to prevent excessive daily movement.
3. I did not say the Company had no option but to set up their own stores alongside a limited number of private traders. I tried to indicate the reasons for their choice of this among many possible policies.

F. G. OSBORN

Welwyn Garden City

### *The Borders Case*

SIR,—In his notes on the "Borders" case in your issue of May 29, Astragal appears to be labouring under the same obsession that affected some members of the House of Lords in the debate on the recent Building Societies Act, viz. :—That building societies are what their name strictly implies.

Otherwise why does he suggest that they should maintain houses on which they merely have lent money.

When an architect is employed to design and superintend the erection of a house or other building he does not



throw the onus of maintenance for a certain period on the person who provides the money but on the contractor who builds it.

No other mortgagee expects to have to maintain property on which he has advanced money, quite the contrary. Why should building societies be treated differently?

Surely if any such organization for maintenance as Astragal suggests is desirable it should be set up by the builders, not the mortgagees whether building societies or private persons.

E. A. SPIVEY.

Colne

## FLASHBACK

*THE THIRTIES have now joined the Nineties in history—they have become a PERIOD. We are still too close to the Thirties to sum up their essential character, but we can, in moments of relaxation, look back at aspects of them with a certain pleasure. This is what Mr. Hugh Casson is doing—doing for the architectural profession before others do it for the larger world.*

## HODDER & STOUT PARTY

By Hugh Casson

**N**OBODY seeing Mr. Hodder hurrying primly across St. James' Park, on that fine spring morning, would have taken him for an architect. He would not, indeed, have wished anyone to do so, not because he was ashamed of his profession, but because he deprecated the sartorial emphasis laid by so many of his colleagues upon the artistic side of their job. Woolly suits and ties, in Mr. Hodder's opinion, usually meant woolly business methods. That was why he was always dressed in a black coat and striped trousers, in a wing collar and spats. That, too, was why he had his office among the engineers in Victoria Street, in an old-fashioned building with worn brass strips upon the stairs and with its windows uncompromisingly frosted.

Mr. Hodder even carried his nonsense attitude towards architecture to the extent of never allowing himself to draw with a soft pencil—a piece of self-discipline which caused considerable distress to his staff who disliked having their drawings scored with a series of incisions instead of lines. Once, an assistant who had received a drawing back from Mr. Hodder looking like a pianola-score, in desperation resolved to cure his employer of the habit. After hours of patient labour he succeeded in extracting the lead from a pencil and in replacing it with a steel knitting needle—the result being placed upon Mr. Hodder's desk. So far from taking the hint, Mr. Hodder used the doctored pencil with evident pleasure in order to

do a spirited full-size detail of a radiator casing. After that the office staff had lost heart, and contented themselves with procuring the thickest tracing paper and destroying every 6H pencil within sight.

It must not be thought from this that Mr. Hodder was a soul-less hack—dead to the æsthetic and creative side of his job. Far from it. Thirty years ago, indeed, he had been a Rome finalist, and practically unrivalled at turning out sheet after heavily rendered sheet of Pope's Palaces, Monasteries on Islands, and Memorials to great Composers. He was still an enthusiastic designer, and though a little weak on detail, he took much care and trouble over his schemes. His ability and conscientiousness had won him early success, and his practice had quickly developed from its youth of small houses, through the adolescence of village halls and shops to its full maturity of flats, factories and office blocks. He was at present one of the most successful—though not the most publicised—architects in the country and samples of his work could be seen in every part of London and the big provincial cities. Highly-coloured perspectives of them by Claude Pansey hung on the walls of his office waiting-room, their rows of Chinese white framed windows staring stonily at the visitor like a myriad little white-lidded eyes. The buildings themselves, which were for the most part pleasantly efficient if conventional in appearance, affected as a rule a rather negative Swedish-Georgian style, and were all extremely large. They were rarely published, and very few people bothered to look at them in the street, but they were all very profitable investments for his clients, and that, of course, was why Mr. Hodder was so successful. He played no tricks with such details as copings and architraves, he never invented tricky pieces of standardisation which meant torturing a building to fit them in, and if his flats were less well-known than some, at any rate they were usually more fully occupied. Mr. Hodder in fact saw to it that he kept his clients, and at this moment was on his way to meet one of the most loyal of them, Mr. Trim.

Harry Trim was Consolidated Properties M.C.: He was an ex-builder's clerk with a flair for money-making and a passion for real estate, qualities which he had turned to excellent effect. He had discovered Mr. Hodder in 1923 acting as architect to a small good-class housing estate in Surrey in which he had been financially interested. The houses had sold remarkably well, and Mr. Trim had been shrewd enough to realise that it was due quite as much to Mr. Hodder's planning as to the brilliance of the bathroom fittings. Ever since he had employed Mr. Hodder as architect, and he had not yet regretted it. He had learnt to leave the architect alone, and it was because Mr. Hodder had come to expect the minimum of interference from his client that his sharp stage-lawyer face

wore such a worried look as he trotted briskly up Lower Regent Street. Trim had rung up a few days ago and asked him to lunch to meet a Mrs. Rapture, and to discuss with her the design for the new entrance hall at Well Court. Mrs. Rapture it appeared was an old friend of Mr. Trim's and "very keen on interior decoration." Mr. Hodder hadn't liked the sound of that. Many of his colleagues, he knew, sub-let work which they should properly have done themselves, but he never liked doing it—and besides he enjoyed designing entrance halls. He had accepted the invitation rather crossly—after all Trim was a very good client—and decided he would take a firm line with Mrs. Rapture. To make sure he had brought with him in his pocket his own sketch design for the job.

As he left his hat and coat in the cloak-room of the Restaurant Royale, the attendant handed him a note. It was from Trim, and said he was sorry he couldn't come . . . detained . . . Mrs. Rapture . . . charming and able woman . . . table booked . . . Regards . . .

Mr. Hodder read it thoughtfully. Worse and worse. Trim was quite plainly ashamed of himself. He passed into the restaurant nervously, straightening his black tie. He wasn't much good with strange women.

He reached his table and ordered a sherry. The room was crowded with expensive looking people and the air heavy with an odour which Mr. Hodder recognised with weary familiarity as the smell of success. As he sipped his sherry he speculated idly upon the appearance of Mrs. Rapture and her probable taste in interior decoration. Flashy in both respects, he feared. He brooded over his glass.

Suddenly a voice boomed in his ears. "Are you Mr. Hodder?" He turned, spilling his sherry, to find standing at his side what appeared to be a huge pile of fox furs crowned inconsequently with a white feather.

He rose to his feet. "Mrs. Rapture?" he stammered forcing a smile. Really she was the largest woman he had ever seen.

"That's the girl," she replied in a voice like a concrete-mixer at work. "Sorry I'm late. I've been having hell's own row with a lino-layer." She bent down and flashed him a smile. To Mr. Hodder it looked as if the lid of a piano had been suddenly lifted.

Flinching slightly, he asked her to sit down. The furs heaved and cascaded to a lower level, as they fell apart, revealing the fleshy person of Mrs. Rapture, a handsome woman in her early forties, with a powerful jaw, lively dark eyes, and untidy bleached hair. She was carelessly dressed in expensive materials and smelled slightly of Russian Leather.

Mr. Hodder, temporarily overwhelmed, handed her the menu without speaking. She scanned it quickly and made an instant choice. Speaking in a voice

which made the glasses upon the table vibrate, she ordered Wiener Schnitzel, Vegetables and a large Pilsener.

Mr. Hodder's nervousness was increased. In restaurants he was a ditherer, the "I-think-I'll-have-the-same" type so despised by waiters. In an effort to impress Mrs. Rapture he gave a rapid and unthinking order, then looked up to find her eye coldly upon him. Clearly he had not got away with it. She adjusted her furs cheerfully. Mr. Hodder was going to be easy meat. In a high good-humour she addressed him upon the subject of herself.

Mrs. Rapture had built up a very profitable West-End property business upon the discovery, made soon after the Great War, that in the right district people will live in anything provided that it is white-washed and the windows are flanked with green shutters. "Anything" was no exaggeration. Old garages, ruinous stables, hay-lofts, mews-dwellings, lock-up shops, timber-stores, even disused tube stations were the material upon which Mrs. Rapture worked. The more impossible a building to live in, the more "amusing" her clients seemed to find it, the higher the price they seemed willing to pay. The minimum of alterations was demanded—a bath, a gas stove and lots of distemper were usually enough within, and for the outside, whitewash, shutters and a pair of bay trees in green tubs did the trick. The wavering she would entice with a nitchball or a foot scraper cut in a doggy silhouette. These never failed to turn the scale. Such relics about the house as mangers, harness hooks, inspection-pits or cobbled floors were carefully retained for their atmosphere. These transformations were cheap and were sold at enormous profit as fast as she could carry them out.

She traded under the name of Dolly Mayfayre in an office converted from an old stable at the back of Curzon Street. She had furnished it with a huge desk, white painted wrot-iron chairs, sheep-skin rugs and an ivory telephone. She kept her curtain samples in the manger, and a spotty assistant (for surveys) in a loft which was reached by a ladder painted scarlet. From this chic but uncomfortable address she worked the districts of Mayfair, Knightsbridge, Campden Hill, St. John's Wood and Chelsea, with an occasional daring foray into Islington, Greenwich or Rotherhithe. When the supply of "cottage type" material had started to dry up, she bought little smeared terraces of houses, nailed slats over them, fitted them with leaded lights and sold the lot as Thyme Close or Anne Boleyn Green. When the eighteenth century style became more fashionable, she ripped the timbering off again, and re-sold the properties, with the help of a job-lot of Georgian brass door knockers, under the names of Regency Close and Rake's End. As a side-line she "did" restaurants, hotel lounges, flat entrance halls and the like.

This was a simple business of subletting everything and taking a high rake-off on the bills.

As lunch proceeded, she told Mr. Hodder (and most of the room) of her struggles for success, of her triumphs and of her disappointments. "A woman sometimes has such difficulty in getting men to do things," she said, summoning a waiter with her left eyebrow. Mr. Hodder, who never seemed able to catch a waiter's eye, watched fascinated as two of them came hurrying white-faced to her side.

"Another Pilsener, please," she said, "and make it cold this time."

They scurried away like horrid little clockwork beetles. True to the tradition of business lunches, the subject of their meeting was not broached until coffee was served.

Mr. Hodder took the initiative. "About Well Court," he said bravely. "I'd like to discuss—"

Mrs. Rapture tapped the table with a massive forefinger.

"Don't you worry about that," she trumpeted. "I've got it all buttoned up."

Mr. Hodder smiled anxiously as he fumbled in his pocket for his little sketch.

"It's rather an unusual shape," he said, "the hall, low and—"

"Leave it to me," said Mrs. Rapture. "I know just what you want. . . . Bayswater, isn't it?"

She paused in thought a moment, as he nodded. "Well then," she boomed. "That means peach mirror, standard lamps, plastic paint and a little secret lighting here and there. Nothing to talk about, really, is there?"

The piano lid lifted again for a moment. Mr. Hodder, stunned and out-maneuvred, let the sketch fall back unopened in his pocket.

"Well," he said at last. "I'd like to consider your scheme a little before—"

Mrs. Rapture's attempt at a laugh set the coffee spoons dancing in their saucers.

"You will have your little joke," she said. "Fancy a busy man like you wanting to discuss a miserable little job like that. Miserable for you I mean," she added hastily.

Mr. Hodder smiled unconvincingly. "Well," he said, "I like to watch over the details of my work. I think it's most—"

Mrs. Rapture nodded. "That's the artist in you," she said—"I was just the same—never satisfied. I think we two will get on well together."

She dug him a crushing blow in the ribs. Mr. Hodder winced.

"I'm sure we shall," he said, "and now about the estimates for—"

"You will have them next week," said Mrs. Rapture—"just leave it to me. And now before I go will you do something for me?"

She sank her voice to a stentorian whisper only audible to the nearest half-dozen tables.

"Harry Trim," she said, "has bought me an estate in Sussex—an old Queen Anne house and park near the sea. I want to turn it into a high-class holiday camp—for the 'vogue'—Mayfair crowd, the people with the money you know—and do it up in the Regency style. Tudor's dead meat to those people. What they want is mahogany, striped silk and white paint—you know the sort of thing—with lots of tassels and negro statues and draped hangings—can't keep a big enough stock of them these days." Her eyes clouded momentarily in reminiscence.

"Well, as I was saying, we'll have to build some little chalets in the grounds, and this is where I want your help. Harry told me you knew all about columns and things, and I want some sort of design got out in the Regency style—nothing very grand, of course, but I want it to be right."

Mr. Hodder bridled a little.

"I shall be very pleased to do—"

Mrs. Rapture rose without awaiting his answer. "That's settled then," she said. "I'll come and see you about it next week. And by the way for that job I'm calling myself Brix, Ltd.—I'm beginning to think Dolly Mayfayre's a bit dated." She held out an enormous hand.

"Well, I must fly now. See you soon. Lovely to have met you." The piano lid was lifted in final salute, she crushed his hand in a farewell, and knocking over a couple of chairs, swept out of the restaurant like a charging grizzly. In the blast of passing, hats were knocked awry, coiffures ruined and table-cloths pulled askew. A page boy attired in Oriental dress was caught in the slipstream and momentarily knocked off his balance. Mrs. Rapture paused long enough to jerk him to his feet, and to point out a few of the more obvious inaccuracies in his costume before passing on through the revolving doors. The whirling leaves vomited into the room a valedictory gust of Russian Leather, and she was gone.

With bruised fingers Mr. Hodder fumbled for his money, paid the bill and walked unsteadily from the room. His ears still sang from the beat of her voice and his hands were trembling as they took his hat, coat and umbrella. He went out into the traffic-loud sunshine of Regent Street and moved unseeing through the crowds. He paused at last by a litter bin, and taking the sketch from his pocket, he tore it slowly into shreds and placed them neatly in the can. A small piece, caught by the breeze, escaped and fluttered to the pavement. Upon it was some almost undecipherable script, which looked as if it had been scratched upon the paper with a pin. It read: "suggest peach mirror on side walls with concealed lighting over" . . . gaily, mockingly, the scrap of paper with its message danced in the wind at the heels of Mr. Hodder.

ight  
een  
I  
day  
wd,  
w—  
yle.  
ple.  
ped  
the  
and  
gs—  
hem  
men-

e to  
nds,  
help.  
out  
sort  
le—  
ut I

iting  
she  
ut it  
t job  
-I'm  
yre's  
mous

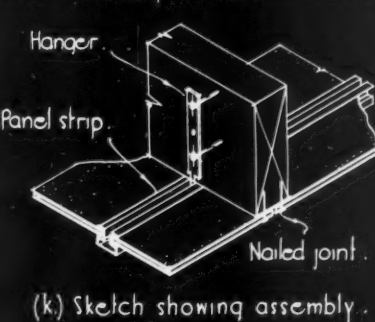
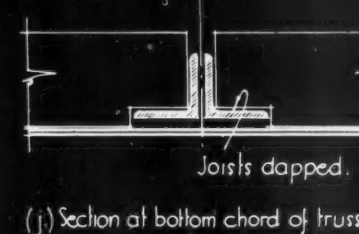
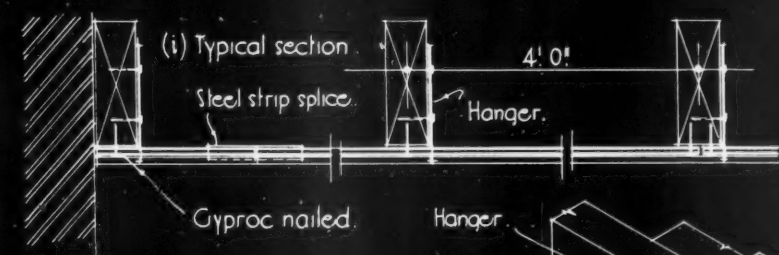
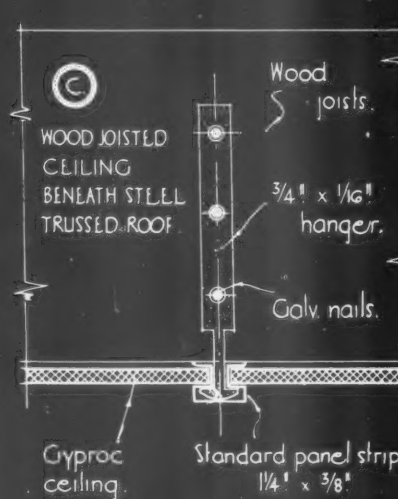
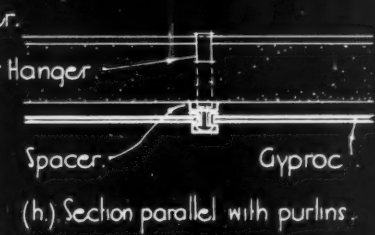
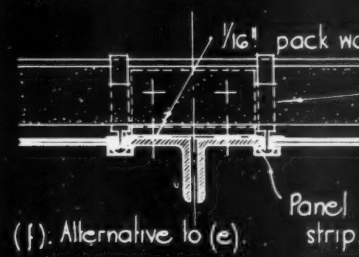
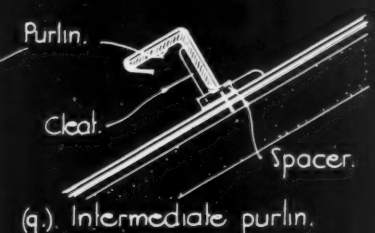
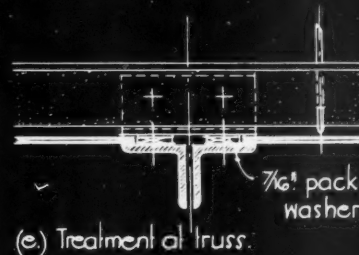
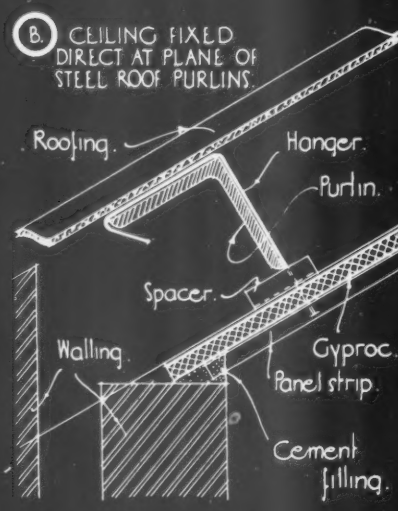
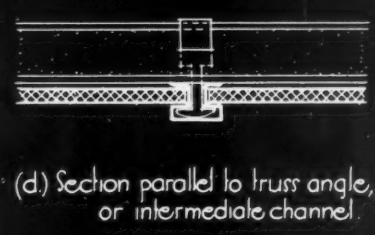
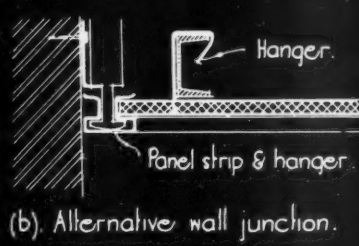
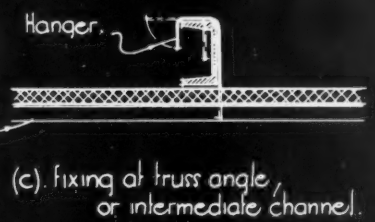
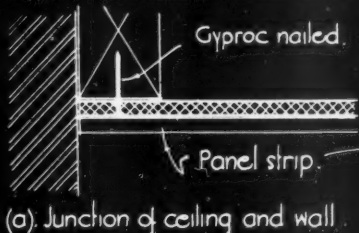
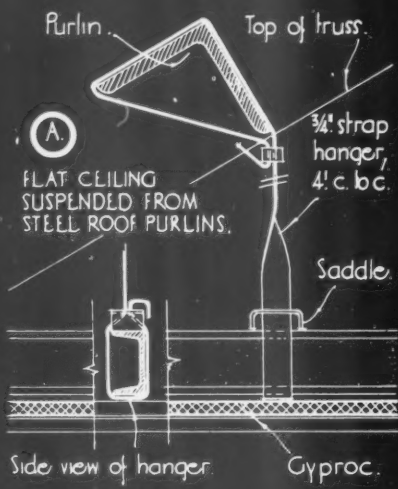
oon.  
o lid  
shed  
king  
f the  
n the  
cked  
loths  
d in  
slip-  
l off  
long  
d to  
vious  
efore  
oors.  
the  
ssian

odder  
l and  
His  
voice  
they  
went  
e of  
eeing  
t last  
from  
hreds  
a. A  
reeze,  
ment.  
erable  
been  
pin.  
a side  
' . . .  
paper  
nd at



THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

TYPICAL GYPSTELE SUSPENDED CEILING CONSTRUCTION



Issued by Gyproc Products Ltd.

INFORMATION SHEET: CEILINGS: SUSPENDED GYPSTELE SYSTEM. SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON W.C.1

## INFORMATION SHEET

• 829 •

### CEILINGS

**Product :** GYPSTELE Suspended Ceilings.

**Description :**

Gypstele ceilings combine the use of Gyproc fire-resisting plaster board as panels with patented, rustproofed, metal panel strips, fittings and hangers, forming light-weight structurally strong linings, suitable for both flat and sloping construction.

**Weight :**

The weight of this type of ceiling construction is under two pounds per square foot.

**Size :**

For normal construction, panel sizes are limited to 3 ft. 0 in. by 5 ft. 6 in. Where abnormal conditions of moisture occur, such as bath houses, laundries, cook-houses, etc., it is recommended that the size be limited to 2 ft. 0 in. by 5 ft. 6 in. (Larger panels can be used with type "C" as noted below).

**Finish :**

The sherardised finish of the metal panel strips allows the use of the same finish as for panels, paint or distemper.

**Types :**

There are three types of suspension :—

"A." Using secondary structural sup-

porting members slung from the roof structure.

"B." Connected direct to the underside of roof purlins.

"C." In combination with wood ceiling joists at 4ft. 0 in. centres.

Where Type "C" construction is adopted, the panel strips at the end of panels are omitted and the length of the Gyproc can be extended to 12 ft. 0 in. The Gyproc is then nailed to each joist, in the normal way, with rust-resisting, countersunk head, jagged wire nails 1½ in. long. End joints are then made under a joist and filled with joint filler in the usual way.

**Dry Technique :**

This system of ceiling can be suspended from any type of overhead construction, and is ready for decoration as soon as erected.

**Availability :**

Large stocks of metal sections and fittings allow prompt despatch to the building site.

**Quantities :**

Complete quantity survey and erection diagrams are provided for each job by the Company's Engineering Department.

**Issued by :** Gyproc Products, Limited.

**Scottish Address :** Gyproc Wharf, Shieldhall,  
Glasgow, S.W.1.

**Telephone :** Govan 614.

**Telegrams :** Gyproc, Glasgow.

**London Address :** Great Burgh, Epsom,  
Surrey.

**Telephone :** Burgh Heath 742-3—3470-6.

**Telegrams :** Gyproc, c/o Research, Epsom.







THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

PRACTICAL CONSIDERATIONS INVOLVED IN CONSTRUCTIONAL WELDING : (N° 1) :

FIGURE 1 : BUTT WELD.

Welding from above with plates in horizontal position.

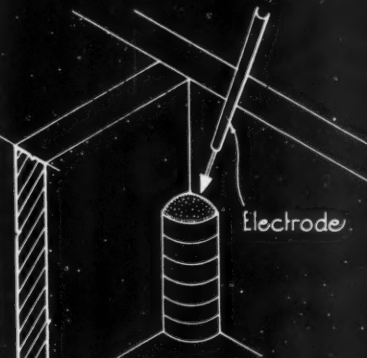
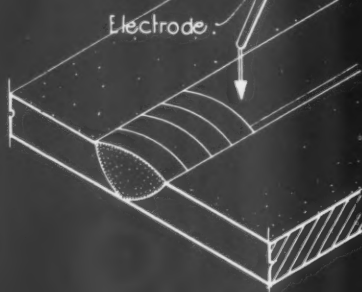


FIGURE 2 : FILLET WELD.  
Welding from above with plates in vertical position.

FIGURE 3 : BUTT WELD.  
Overhead welding

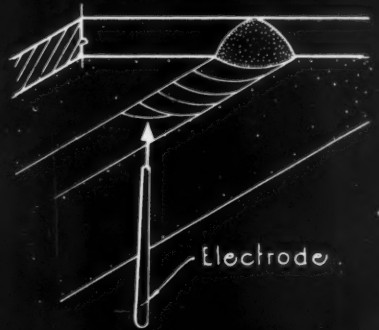
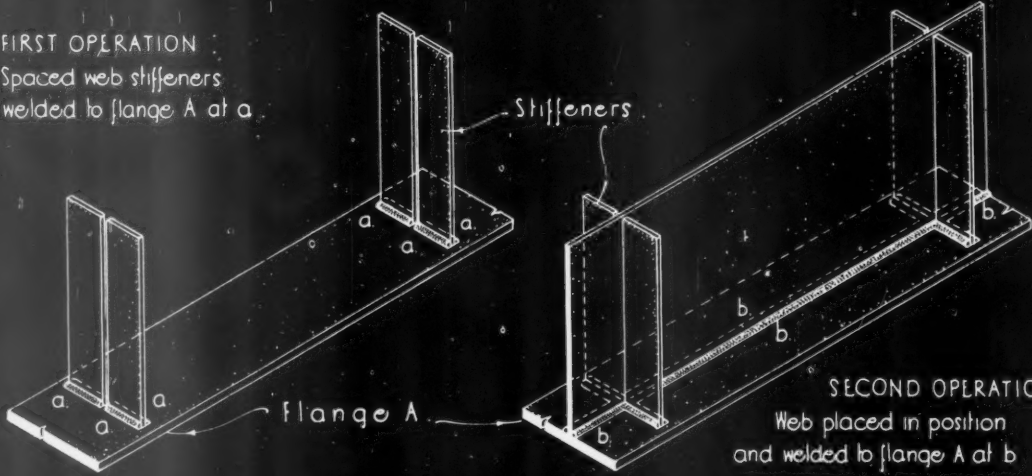
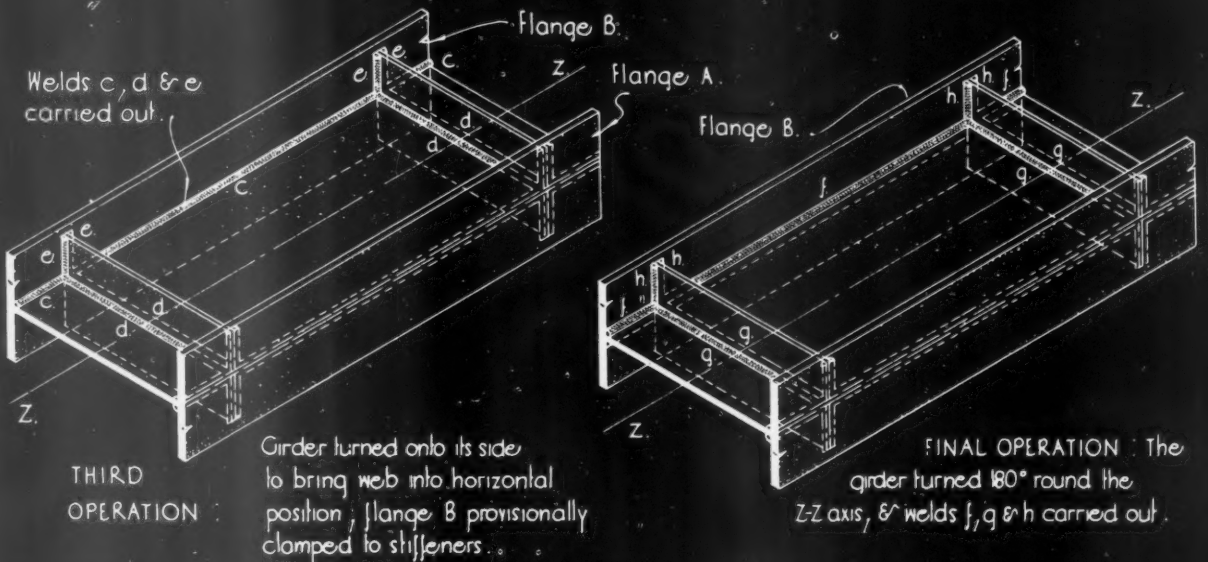


FIGURE 4 : ILLUSTRATING SEQUENCE OF SHOP-WELDING A PLATE GIRDER :

FIRST OPERATION :  
Spaced web stiffeners welded to flange A at a



SECOND OPERATION :  
Web placed in position and welded to flange A at b



Welds c, d & e carried out.

THIRD OPERATION

Girder turned onto its side to bring web into horizontal position; flange B provisionally clamped to stiffeners.

FINAL OPERATION : The girder turned 180° round the Z-Z axis, & welds f, g & h carried out.

Issued by Braithwaite & Co., Engineers, Ltd. Compiled by Samuel & Hamann, Consulting Engineers.

INFORMATION SHEET : STEEL FRAME CONSTRUCTION, 52 : WELDING N° 8.  
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1

## STRUCTURAL STEELWORK

**Subject :** Welding : Practical Considerations  
Involved in Constructional Welding  
No. 1.

**General :**

This series of Sheets on welded steel construction is a continuation of a preceding group dealing with riveted and bolted construction, and is intended to serve a similar purpose, namely, to indicate the way in which economical design as affected by general planning considerations may be obtained.

Both the principles of design and the general and detailed application of welded steelwork, are analysed in relation to the normal structural requirements of buildings. The economies in cover and dead weight resulting from lighter and smaller steel members and connections, are taken into consideration in the preliminary arrangement of the building components in order to obtain a maximum economy in the design of steel framing.

In Sheets Nos. 2, 3 and 4 of this group, the advantages of the welding of structures were set out ; but it is only to be expected that welding will involve a number of practical considerations. These will be illustrated and discussed in this and the following two Sheets.

It should be noted, in passing, that exact knowledge of the potential difficulties associated with the welding of structures, enables the steelwork to be constructed in such a way that these can be avoided, while the advantages set out in the previous Sheets are retained.

**Common Objections :**

Criticism of the principle of welding structural steel is often based upon the following arguments :—

1. The construction depends on the skill of the welder.
2. It is difficult to carry out certain welds.
3. There are erection difficulties.
4. Certain types of welds are inferior when subjected to shock or vibration.

The first argument has already been dealt with in Sheet No. 1 of this group, where it was shown that this view is biased, as with ordinary supervision the possibility of an accident in welded construction is as unlikely as one in reinforced concrete construction.

This Sheet, therefore, will deal with the second point : viz., the difficulty of carrying out certain welds.

**Types of Welds :**

Welds can be carried out in three positions :

1. Horizontally, with a downward electrode (Figure 1).
2. Vertically (Figure 2).
3. Horizontally, with an upward electrode (overhead) (Figure 3).

Any weld is best carried out from above, see Figure 1. The electrode is held in such a position that the melting material drops on to the steel to be welded (parent material) by gravitation, quite apart from local effects. The whole attention of the welder can be directed towards getting the required penetration and the correct melting in the parent material.

If a weld is to be carried out as indicated in Figure 2 (vertical welding), only the local effect of attraction is utilized, and the gravitation of the steel does not greatly help the placing. These welds are, therefore, more difficult to carry out.

Figure 3 shows an overhead weld, and in this case the welder has to work against gravitation. This type of weld is much more difficult to perform and considerable skill is required to execute it successfully.

**Design of Steelwork :**

A good design for welding is one in which as many downward welds as possible are used, and overhead welds are avoided altogether.

**Prefabrication in the Workshop :**

Nearly all welds can be carried out downwards, the material being placed in the right position for this purpose. Arrangements for turning the steelwork quickly into different positions should exist in any properly equipped workshop. Figure 4 shows the sequence to be observed when shop-welding a plate girder.

**Site Work :**

Units cannot, of course, be turned over at the site, and some welds have to be carried out when the steel members are in their final position. For this and other reasons (see Sheet No. 6 of this group) bolting is often used during erection for otherwise welded buildings. This combination is just as reasonable as that of bolting and riveting, and a suitable design for avoiding overhead welding at the site can be found in every instance. Where bolting is not resorted to the arrangement depends upon the skill of the designer, who should see that overhead welds are avoided, and vertical welds reduced to a minimum.

**Previous Sheets :**

Previous sheets of this series on structural steelwork are Nos. 729, 733, 736, 737, 741, 745, 751, 755, 759, 763, 765, 769, 770, 772, 773, 774, 775, 776, 777, 780, 783, 785, 789, 790, 793, 796, 798, 799, 800, 801, 802, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 816, 819, 822, 823, 824, 826, 827 and 828.

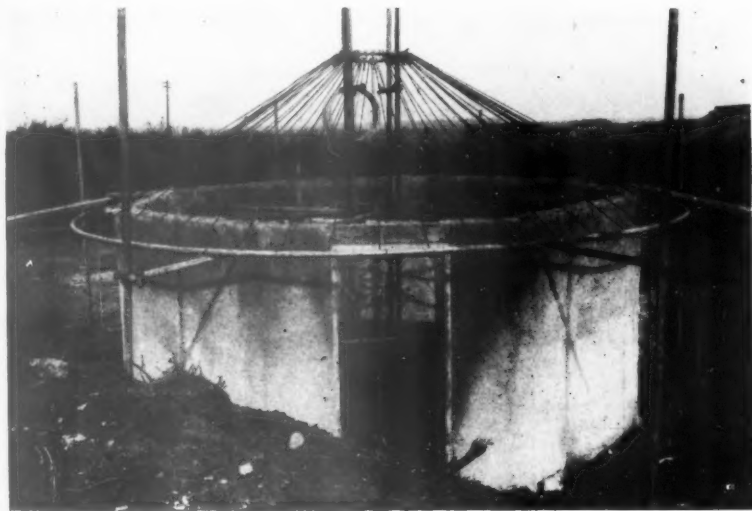
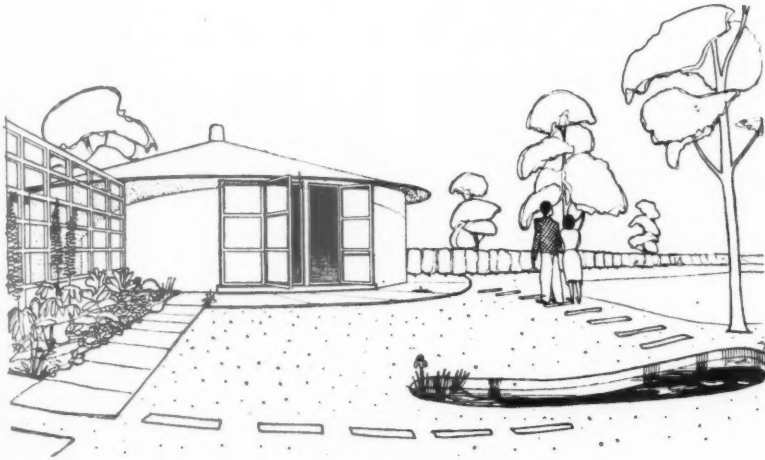
Issued by : Braithwaite and Co., Engineers,  
Ltd.

London Office (Temporary Address) :  
King's House, Haymarket,  
London, S.W.1.

Telephone : Whitehall 3993.

# A NEW CONSTRUCTIONAL METHOD

DESIGNED BY J. H. DE W. WALLER

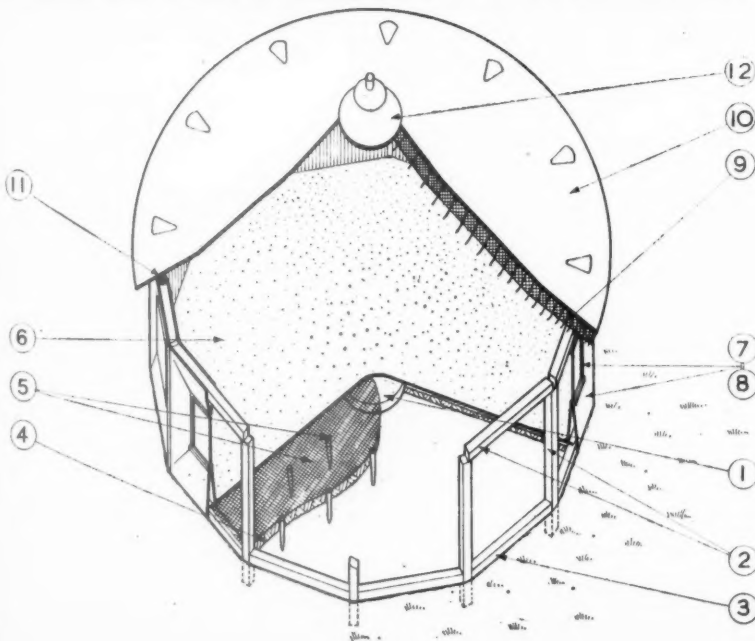


**GENERAL**—About thirty huts have been built with this new method of construction in various parts of the country, almost entirely with unskilled labour. The hut is duodecagonal on plan and has a conical roof of about 30° pitch. The diameter of the hut is 27 ft. and the height from floor to eaves 7 ft. The structure consists chiefly of a series of applications of cement and sand mix on a jute fabric. The inventor of the method of construction is Major J. H. de W. Waller, who is responsible for the designs illustrated on this and the following pages.

**APPLICATION**—The simple suspended concrete floor requires no steel reinforcement. For the roof the thickness of concrete required for considerable spans, i.e. 30 ft., does not exceed 1½ in. to 2 in. This thickness is required chiefly to provide adequate cover to the reinforcement. Owing to the conical shape of the roof, all tensile stresses are circumferential and can be calculated with accuracy, so that allowance can be made for moisture and thermal movement. The final roof provides a waterproof covering.

**METHOD OF ERECTION**—The numbers on the isometric drawing, reproduced on the left hand side of this page, relate to the various stages in erection which are described in detail under the same numbers in the following text.

**FLOORS—1**: A wood post is driven into the ground to determine the exact centre of the circle and the head of the post is cut off 1 in. below the proposed floor level. To assist in setting out, a nail is driven into the head of the post. Round this post an *in situ* pad of concrete some 9 in. thick and 3 ft. in diameter is poured.



*Top, perspective of a circular concrete hut; centre, the hut under construction. Left, isometric sketch: the numbers relate to the various stages of construction which are described in detail under the same numbers in the description.*

2 : From the fixed centre, the position of the precast concrete wall posts is determined and the posts are set in the ground with *in situ* concrete. Precast concrete lintols are placed on top of the posts and the joint between the post and lintol grouted up. The reinforcement in both post and lintol is left projecting in order to ensure a rigid joint, while that in the post projects still further so as to be incorporated in the roof and thus form a roof anchorage.

3 : From post to post a 6 in. by 6 in. trench is then dug in the ground. On either side of this trench rough boards are placed on edge and clamped to the wall posts to provide formwork for a dwarf wall, which is poured in *in situ* concrete to within 1 in. of the final floor level.

4 : The earth inside the circle thus enclosed by the dwarf wall is dug to a depth of 6 in., screeded off and blinded with a  $\frac{1}{2}$ -in. coat of sand level with the top of the dwarf wall. A sheet of jute fabric is then placed over the whole area and is secured by means of a small fillet to the outer plank of the formwork to the dwarf wall.

5 : Working off planks, the jute is then flushed with a 3 to 1 cement grout, the fabric being lifted occasionally to ensure that the grout flows through to the sand underneath. Next a series of holes about 3 ft. apart each way are formed in the sub-soil by a crowbar driven to stiff resistance.

6 : These holes are filled with a liquid grout and the floor is then ready to receive a layer of 3 to 1 concrete, which is finished with a wood float pivoting at the centre of the hut. The top of the central wood post and the top of the fillet which tacks the jute to the outer plank formwork to the dwarf wall act as guides to level. This concrete is commonly made 1 in. thick.

Note :—The floor is laid on soft earth in order that the earth will eventually shrink away from underneath the slab, thus leaving it supported on the miniature piles formed by the grout-filled crowbar holes. The shrinking away of the earth forms an air space beneath the slab and ensures a warm, dry floor.

WALLS—7 : The walls may be built now or, if more convenient, when the roof is completed, or at the same time as the roof. Two rows of nails, projecting half an inch and at 6 in. centres are inserted during casting on the top of the lintol and on the

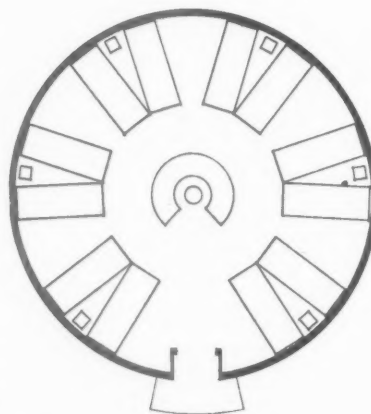
inside face of the concrete posts. These nails serve to anchor the top of the jute fabric, which is wound round outside and inside the concrete wall posts to form a cavity wall. The external skin of canvas requires no fixing, either to the posts or at the foot of the wall, since when the canvas shrinks it contracts. The internal skin of canvas is held in position by the nail on the inside of the post and is in addition nailed to a small timber fillet at the foot of the wall. This

fillet is set in position during the placing of the floor concrete.

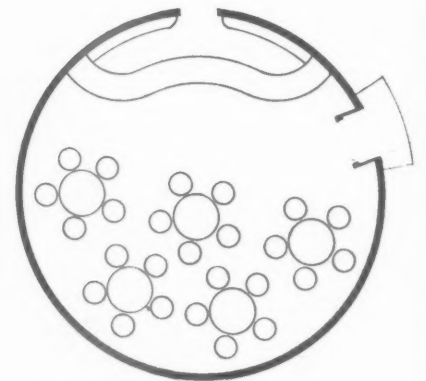
8 : Dummy window frames consisting of 2 in. by 1 in. battens are now placed in position, two frames being required for each opening. One of these frames is placed against the external face of the external jute skin and the other against the internal face of the internal jute skin and the frames are then drawn together by means of thumbscrews, thus giving the wall panels



#### SUGGESTED USES FOR THE CIRCULAR



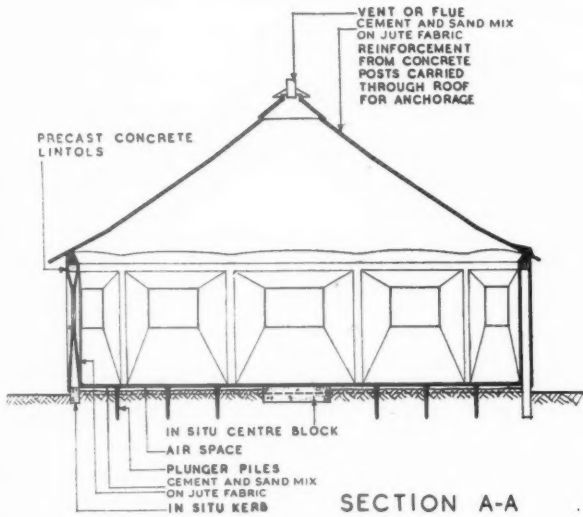
DORMITORY



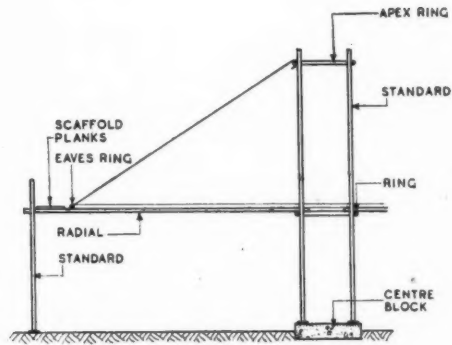
CANTEEN

CIRCULAR CONCRETE HUT

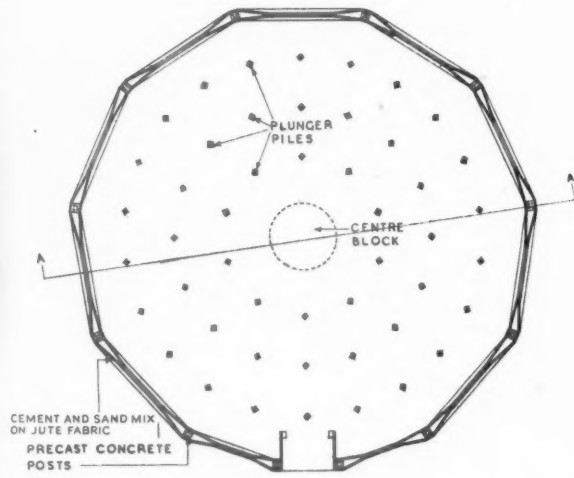
SCAFFOLDING DETAILS



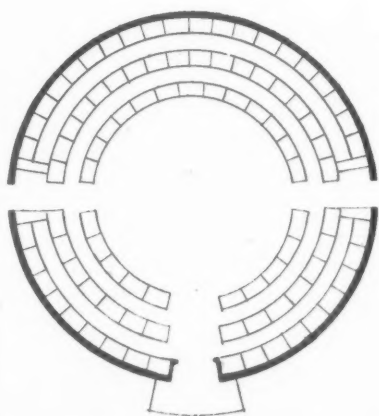
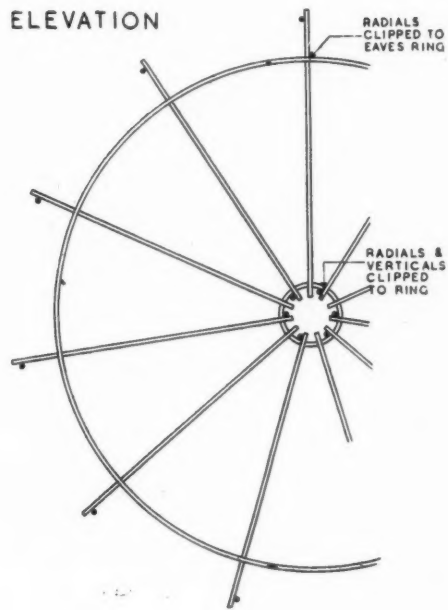
SECTION A-A



ELEVATION

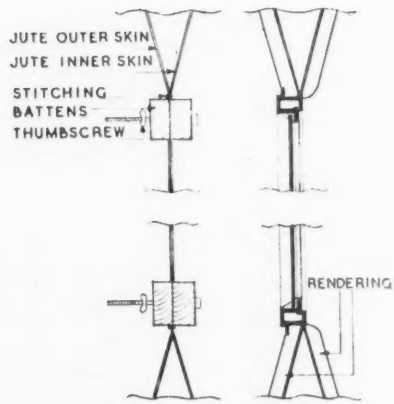


CONCRETE HUT

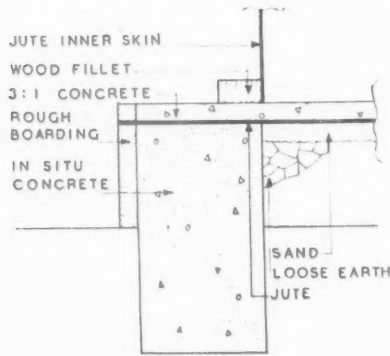


ASSEMBLY HALL

DESIGNED BY J. H. DE W. WALLER



FIRST STAGE  
COMPLETED  
WINDOW DETAIL



DETAIL AT BASE OF EXTERNAL WALL SHOWING INNER JUTE SKIN IN POSITION

their characteristic shape. Where the outer and inner skins of fabric touch round the window openings, they are sewn together. The fabric is then flushed with grout and the temporary window frames removed. A steel window is placed against the outer skin and propped in position while further rendering coats are applied and when the rendering has set, the props are removed and the canvas which still fills the window opening is cut out.

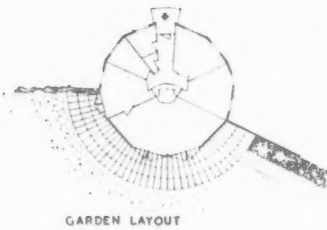
**ROOFS—9 :** Tubular steel scaffolding having tubular rings at the apex and foot of the conical roof is erected. The top tubular ring provides fixing for a series of  $\frac{3}{8}$ -in. diameter rods which run fanwise from apex to base; the rods are hooked over the apex ring and threaded through the base ring. This skeleton acts as support for the fabric, which is now placed umbrella fashion over the whole roof. The fabric is lashed to the tubular rings at apex and base and is flushed with grout.

**10 :** When the grout has set, the reinforcement can be placed. All reinforcement consists of No. 10 S.W.G. wires, a small amount being placed radially but the greater portion circumferentially either in spirals or as separate rings. The spacing of the reinforcement graduates from 3 in. apart at the eaves up to 1 ft. 6 in. apart at the apex. The roof is then rendered in two coats up to a finished thickness of  $1\frac{1}{2}$  in. to 2 in.

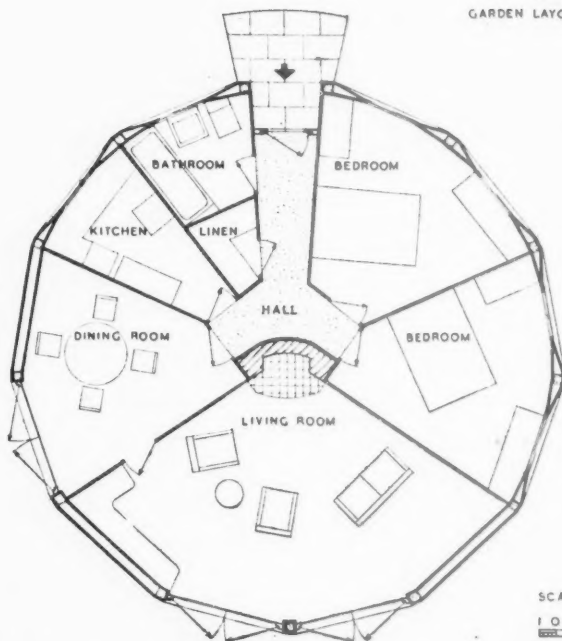
**11 :** When the roof rendering has set, the space between the top of the lintols and the walls is built up. The scaffolding may then be removed and the  $\frac{3}{8}$ -in. diameter radial rods, which acted as support to the fabric roof are withdrawn from the apex. Holes left in the wall by the scaffolding are made good.

**12 :** The roof is now completed except for the filling of the central hole. There are various methods of filling this hole, for example a miniature conical roof of the requisite diameter can be made on the ground and placed in position. The miniature roof, of course, can be raised on blocks to provide ventilation or be designed to accommodate a central flue. Alternatively this hole may be covered with a lantern.

The roof can be used in conjunction with walls of brick, concrete or other material. All the roof stresses are taken by the steel and concrete, the fabric being used merely as a means of supporting the concrete until it has set. In this respect the roof differs from the walls, where jute is relied upon as a reinforcement.



GARDEN LAYOUT



THE HUT USED AS A HOUSE

# HOUSE AT GREAT SUTTON, CHESHIRE

BY RICHARD  
H. KELLY



**SITE**—The site is an open one and contains tree plantations and spinneys which originally formed part of the landscape designed in conjunction with Caperhurst Grange. Trees were preserved as far as possible. The spinney on the south side of the house is composed of horse chestnuts.

**CONSTRUCTION**—11 in. cavity stock bricks, rough cast; roof, slates. Ground floor: concrete, finished with oak blocks; kitchen, 6 in. by 6 in. heather brown tiles; first floor, tongued and grooved boarding on joists.

**INTERNAL FINISHES**—Plaster, finished pale colours. Kitchen and larder, walls tiled from floor to ceiling. Bathroom walls tiled to height of 6 ft. 6 in. in 4 in. by 4 in. matt black tiles; sanitary fittings, green. Doors throughout are hollow, flush finished in mahogany to ground floor rooms.



## NEWS ITEM

### A.A.S.T.A. AND RESERVED ARCHITECTS

The following memorandum has been presented to the Minister of Labour, Mr. Ernest Bevin, by a deputation from the Association of Architects, Surveyors and Technical Assistants.

I. Architects have been placed once more on the Schedule of Reserved Occupations, the age of reservation being 35. We believe that the position is still unsatisfactory in the following respects:—

- (a) The reservation applies only to those registered under the Architects (Registration) Acts and not to the many trained and capable assistants who, while not on the Register, carry on most of the work of the profession.
- (b) Architects and architectural assistants below the age of 35 are still being called up, though in most instances they are engaged on essential work, often on work that they alone can do.
- (c) The architectural schools, which are a vital part of the profession, are suffering seriously because students are not allowed to complete their training. The effects of this policy are that the reduced architectural profession is further depleted and its rapid restoration after the war is made impossible.

II. Every day brings new examples of the chaotic state

of the wartime construction programme of this country. Hasty organization has placed control in the hands of completely unsuitable persons, building schemes have been undertaken with quite inadequate preparation, and supervision during the progress of the works has been lacking. Everything points to the need for placing control in the hands of those trained and experienced to exercise it.

In the badly bombed cities plans for reconstruction are a centre of interest. Yet the only men capable of planning and preparing for the reconstruction of the New Britain are being drawn in increasing numbers into the armed forces where, in most instances, no use whatever is made of their special skill and they are, of course, unable to do the work which is most urgently needed at this moment. The volume of work now is sufficient, if it is to be efficiently carried out, to keep engaged the whole of the architectural profession at its pre-war strength; after the war the demands will be much greater.

The problem of the architectural student is one that cannot be evaded. If students are not allowed to complete their studies there will be a gap in the profession impossible to close. Architectural schools will disappear and it may be years before this supremely important technical education can be reorganized.

THE BUILDER said in its editorial of April 25th: "It takes a long time to train an architect, and we shall not be able to wave a wand over the returning troops and produce at will a multitude of planners."

The official attitude that it is impossible to reserve the profession at a lower age than 35 because of National Registration already carried out appears to have no reasonable basis. What is wanted is the assurance that members of the profession who have not yet been called up shall not be called up in the future.

III. There is a regrettable tendency—we hope it will not prove a fatal tendency—to fail to recognize the import-

ance of the profession because it is not a direct producer of goods for war use. But without the help of the profession such goods cannot be produced. The excuse is made that slipshod methods are necessary because there is not time for proper planning—but the need for speed is one of the factors that a proper plan will take into account.

Faultless organization is impossible if the organizing forces are inadequate. Officially there is lip-service to the view that the technician is as important as the soldier, but our man-power is undefined and in practice appears to aim at building an enormous army with an inadequate industrial backing.

This is a lesson that must be learnt and that we believe the people of this country, with the evidence of many fiascos before them, are willing to accept. We therefore put forward the following proposals:—

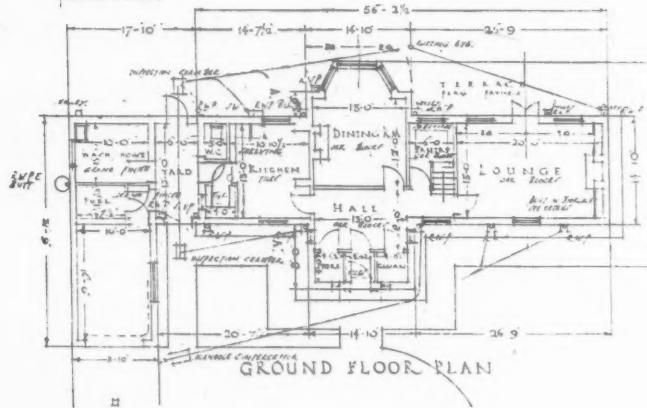
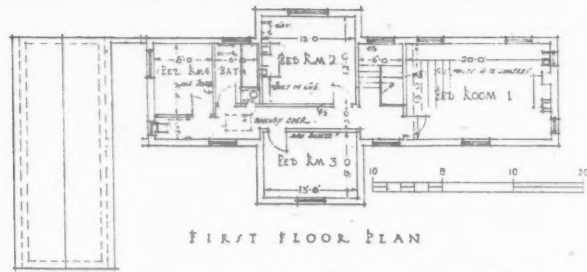
- (a) The term "Architect" in the Schedule of Reserved Occupations should be supplemented by the term "Architectural Assistant" as defined by this Association in a previous communication, of which a copy is appended.
- (b) The term "architect" and "architectural assistant" should be further supplemented by the term "architectural student" in accordance with the definition of a student already accepted for other professions.
- (c) Architects, architectural assistants and architectural students should be reserved from the age of 18.

\***Architectural Assistant**.—A person normally working under the supervision of an architect and capable of making designs or working drawings for the construction of buildings and of supervising their construction. It will be noted that this definition would apply to "persons normally working under the supervision of an architect" even though they might, at the time in question, be working for a surveyor, engineer or contractor.



HOUSE AT  
GREAT SUTTON,  
CHESHIRE

BY RICHARD  
H. KELLY



The general contractors were Thomas Warrington & Sons.

For list of contractors, see page xviii.

Above, the dining room,  
left, lounge.





# Waterproofing

**B**RIGGS "AQUALITE" System of Waterproofing is being used on many important wartime projects—for surface or underground Air Raid Shelters, A.R.P. and First Aid Posts, whether of concrete, brick or stone.

For seventy-five years BRIGGS of Dundee have been famous for their specialised knowledge of waterproofing, and throughout the building and allied trades their Bitumen Roofing Felts and Sheeting, Bitumen Solutions, Emulsions, Pastes and Asphalts, etc. have set a standard in waterproofing materials.

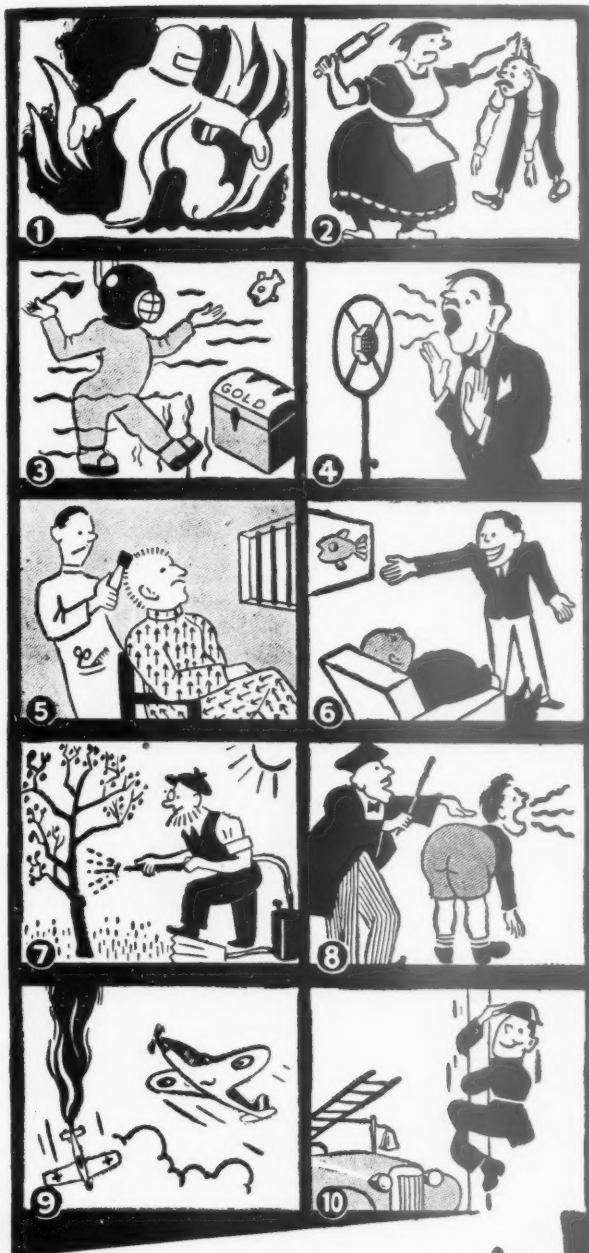
BRIGGS, who are official contractors to H.M. Office of Works, Air Ministry, Admiralty, War Office, etc., have skilled men available for waterproofing work in any part of the country. Details and quotations on application.

*William Briggs & Sons Ltd.,*

**DUNDEE**

**LONDON: VAUXHALL GROVE, S.W. 8.**

Also at: EDINBURGH • GLASGOW • ABERDEEN • LIVERPOOL • BRISTOL • NORWICH



All the answers are in  
**GYPROC**  
LIGHTWEIGHT BUILDING SLABS

- 1 HEAT RESISTING.
- 2 STRUCTURAL STRENGTH.
- 3 DAMP PROOF.
- 4 SOUND ABSORBING.
- 5 VERMIN PROOF.
- 6 DRY ROT PROOF.
- 7 FUNGUS PROOF.
- 8 PERFECT BASE FOR RENDERING.
- 9 SOON UP AND UP FOR GOOD.
- 10 READY AVAILABILITY.

**GYPROC PRODUCTS LIMITED**

GREAT BURGH, EPSOM, SURREY. Phone: Burgh Heath 3470-6. Head Office: 21 St. James's Sq., London, S.W.1. Phone: Whitehall 8021. Glasgow Office: Gyproc Wharf, Shieldhall, Glasgow, S.W.1. Phone: Govan 614-5.

**ACCELERATION OF BUILDING AND CONSTRUCTIONAL OPERATIONS**

During the spring and summer months building activities throughout the country will of necessity be greatly accelerated.

War Office contracts, factory construction and extensions, rehousing, reconstruction and "first aid" to damaged buildings . . . all such work will keep architects, builders and local authorities busily engaged.

**THE PROBLEM OF MATERIALS**

The control and conservation of building materials is, in total war, essential to ordered progress. No one will dispute the wisdom of planned control, though many may regret its embarrassments.

**THE USE OF TEAK**

For many constructional and other purposes BURMA TEAK (*Tectona Grandis*) is the ideal wood. Because of its exceptional stability, great durability and unusual weather-resisting qualities, it is frequently, and would with advantage be more frequently, specified for internal and external work where reliability is demanded. (Used externally it requires no protective covering of paint; it weathers to a pleasant grey tone which is superficial only, or its original colour may be retained by a coat of clear varnish. For interior use it responds well to wax polish.)

TEAK is also highly acid-resistant and therefore most suitable for joinery, working benches, vats, drums, paddles, etc., in chemical laboratories and factories.

Its fire-resisting qualities are universally known.

**THE RELEASE OF TEAK**

TEAK is officially recognised as an essential war-time import. Adequate supplies are available and the price remains moderate. Stocks are held by timber merchants in all important centres throughout the country.

As with all other woods, and most other basic building materials, control of release is exercised, but for work that has received official sanction, and where Teak has been particularly specified, it is available and will be released.

**SPECIFY BURMA TEAK**

There is only one true Teak—*Tectona Grandis*—the British Standard Institution's "Nomenclature of Hardwoods" (December 1939) is emphatic on this point. Timbers of other botanical species may masquerade as "Teak," but they cannot be relied upon to behave as the genuine TEAK behaves.

ISSUED BY THE BURMA TEAK SHIPPERS

## SOME QUESTIONS ANSWERED THIS WEEK:

- ★ *COULD you advise me concerning repair of bomb damage to a house?* - - - - - Q 728
- ★ *WHAT company manufactures standard teak windows?* - - - - - Q 730
- ★ *WHAT is the best way to train as a draughts-woman?* - - - - - Q 731
- ★ *CAN wood veneer be satisfactorily applied to plasterboard?* - - - - - Q 733

## THE ARCHITECTS' JOURNAL

## INFORMATION CENTRE

THE Information Centre answers any question about architecture, building, or the professions and trades within the building industry. It does so free of charge, and its help is available to any member of the industry.

*Enquirers do not have to wait* for an answer until their question is published in the JOURNAL. Answers are sent direct to enquirers as soon as they have been prepared. The service is confidential; and in no case is the identity of an enquirer disclosed to a third party. Samples and descriptive literature sent to the Information Centre by manufacturers for the use of a particular enquirer are forwarded whenever the director of the Centre considers them likely to be of use.

Questions should be sent by post to—

THE ARCHITECTS' JOURNAL  
45 THE AVENUE, CHEAM, SURREY

—but in cases where an enquirer urgently requires an answer to a simple question, he may save time by telephoning the question to—

VIGILANT 0087

The reply will come by post.

## Q 728

ARCHITECT, WARWICKSHIRE. — *Could you please advise me at your earliest convenience on the following query concerning REPAIR OF BOMB DAMAGE to a house.*

*A client of mine had his house damaged by enemy action some three months ago. The local council did some "first-aid" repairs, such as tarpaulins to roof and a temporary strut to a gable wall. A claim was prepared in the usual manner and sent in on March 1. Beyond a printed acknowledgment nothing further has been heard from the district valuer.*

*The local council are now insisting that my client should pull down the portions of premises badly damaged, as they consider them unsafe. My client feels that he should not incur any expense until he knows that the claim or a substantial part of it is admitted, and that it is the duty of the local council to do the demolition if they consider the premises unsafe.*

*I have an idea that under the Housing Emergency Powers Act (1939) the local council can do any repairs they think fit and charge them to the property and, moreover, as they first strutted the dangerous wall, should complete the work if they think it necessary. #*

*Could you please say: (a) Are the local council acting within their powers*

*in demanding that the owner carries out the work of making the premises safe.*  
 (b) *Can an additional claim for the cost of this be sent to the district valuer.*  
 (c) *Any other advice on the matter you can give.*

We do not think that the local council can insist upon your clients pulling down the unsafe portions of the premises, and we think it probable that if he refrains from doing so, the council will themselves put the work in hand. We think that you would do well to write to the council pointing out that they have already erected shoring and that it would be better for them to complete the work. Incidentally, work done by the council no longer becomes a charge upon the property and, of course, no compensation will be paid for such work.

We do not think that you need have any qualms about receiving the proper amount of compensation. If you have already had an acknowledgment of your claim you will in due course receive Form C.2/V in which you will be asked for the builder's account for any work not carried out by the council, together with a certificate signed by the builder or by the architect if one was employed. Subject to the checking of these costs there is little doubt that you will receive, as compensation, the full amount of the account, even though it exceeds the amount claimed in your V.O.W.1 Form.

If you wish to feel that you have done everything possible in your client's interests you might submit another V.O.W.1 Form at this stage claiming additional compensation and pointing out that as the council originally shored up the premises and now demands that it shall be pulled down, the damage was obviously more severe than was believed at the time, or that vibration from gunfire, etc., must have increased the damage since the date of the previous claim. As we have already pointed out, however, the War Damage Commissioners now accept the builder's account certified by the architect, subject to checking prices, etc., and we personally do not consider that it is necessary to submit a second V.O.W.1 Form.

### Q 729

ARCHITECTS, MIDDLESEX. — *Is there a Government controlled price for Air Compressors?*

Air Compressors are not price regulated, but you would have to obtain a Steel Allocation Order in order to purchase one.

INFORMATION CENTRE

### Q 730

ARCHITECT, SOMERSET.—*I am told that there is a company which manufactures a range of STANDARD WINDOW FRAMES OF TEAK construction. Do you know the name of this company and whether they are still manufacturing?*

We know of only one firm that manufactured standard teak window frames, and this is the McDougall Timber Co. Ltd., of 45, Byron Street, Glasgow.

### Q 731

ENQUIRER, BOURNEMOUTH.—*I shall be obliged if you will kindly advise me on the following matter.*

*I understand that TRAINING AS a DRAUGHTSWOMAN is available under a Government scheme. If this is the case, could you give me particulars of where to apply for this training? Perhaps you could suggest some other way to obtain training. Also, what is your opinion as to the prospects of employment as a draughtswoman now and after the war is over.*

*I have had no training in draughtsmanship, but some time ago attended a school of art, where I specialized in line work and did some architectural drawing in which I am greatly interested.*

*My age is 25, and my present occupation a secretary. I shall be grateful for your assistance.*

If you wish to train as a draughtswoman under the Government scheme, you should apply to the local labour exchange. It is essential that you should find out what kind of draughtswomen are needed most before you begin training; for once the most elementary training in mechanical drawing is completed, the nature of further training depends entirely on what you are to be asked to draw. Draughtsmanship for mechanical engineering, structural engineering and architecture each have different techniques. For this reason we can give you no advice on prospects for draughtswomen after the war, save that both architects and structural engineers are likely to need many draughtsmen. You must, however, bear in mind that to be a useful, and therefore well paid, architectural or engineering draughtswoman, you must be trained as an architect or engineer. If there are no ordinary schools in Bournemouth, we can let you have the names and addresses of suitable correspondence schools if required, but we think it would be much better for you to apply direct to the local labour exchange in the ordinary way.

### Q 732

ARCHITECTS, LONDON.—*Could you tell us whether the undermentioned firm is still in business, and if so what its present address is:—*

*Gray Horton Products, late of 9, Great Turnstile, Holborn, London, W.C.2.*

We cannot trace the new address of the firm mentioned in your enquiry, and assume that it is no longer in business. We understand, however, that if you write to 9, Great Turnstile, c/o the present occupiers, they would forward your letter on to one of the Directors.

### Q 733

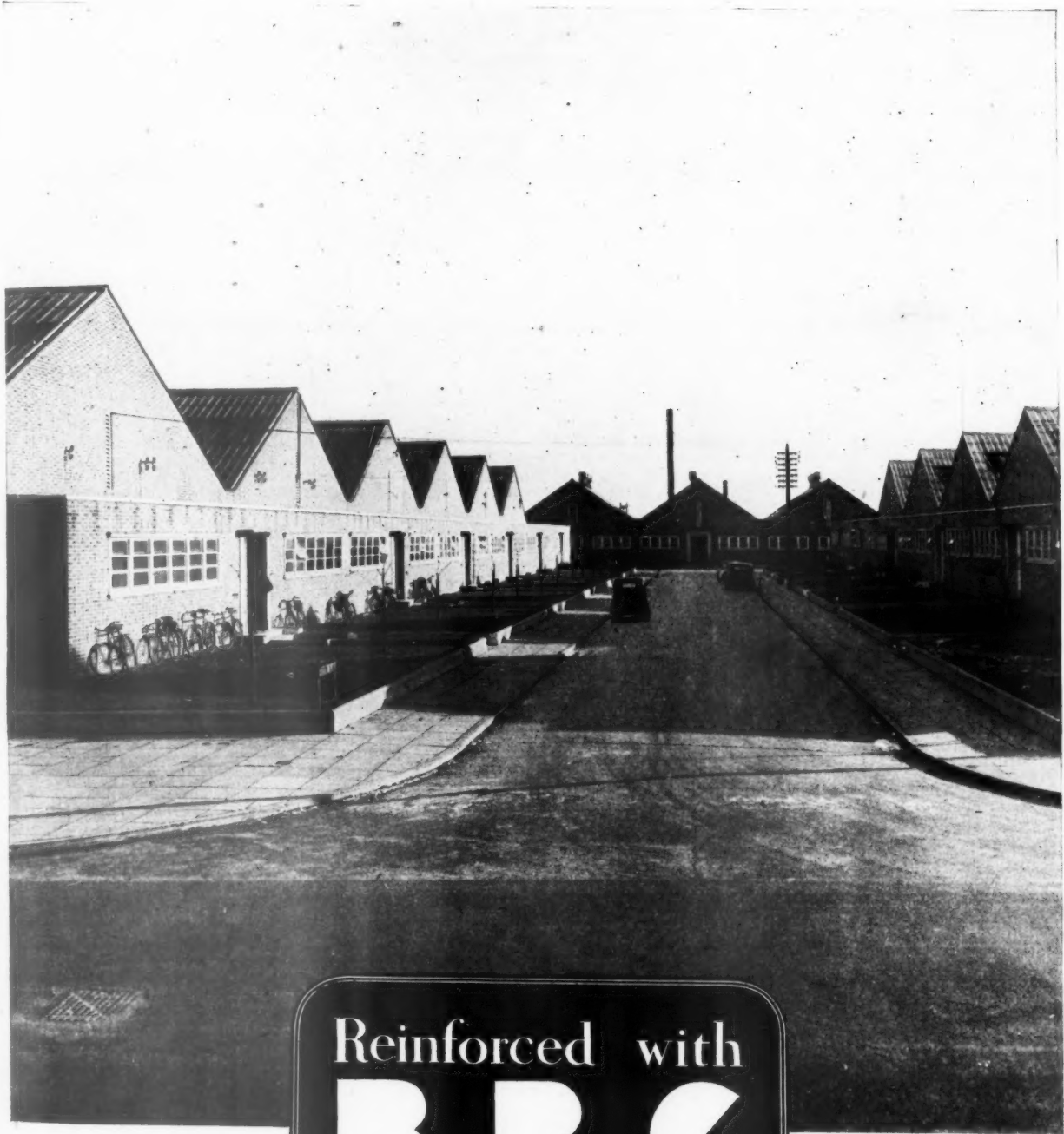
ARCHITECT, WORCESTER.—*Can you tell me whether WOOD VENEER can be satisfactorily APPLIED TO PLASTERBOARD, and are different adhesives recommended for use with different veneers?*

If Flexwood or some similar product which has a backing to it, were applied to a paper-covered plasterboard the result ought to be satisfactory. We do not think that different adhesives would have to be used for different types of plywood, but if you wish to experiment we suggest that you should get in touch with the B.B. Chemical Co., Ltd., of Ulverscroft Road, Leicester, who make a large range of adhesives for different purposes. As you are probably more interested in the results than the methods of manufacture, we suggest that you get in touch with Messrs. Hitchins Flush Woodwork Ltd., 76, High Street South, London, E.6, who manufacture plasterboard faced with veneers. The actual plasterboard used is Gyproc. We might add that Messrs. Hitchins' products have already been used in large quantities, and they would no doubt send you details or samples if requested.

### Q 734

ENQUIRER.—*A friend of mine has recently purchased a small house. It was built less than seven years ago and the tiled ROOF is now quite extensively COVERED WITH MOSS. The moss was there when my friend bought the house, but he did not regard it as a possible "fault," in fact, he rather liked the appearance of it. The house is on estate developed by a firm of speculative builders, but none of the other roofs has been affected in the same way. To what possible causes would you attribute the growth of the*

# Concrete Approach Roads



Reinforced with  
**B R C**  
Welded Fabric

Concrete Approach Roads and Aprons ensure a permanently clean and consistently serviceable approach to factories, etc. B.R.C. Welded Fabric used in their construction gives greater strength and 50% more road area than the same amount of concrete unreinforced.

*moss, and is it quite as harmless as my friend imagines?*

The moss is probably harmless unless it is sufficiently thick or in sufficient quantities to produce dampness in the roof. We regret that we cannot commit ourselves on this point, however, without seeing a sample of the tiling and moss. As this is rather a specialized subject you might prefer to send a sample to The Clay Products Technical Bureau of Great Britain, 90, Ebury Street, London, S.W.1, who would give you an expert opinion.

It is equally impossible to establish the cause of the growth without seeing a sample, but it is possible that the tiles became infected when they were stacked on a particular part of the site. Tiles have been known to become affected by contact with packing cases which are themselves infected.

**ANNOUNCEMENT**

The architectural and surveying practice for so many years carried on by the late Mr. W. R. Howell at No. 17, Blagrove Street, Reading, has been acquired by Mr. W. J. Freeman, A.R.I.B.A., and Mr. G. Batten, L.R.I.B.A., who were respectively manager and principal assistant in the practice. The practice will be carried on in the name of Howell, Freeman and Batten, Chartered Architects, Surveyors.

**TRADE NOTES**

*Y.M.C.A. Recreation Hall*

Mr. Kenneth J. Lindy, F.I.A.A., architect for the Y.M.C.A. hospital recreation hall, illustrated in the ARCHITECTS' JOURNAL for December 19 last, has made a report on the condition of the building after six months use by approximately 1,500 men each day. The hall is built entirely of timber and was presented to the Y.M.C.A. by the Timber Trade Federation of the United Kingdom.

Mr. Lindy states that it is only natural with the number of men who are continually using this building, well shod with army boots, that the appearance of the floors is such that no sign of grain or colour is apparent: Yet in spite of all this the oak floor in the concert hall shows little sign of deterioration, and the same can be said for the gurjun floor in the quiet room and the pyinkado in the billiards room. In every respect the condition of the woodwork and the finishing of the building, apart from the few slight marks which naturally occur in a building of this type when put to heavy use, is excellent. Although subjected to a considerable amount of shrapnel, the Western red cedar shingles on the roof have not suffered the slightest damage, and even a piece of shrapnel as large as a man's hand simply glanced off.

The following letter was sent to Mr. Leonard Arnott, the President of the Timber Trade Federation, by the architect:

Dear Mr. Arnott,—

During the course of the last week I visited the recreation hall to take off a list of maintenance items due for correction by Messrs. Longley under their contract.

I am pleased to say that the items concerned are not only comparatively insignificant in themselves but they also constituted one of the shortest lists I have ever taken off in a building of this size after six months' use.

This, of course, speaks well for the contractor's workmanship, and a great part is due to the excellence of the materials provided by your subscribers and members and selected by your timber experts.

Furthermore, I have not seen a building stand up to the rigorous test of six months' use as a Y.M.C.A. hut as this one has done. Surely a good enough testimonial for the use of timber.

Yours faithfully,  
(Sgd.) KENNETH J. LINDY.

**CHANGE OF ADDRESS**

Messrs. John Keppie & Henderson, chartered architects, have moved to 26, Blythswood Square, Glasgow, C.2.

Messrs. W. Alexander Harvey, F.R.I.B.A., M.T.P.I., and H. Graham Wicks, F.R.I.B.A., architects, have moved to 117, Hagley Road, Edgbaston, Birmingham, 16. Telephone: EDGBaston 3087.

**THE BUILDINGS ILLUSTRATED**

HOUSE AT GREAT SUTTON, CHESHIRE (pages 391-392). Architect: Richard H. Kelly, A.R.I.B.A. The general contractors were Thomas Warrington and Sons. Subcontractors and suppliers included Ruberoid Co., Ltd. dampcourses; Votty & Bowydd Slate Quarries and Oakeley Slate Quarries Co., slates; R. W. Brooke & Co., wood-block flooring; Dennis & Co. (H. Dyke Dennis), heather brown tiles; Ideal Boilers, Ltd., Cookanheat boiler; Cosy Stove Co., Ltd., Cosy stove and travatine grate; R. W. Haughton & Co., copper; Campbell & Mabbs, door furniture; Williams & Watson, window furniture; Baldocks, mantels.

**A RONUK PRODUCT**



**★ WOOD DYE**

★ THE "1-COAT" TRANSPARENT PENETRATING, PERMANENT PRESERVATIVE STAIN FOR ALL NEW WOODWORK.

*It cannot raise the grain.*

★ 12 SHADES: ALL SIZES

**ADVISORY SERVICE**  
Shade cards, panels, full directions and working instructions for contractors' use, estimates and 45 years of specialists' experience are at your service.

**RONUK Ltd., Portslade, Sussex**  
Polishing 16 South Molton Street  
Contract Depot London, W.1



5d. each  
4/8 doz.  
(including tax)  
from your usual  
Supplier

**WHY TURQUOISE ARE BETTER**

The lead in every pencil hearing our Registered Trade Mark "Chemi-Sealed" is covered with an impervious film (patented process) to which glue adheres perfectly, thus bonding lead and wood into a single unit so strong that point-breakage is normally impossible.

In architectural drawing offices where the finest work and speediest output are attained, you'll find, as often as not, that TURQUOISE Pencils are standard.

Leads that cannot be broken in normal use, accuracy and uniformity of grading and unvarying smoothness, have won for TURQUOISE, the unanimous approval of experienced draughtsmen everywhere.

Please write on business heading for **FREE SAMPLE SET**, stating degrees required and name of your usual supplier.



MADE IN ENGLAND BY EAGLE PENCIL COMPANY, LONDON, N.17

7 DEGREES: 6B 5B 4B 3B 2B B HB F H 2H 3H 4H 5H 6H 7H 8H 9H

ation  
e cor-  
e not  
they  
ever  
se.  
work-  
ce of  
ubers  
up to  
but  
ontal

ov.  
son,  
26,

B.A.,  
B.A.,  
gley  
ele-

G S  
D  
HIRE  
H.  
were  
ctors  
Ltd.  
rries  
W.  
is &  
iles ;  
Cosy  
ate ;  
ll &  
son,

ILS

where  
ediest  
often  
s are  
nor-  
ty of  
hness,  
unani-  
ughts-  
g for  
egrees  
usual

ed  
E  
S

N, N.17  
H. 9H