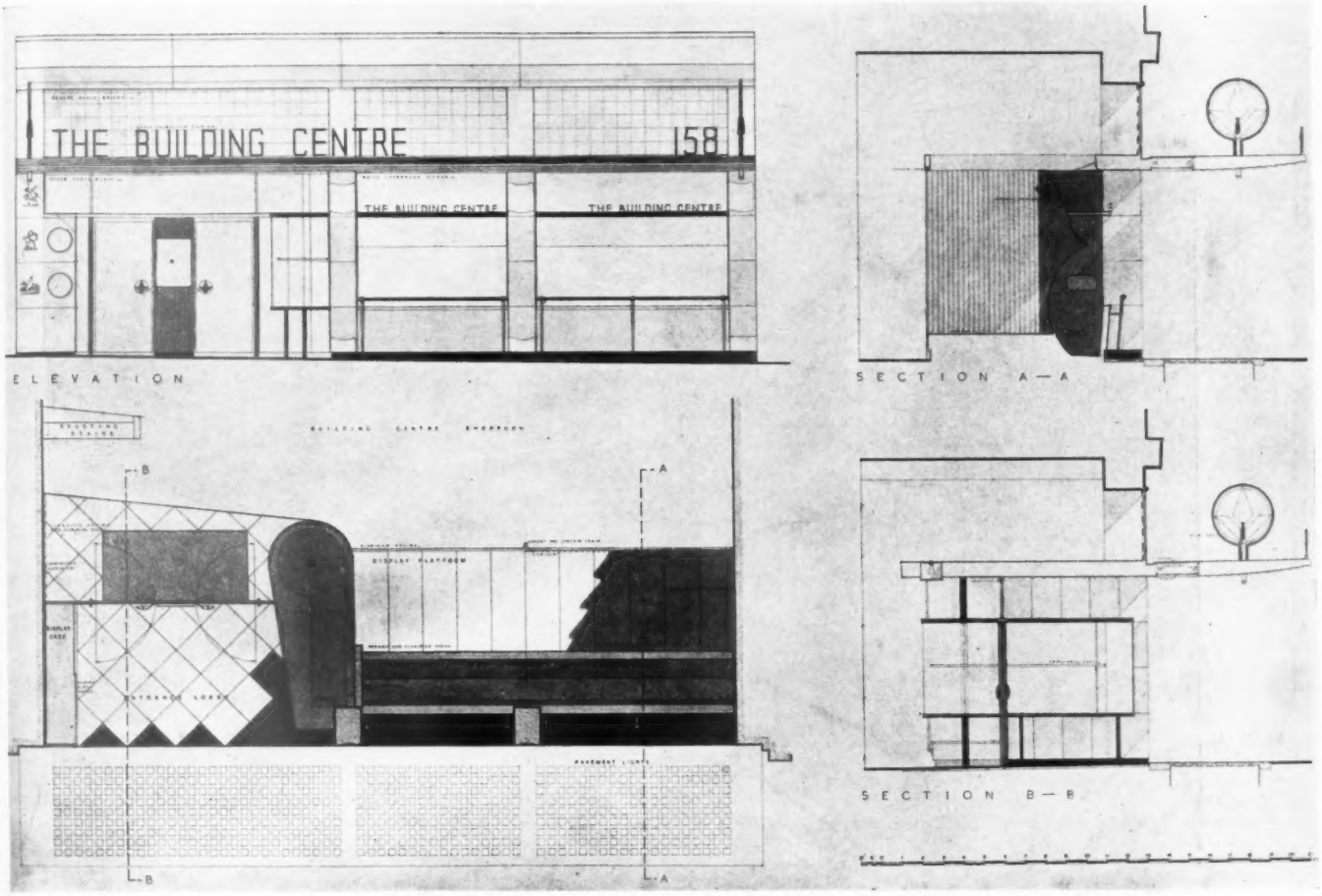
SHOP FRONT COMPETITION: WINNING DESIGN



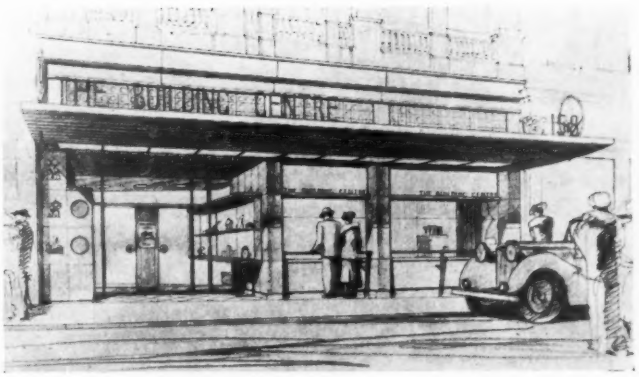
BY P. J. WESTWOOD AND SONS

THE result of the competition for a new shop front and entrance in aluminium for the Building Centre, promoted by the Northern Aluminium Company in conjunction with the Building Centre, has been announced as follows :

First Premium (£100) : P. J. Westwood and Sons, F/A.R.I.B.A.
Second Premium (£50) : R. Seifert, A.R.I.B.A.
Special mentions : H. F. Hoar, B.A., A.R.I.B.A., A.M.P.T.I. ; J. D. M. Harvey, B.A. ; F. E. C. Ramsay ; E. Banks, A.I.A.A. ; L. H. Telfer ; and R. Malcolm Graham and Frank Moate.

The drawings submitted will be on exhibition at the Building Centre until Saturday, November 18, daily from 10 a.m. to 4 p.m.

The winners, in their report, said : " Advantage has been taken of the suggestion that the entrance might be placed on the left-hand side of the site. Thus, space in front of the existing stairs has been utilized as a vestibule, leaving the whole front free for display. One non-reflecting window runs the whole length ; it has been set back behind the central column. Display platform has been placed behind the window and has a curtain running on a track for a background. By adjusting the position of the curtain various display arrangements and views into the interior of the Centre can be arranged. Above non-reflecting window there is a transome light of white Thermolux glass. At night the small aluminium lettering over the windows would be silhouetted against this glass. Canopy has been kept about 9 ft. above the pavement, thus giving a good proportion to the window openings and also allowing ample daylight to enter showrooms through the glass brick wall above.

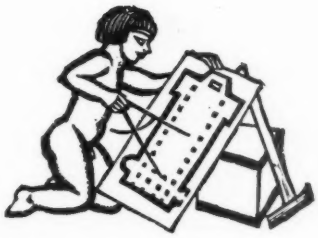


" Materials : External. Generally, with the following exceptions, the whole front would be of anodized aluminium left its natural colour or dyed as shown on the drawing canopy : underside would have alternate strips of anodized and scratch brushed finishes, the latter being clear lacquered. Edge of canopy would have a frosted finish. Door and window frames would all be of extruded sections anodized finished. Plaques would be cast and anodized. Large lettering is aluminium tubing, stove enamelled red ; small lettering, ⅜-in. thick by 1½-in. deep, is anodized. Walls and baffles to non-reflecting window would be painted matt black. Railings would be frosted finish."

The design placed second is reproduced on page 541.

MR. TAIT'S AIR RAID SHELTER

Mr. Thomas S. Tait, F.R.I.B.A., inspects his shelter "somewhere near London." The shelter is one of the first of a new type evolved by Concrete Ltd. It is known as the Bison Wattle shelter, and consists of a circular wall of concrete between two walls of wattle hurdling, with a concrete floor and roof. The shelter, walls and roof of which are 12 in. thick, has a height of 6 feet, with a minimum diameter of 6 feet. This gives ample space for seven people. The cost of a shelter of this size, exclusive of equipment, is approximately £70, according to locality.



CAMPS—OR 3 YEARS IN BILLETS?

". . . the whole question of hutting policy is one which might very properly be surveyed again by the departments and by Parliament with a view to collaboration for the removal of several causes of public irritation and of no small damage to national interests."—*The Times:* Leader, October 9.

ON this page last week we discussed some of the serious disadvantages of a casual billeting system for evacuated school children as opposed to an organized camp system. We pointed out that the most serious objection to the billeting system was *the loss of a great opportunity*, the one big chance of social improvement which can occur in this war.

This week let us look at the alternative—a system of camps.

We do not suggest that there should be any sudden change-over from the billeting to the camp system. The conversion should be very carefully planned and carried out by clear stages.

It is necessary first to concentrate on building camps for elementary school children who have come from the very poorest city environment, for it is with these children that there is the greatest need for health control and careful psychological adjustment. This is a fact which would certainly be accepted both by the general public and by the County Councils.

The sites chosen for the first series of camps would not necessarily be in those districts where children are now housed. They should be chosen with more than a thought for their eventual peace-time use, in a "safe" area yet reasonably accessible from the built-up city, and in woodland (or near-woodland) rather than upon open agricultural land, either grass or arable. The peace-time "holidays-with-pay" and the children's "fortnight-in-the-country" should be remembered when planning the sites for these camps.

From the point of view of economic production, there should be a prefabrication system, designed for universal use in relation to school planning principles and allowing reasonable flexibility of arrangement and easy assembling by *unskilled* labour.

If the camps were thought out in this way, relying on unskilled labour and even enlisting the help of the children, it should be possible to build them at a cost of not more than £30 per child, or half the normal cost of fully equipped elementary schools. This would depend on the standard of accommodation adopted, but obviously for war-time use allowance would have to be made for alternative use of rooms, and special arrangements would have to be made for increasing the normal school day and staggering the periods of work and play. Though additional accommodation would be required for sleeping, gymnasia and elaborate recreational facilities would not be needed in country districts.

If as many as half a million children were to be catered for, the total cost of camp accommodation, making an allowance of £5,000,000 for the purchasing and laying out of sites, should not exceed £20,000,000.

This expenditure would be a war-and-peace investment to improve the health and spirits and usefulness of a large section of the community. In the second place, from this expenditure we have to deduct the present cost to the Government of the billeting system. The difficulty of efficiently organizing health control and healthy dieting, the wastage in time and energy due to a haphazard system—all these cost money, which could be better spent.

The actual cost to the Government of billeting, including the allowances to householders, has not been made clear so far. But it would not be surprising to find that the saved cost of the billeting system, spread over three years, would pay for about half the cost of a camp system. In other words, it is likely that half a million children could be satisfactorily housed in camps for an additional expenditure of £10,000,000, at the most.

It is essential that we should not consider these camps exclusively as a war-time measure. The planning of them must be linked to the educational and recreational building programme of peace. It is not impossible that some of the camp settlements might be conceived as the longed-for "village colleges" in certain rural areas. In some other cases, the prefabricated sections could be taken down after the war and reassembled for other uses elsewhere.

It would be reasonable for schemes to be worked out separately by local authorities with special Government grants, but it may well be that a central authority could best evolve a camp system for all evacuees. Incidentally, a large proportion of the land purchased for camp sites could be cultivated usefully by the older children for war-time produce, in accordance with the suggestions made by the Minister of Agriculture.

What is more, a nationally planned camp system could become a small-scale model for a wholesale peace-time National Plan—an aim which we must never allow ourselves to lose sight of in the present struggle for world political order.

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

NOTES & TOPICS

A TIME FOR WATCHING . . .

ADVERSE comment on every action of all Ministries and official departments has now become the whole-time recreation of our resolute and cheerful community. One feels almost certain there must be a good deal to be said on the other side . . .

*

And even if this is not so, it would now need powerful notes, knockout arguments, to make themselves heard above the uproar. Wise tactics for the building industry seem therefore to be : make allowances for first actions of Service departments in building matters; prepare a cast-iron plan for remedying faults ; put it before the Government at a suitable moment, with united front and Churchillian tenacity.

*

The faults which seem to be creeping into Service methods of allotting building contracts are those which became familiar in the last war : huge contracts are given to big firms on cost-plus-profit basis and the sketchiest of plans and specifications ; easy materials (like timber) are commandeered for the fortunate firms without consideration for the rest of the industry.

*

This may be necessary for the first, *vital* work. But it is so easy, so tempting a way for *all* war work. That is the danger.

*

If it is continued it must lead to colossal waste and, what is more, to the disruption of the building industry as it is now organized. That industry may be needed, in working order, at any moment. A geographical spread-over of war contracts, and sufficient additional public or private works to keep the industry going in skeleton form, must be obtained fairly soon even if they mean the Biggest Row Ever with the Ministries. But we must wait for the right moment.

. . . AND MOST CAREFUL ACTIONS

This can only be done by the industry and its allied professions in close formation. Its attainment will be next door to impossible if special pleas for one section or another of the industry are made at random in the meanwhile.

*

It is in this connection that architects should be specially careful. Many architects can always be sure of getting a letter in *The Times*, and they therefore should be especially careful not to weaken the strong arguments of the whole industry (plus professions) by emphasizing their own pet dilemma.

*

Easily best among such letters, in my view, was the President's letter to *The Times* (quoted here on October 19) in which he pointed out that the normal annual expenditure on building was £225,000,000. Money talks ; and any Government will think twice before flouting the considered advice of so big an industry.

*

Easily worst of such letters, in my view, was Sir Herbert Baker's letter—also in *The Times* (October 24). This letter may be fairly summarized by its concluding sentence : " In wartime the torch must not be dimmed, but should burn with an even brighter flame."

*

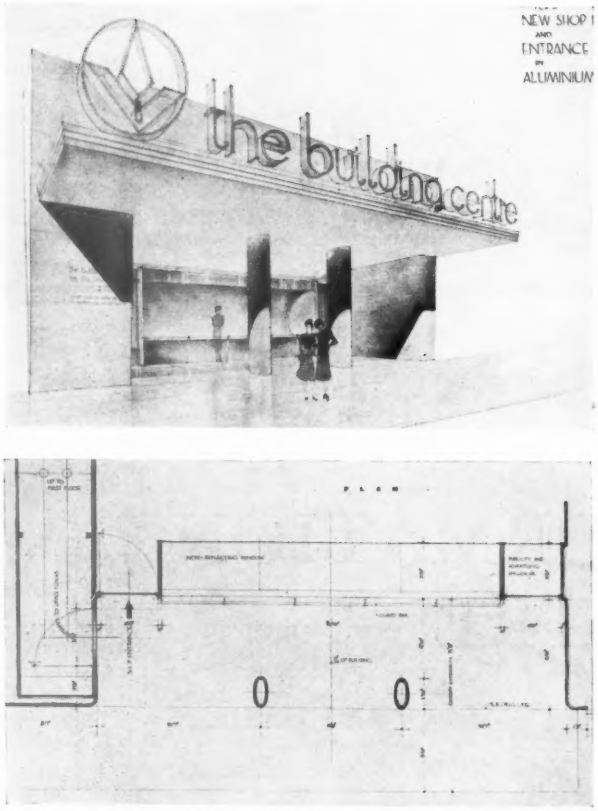
Of course it should—but it won't, and it is absurd to suppose it will. And a letter like this reinforces the far too general idea that architects can do nothing whatever of direct use in prosecuting the war. We know we can be of great use. The public does not. And letters like this do not go far towards telling them.

EVACUATION AND THE A.A.S.T.A.

When war broke out a Committee of the A.A.S.T.A. had been preparing for some months a study of Evacuation as thorough as their former famous work *Structural A.R.P.*

*

This second Report was to have suggested, I believe, that the migration " for the duration " of between 1½ and 3 million children and adults was something that needed as



Design placed second (by R. Seiffert) in the Building Centre Shopfront Competition.

much thought as the expansion of an armed service ; it was to have listed the problems involved and to have illustrated its contentions by the study of the " reception " resources of a typical reception area.

*

Overtaken by Evacuation in reality, the Committee has, wisely, abandoned its large-scale work. Last week it published a short survey of what has actually happened to evacuees, together with some suggestions for remedying bad conditions.

*

The position disclosed is none the better for being much what we know or can imagine. As a kind of glorified picnic dependent on goodwill and makeshifts for getting over difficulties, the conditions now in force may suffice for a month, or three months, longer. For three years they would be quite impossible.

*

The A.A.S.T.A. maintains that nursery schools, social facilities for mothers and full education for school-children are essential. At the moment covered and warmed *space* is the first need—for classes, social events, meals.

*

There is no doubt the problem must be tackled soon by social organizers, teachers, and planners. By using large houses and similar buildings much could be done (if military authorities waive their claims to accommodation reserved but not used). But the A.A.S.T.A. makes it clear that if health and education are to be maintained, a quite considerable new building programme must be carried out. The reception areas simply don't possess the minimum facilities which will be needed.

WHY THE BIDS RUN HIGH

A four-page leaflet entitled *Lutheran Church Art* reaches me from time to time from Cleveland, Ohio. It is printed " in the interest of church building of the better sort, church music, liturgics, paramentics, campanology and kindred subjects." The current issue stresses the fact that clients should treat their architects in a Christian manner. Here it is :—

A few years ago a congregation decided to build. They were given a list of reliable architects, and they selected one of the best men in the country. They furnished him with a long list of requirements. The church must seat 400. It most emphatically must have a good basement. It must have an imposing tower. It must not cost over $40,000.

The architect told them frankly that they were expecting too much for their money, but they would not yield an inch on their list of requirements. After much fruitless persuasion, the architect finally gave up trying to get them to omit the basement and tower. They insisted, so the drawings were made. Their requirements were met to the letter. The architect gave them a design that was all that one might wish, in so far as simplicity and economy of design is concerned. There were no frills whatever.

When bids were taken, they ran around $60,000. It was found that the basement alone ran just under $20,000, and the tower came to $12,000. Basement and tower together ate up just $32,000 of their available funds.

Now, two courses were open to that congregation. One way out of the difficulty was to hold four or five meetings, to work themselves up to a proper spirit of wrath, and finally to write the architect an abusive letter, blaming him because the bids ran high, and refusing to pay him for several weeks' work that he had done faithfully and well. The other way was to write the architect in a Christian manner, and explain that they had tackled a project beyond their means, and that he was right, after all, so would he please revise the drawings, and bring the thing down in size so as to fit their pocketbook. We hesitate to say which of the two courses they followed.

THE SIRENS AND THE POOL

I met a man who has the job of going round checking up on the new type of condenser which has recently been fitted to all the electrical sounding apparatus of the air-raid sirens. (A week ago, owing to unsatisfactory condensers, a number of sirens were incapable of sounding a warning.) A key man, you'd say, on a key job.

*

Yet he couldn't get authority to apply for more than the standard extra allowance of pool petrol to take him the long and somewhat necessary round his job involved. Not even from Scotland Yard.

*

Moral : There are none so wise as those who won't be warned.

ASTRAGAL

Defence measures and emergency legislation are now a very direct concern of the architect, who finds his information, in the main, in the new official literature, that must, in its abundance, be confusing. The INFORMATION CENTRE exists to clear the air for him, to function rather as an exchange, complementary to all existing organizations and superseding none, but as much a corollary to the new legislation as question time to an abstruse technical lecture.

A R C H I T E C T S ' J O U R N A L

E M E R G E N C Y

INFORMATION CENTRE

Questions of general interest are printed in these pages; personal ones are answered through the post.

If you have an A.R.P. problem which demands an expert answer.

If you want information regarding A.R.P. appliances.

If you have an A.R.P. problem which requires knowledge you have not got of official recommendations.

If you want information regarding MATERIALS.

If you want guidance in finding your way around the new Government Departments.

If you want the change of address of a firm or manufacturer.

Write to :—

THE ARCHITECTS' JOURNAL,
45 THE AVENUE,
CHEAM, SURREY.
VIGILANT 0087

or ring :

THE A.J. INFORMATION CENTRE
FLAXMAN 5322

The Information Centre itself is working from London, but enquiries sent direct to the JOURNAL *will be passed on without delay.*

These are typical of the questions we have already answered :

How are ventilated black-out window screens formed ?

How is sandbagging rotproofed ?

How much safer is a 20-ft. deep shelter than a semi-surface type ?

How is a light lock formed ?

How should screen walls be arranged ?

How is a basement shelter protected from bursting water mains ?

What is the definition of a light-proof material ?

What publications are there on farm buildings ?

What would be the maximum spread of debris if an h.e. bomb hit a 330-ft. stack ?

What publications are there on camouflage ?

What protection is needed for light shafts ?

What is adequate provision for a first aid and decontamination centre ?

Is a 1938 contract binding ?

Who is responsible for making good air-raid damage to unfixed materials ?

What is the cost per head of gas filtration ?

Q66 SWINDON.—*If the owner or occupier of a factory or commercial building has done nothing about providing an air raid shelter for his employees by September 30, what is his position with regard to the GRANT? Will he be completely debarred from the benefit of the Act?*

Yes. Unless he can show proof that he has taken steps towards at least having plans prepared, he will definitely get no grant, but will nevertheless be required to carry out the work.

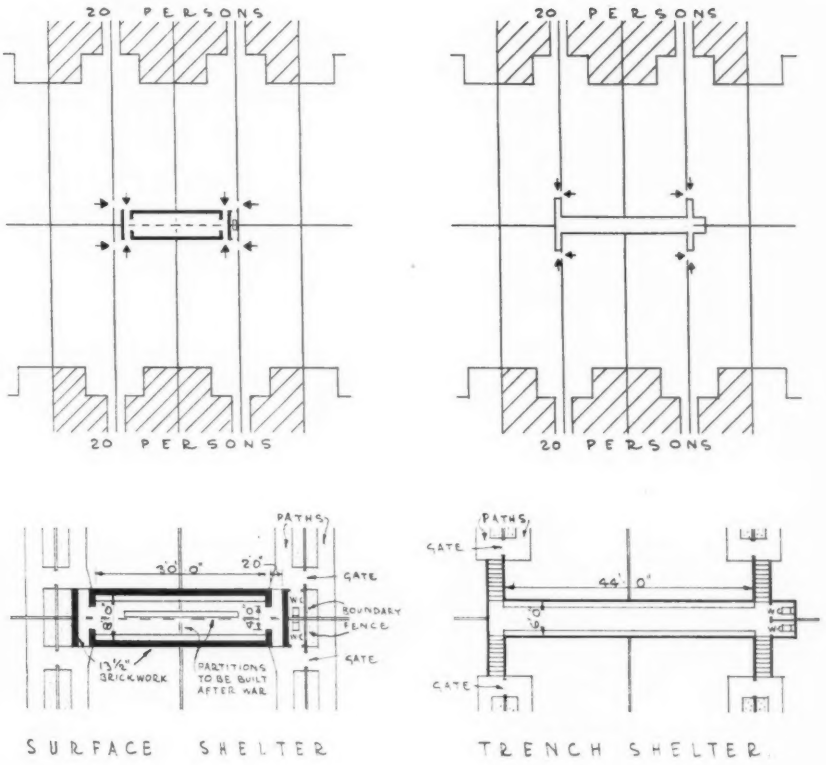
Q67 BIRMINGHAM.—*A client of mine is a vicar, who wishes to make arrangements for an air-raid shelter IN THE CRYPT of the church. The crypt seems to conform with practically all the requirements of the Air Raid Shelter Code, but he is doubtful about the church tower, which is of a considerable height, about 120 ft., and which, in plan, is only 10 ft. from the edge of the crypt. The Code gives warning against such towers. Is there any real danger in using the crypt?*

Well-built towers are not a source of considerable danger. Their resistance to bombs is much greater than that of ordinary walls, owing to the four walls of the tower acting together. Such towers may, of course, be brought down by the direct hit of a bomb, but the possibility of such a direct hit is no greater than that of a similar hit on the shelter itself, which is not usually taken into account. In most cases crypts are covered with a substantial layer of earth, and even if the tower collapses on the shelter, the earth would act as a buffer and reduce the possibility of damage. Crypts, if properly constructed originally, are reasonably good places for air-raid shelters, even with spires in the direct neighbourhood.

Q68 EALING.—*I have to design an underground shelter, size 6 ft. by 10 ft. by 7 ft. high, with brick sides and concrete floor and roof, waterproofed with Sika on the inside. The shelter is completely below ground and is ventilated with two Nautilus flues capable of being closed in the event of gas attack. My client is anxious that the structure shall be perfectly dry, and I shall be obliged if you will let me know whether you are aware of any method of limiting CONDENSATION. I understand that if the walls are lined with an*

insulating material the shelter will be uncomfortable if the ventilation openings have to be closed during a gas attack. The size given is for the habitable part of the shelter, and excludes gas-locks. The number of persons to be accommodated is six.

Many people are under the misapprehension that humidity is produced by condensation. Condensation is merely a transference of the humidity from the air to the surface of the walls, etc. It is the only means of making a sojourn in a shelter of limited dimensions bearable, as it reduces the humidity of the air in an unventilated shelter. This is the reason why the Code definitely forbids the lining of walls with any insulating material. The only possibility of keeping the structure as well as the air dry would be to provide artificial ventilation. Such ventilation requires two openings, one or both of which can be used as exits. Such ventilation would have to be amplified by air filtration plant if gas attacks are to be expected. The shelter you have in mind could, according to the regulations, be left closed without ventilation for three hours if there are not more than five people inside. For a larger number the shelter is not satisfactory once the openings are closed.



Q69 SOLIHULL.—*Can you please advise me of the ADDRESS of the "Bruderhof" society of craftsmen, who I believe operate somewhere in the Cotswolds?*

The address for which you ask is The Cotswold Bruderhof, Ashton Keynes, Gloucestershire.

Q70 FELTHAM.—*An estate owner has asked me to provide shelters for about 200 houses bordering on parallel streets and occupied by 800–1,000 people. There are no basements, and it seems a question of either TRENCHES OR SURFACE SHELTERS. What are the relative merits of the two types, and is it preferable to combine the shelters for several houses?*

Trench shelters usually give a higher degree of protection, but there are cases where they present difficulties in construction; e.g. if the ground is rocky, if the ground water level is near the surface, or if there are water-mains or other services on the site of the shelter. In deciding between individual and combined shelters it must be remembered that shelter entrances should be as near to the houses as possible, so that in the event of night raids there is no need for half-clad occupants to catch cold running through rain. On the other hand, to combine shelters is more economical, especially if it is intended to provide against gas, for it is scarcely possible to provide decontamination and ventilation for every small shelter. If gas is ignored, a reasonable compromise is to provide one shelter for six to eight houses, which is practicable if the rows of houses stand back to back (Fig. 1). Where gas proofing is considered, the number of houses served by each shelter can be increased to ten or twelve.

Q71 GOOLE.—*As an architectural student at present serving in the ranks, I was interested to read Astragal's contribution to your issue for October 5. The reference to the most suitable branch of military service is of immediate concern to me. I have recommendation for commissioned rank and am consequently desirous of information regarding the above matter. I should be indeed grateful if you could furnish source of the official announcement referred to in the note. Addresses of the R.E. and R.A. SURVEY SECTION, to which application should be made, would be most useful.*

The official announcement referred to by Astragal is the Revised Schedule of Reserved Occupations, published by H.M. Stationery Office, York House, Kingsway, London, W.C.2 (price 9d.). For full information regarding the R.E. and R.A. Survey Section, you should write to your Local Recruiting Centre, Metropole Building, West Street, Hull.

Q72 LONDON.—*Can you please recommend a chemical for spraying sandbags for the purpose of KILLING INSECTS, preventing germination of seeds and to destroy mildew? Whether the material preserves the sandbags or not does not matter; the essential point is one of hygiene.*

We understand that for killing insects, preventing germination and

destroying mildew in sandbags a good material is V.C. Sandspray, obtainable from Messrs. Vermin Control, Ltd., 17 Duncan Terrace, City Road, N.; Telephone: Terminus 3886. The cost of this spraying is approximately ¾d. per bag.

Q73 SMETHWICK.—*Clients of mine have asked whether I can suggest something to protect their property from damage and I have tried to study the question of danger to property caused by air attacks. I have collected a heap of literature, Government and other publications, and finally I have stumbled across Handbook No. 9. This Handbook contains a quite vivid description of what would happen if an enemy dropped INCENDIARY BOMBS on our towns and lets us realise the terrible consequences of what would happen if we are not sufficiently prepared to counteract the effects, but the means suggested to do this seem to be less than inadequate and no authority has yet put forward a definite request that something should be done. The Civil Defence Act does not even mention protection against incendiary bombs. The Handbook makes the safety of the property dependent on somebody being in the house during the attack. How am I to reconcile this with the fact that nobody should be in the house during an air attack, or, at least, only in the basement and out of reach of incendiary bombs? And what about all the houses which are empty because children and possibly women have been evacuated and men are at work or at war? I should be very grateful if you could give me an idea of the attitude I should take to this problem. Has the effect of incendiary bombs been exaggerated in the Handbook, or is it correctly set out, and have our authorities, architects and engineers just forgotten to deal with this problem?*

There is no doubt you are correct in assuming that a great problem has been neglected. The danger of incendiary bombs is hardly exaggerated in the Handbook. The reason why the authorities and technicians have spent so much more time trying to find measures to counteract the effects of high explosives can no doubt be explained by the fact that high explosives threaten our lives and health, whereas incendiary bombs threaten property, which on the face seems less important. Unfortunately, this point of view is not entirely correct, as the wholesale destruction of property must, of necessity, cause loss of life and health through the after effects, more so perhaps than direct attack by high explosives. The present distress in Warsaw bears this out. To protect property against incendiary bombs is much more expensive than to provide the degree of protection afforded by the Government's blast- and splinter-proof shelter policy. The time will come when blast- and splinter-proof shelters have been provided for the majority, and then it will be necessary to do something to protect houses against incendiary bombs. Something could, however, be done right away, and while the small cost of £2 per head would not give absolute protection to houses, it would reduce the danger considerably. It should be the duty of architects to draw the attention of the local authorities, surveyors, property owners and clients to this danger, which, although widely recognized, is never actively considered. After all, we all have a touch of the ostrich in our psychology.

Q74 HALIFAX.—*I am designing a basement shelter for offices where 700 are employed, and have in mind compartments each accommodating 50 to 70 people. There is plenty of space in the basement. I cannot find from the Code whether FIRST AID AND DECONTAMINATION CENTRES are required. Can you give me this information?*

A decontamination centre may be required later on if the authorities give warning that gas attacks are to be expected. For the time being all that is required is that any structural alterations necessary to make the shelter gas proof be done now, i.e. that all walls and all strutting needed for such a centre should be provided now, but accessory arrangements, e.g. doors, lavatories, hot and cold water installation equipment, etc., can be left out. In some cases decontamination centres are used provisionally as supplementary shelters, allowing the occupants more space than they may have eventually. First-aid centres are not mentioned in the Code, but it is acknowledged that where as many as 700 people are congregated accidents may occur even if the shelter is not in any way affected by a bomb. A first-aid room should be arranged near the entrance, where the decontamination rooms should, of course, be situated. Handbook 6 (obtainable from H.M.S.O., Kingsway, W.C. 2, price 6d.) gives quite reasonable dimensions for decontamination and first-aid rooms, which will in your case depend on whether the employees are all of one sex.

Q75 TOTTENHAM.—*What is the NEW ADDRESS of the Institute of Municipal and County Engineers?*

3 Branstone Road, Kew Gardens, Surrey. Telephone: Richmond 1576.

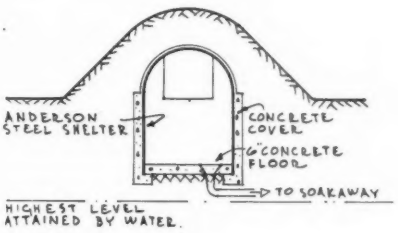
Q76 BIRKENHEAD.—*I am trying to ascertain the possibility of COMPLETING A HOUSING CONTRACT now in its early stages, but sufficiently large and advanced to make completion highly desirable to my clients. I have obtained a licence for most of the necessary timber, but excluding flooring boards. These would be laid on wood joists. Is there any alternative material over wood joists? The following materials are necessary to complete the work: Portland cement, shingle, sand, concrete paving flags, steel rods, bricks, hydraulic and fat limes, glazed stoneware pipes, etc., wire mesh fencing, galvanized wire, iron posts, roofing tiles and felt, manufactured joinery such as staircases and doors, ironmongery, patent plaster, white glazed tiles, sheet lead, iron rainwater pipes, etc., and gutters, lead pipe, brasswork, soil pipe, copper work and copper tube, glass, distemper, paint, electrician's materials. Which of these are under the Controls you have published, or are likely to be controlled or very difficult to obtain? No doubt inquiries should be made to individual manufacturers and merchants, but I shall be glad of advice in general terms.*

You should be able to get a licence for floor boards as well as other timber. You might as an alternative use a reinforcing lath like Hy-rib over a layer of building paper. If a cement slurry is run over the lath it will be caught by the building paper and form a cover to the underside of the reinforcing. 1½ in. by 2 in. of concrete over this will give a good floor. Other materials you mention are, generally speaking, obtainable in

the usual way through merchants, who must get their permits (where permits are needed) from the various control authorities. This they will do, not to be able to fulfil the order, but so that they can replace their stocks. Your contractor will need a permit for the purchase of cement, shingle, sand and concrete paving flags, from Cement Control, Ministry of Supplies, and for all iron and steel, from Iron and Steel Control, Ministry of Supplies. Both controls are at Steel House, Tothill Street, London, S.W.1. In the case of iron and steel, H.M. Stationery Office publish Statutory Rules and Orders (1939), No. 1272, listing all controlled articles. The Manchester address of H.M. Stationery Office is 26 York Street, where a copy can be had for 2½d. post free. Copper, lead, zinc and tin are controlled by the Non-ferrous Metals Control, Grand Hotel, 46 Albert Street, Rugby. You will, of course, understand there is bound to be some delay in obtaining materials, and we would advise you to see that the contractor places his orders some time before he needs the materials, and if possible actually gets the stuff on the job. This applies particularly to iron and steel, and to cement, sand and shingle. We know of a number of cases of jobs like yours going ahead in spite of emergency conditions and control.

Q77 ELTHAM.—*My Anderson shelter is, like those of my neighbours, FULL OF WATER. The earth floor of the shelter is 4 ft. below ground, and the shelter has about 3 ft. of water in it. The house drain is not deep enough for me to drain the shelter into it, so I intend to concrete the floor and sides of the shelter up to ground level. Is it reasonable to expect, if I do this, that the shelter will be waterproof? Can you suggest proportions for the concrete mix, how thick the floor and wall should be, and whether the concrete needs some additional waterproofing?*

The answer to this question depends on whether the water in the shelter is temporary and due to the heavy rain, or whether the ground water level rises at times to a level above the floor of the Anderson shelter. In the first case it would be reasonable to make the floor of waterproof concrete, with the same material on the outside of the shelter up to the ground level (Fig. 2). It would be better still if hardcore could be laid under the floor. The concrete floor should be 6 in.



2

thick, mixed 1 cement, 2 sand, 4 aggregate, with a well-graded aggregate and sand, and should be laid dry, i.e. when placed the concrete should be plastic but not liquid.

If the ground water level is higher at times than the floor of the shelter, concrete will be of little use, as the water exerts a pressure and would either penetrate the floor or lift up the whole shelter. In this case it is suggested to raise the shelter so that the floor is above the ground water level. If this is impossible, an Anderson shelter is unsuitable. The floor must not be under the ground water level.

Q78 CHESTER.—*As you are no doubt aware a matter which is receiving considerable attention at the moment is the PRESERVATION OF SANDBAGS, chiefly those which are already filled and built up. Remedies such as spraying the bags with creosote, bituminous emulsions and various proprietary materials are being advocated, and I should be obliged if you can give any advice and information on the application and efficiency of such materials. Some of the proprietary materials advertised would appear to be rather costly.*

If sandbags are already filled and in position, one of the best preservatives is creosote, which can be sprayed on. This also prevents the growth of vegetation and attack by vermin. It is better than cement wash, because while cement seals defects in the bags, it tends to rot the fibres. Among the proprietary materials that are, we believe, effective, are Ganderbak, a product of Bituminous Compositions, Ltd., Railway Street, Grimsby, Lincoln; T.D. sandbag preservative, made by Lewis Berger, and Sons, Ltd., Homerton, E.9.; Szerelmey, which can be applied by brush or spray, a product of Szerelmey, 277 Rotherhithe New Road, S.E.16, and Cuprinol, a product of Cuprinol Sandbag Proofing Department Jenson House, Stratford, London, E.15. The general opinion is that it is better to buy rot-proofed bags than to treat ordinary ones. Rot-proofing costs about 1d. per bag. For indoor sandbagging V.C. Sandspray is made for preventing germination of seeds, destroying mildew and killing insects, and is obtainable from Vermin Control, Ltd., 17 Duncan Terrace, City Road, London, N., and costs approximately ¾d. per bag.

Q79 NEWCASTLE.—*We are busy blacking out large glass roofs over factories belonging to clients, and are successfully using various methods including painting, blinds, wood shutters, etc., but we are wondering whether our clients are legally bound to do anything further to counteract moon reflection, and if so, what?*

This is not a question of obscuring lights, but of camouflage. If a horizontal window reflects moonlight, this in itself cannot reveal the existence of a building to an approaching enemy as the moonlight may be reflected in the same way by a river or pond. But if the glass of a skylight is at an angle, a wary pilot may deduce the presence of a building, because the reflection of the light would reach him from an entirely different angle from that he would expect if the light were reflected from a natural horizontal surface. From a purely legal point of view, the decision whether a building is to be camouflaged rests with the Government, according to the wording of Section 45 of the Civil Defence Act. "The Minister may serve on the occupier of any factory premises, the owner of any mine or any public utility undertakers a notice in writing requiring him or them within the time specified in the notice, to take or complete such measures as may be specified in the notice to secure that the factory premises, the mine or, as the case may be, any of the premises of the undertakers, are or can be made less readily recognizable by aircraft in the event of hostile attack." This section infers that the means of camouflage have to be suggested by the Ministry. The problem may become serious even with domestic buildings, as one or more rows of houses with moonlit skylights placed in identical positions may easily

draw the attention of an enemy. There is no law at present giving authorities the right to enforce camouflage of such lights.

REFERENCE BACK

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

Q52

re SANDBAG ROTPROOFING

Messrs. Lewis Berger and Sons (Homerton, London, E.9) write :—

SIR,—We refer you to question No. Q. 52, Hull, in THE ARCHITECTS' JOURNAL Emergency Information Centre and would like to bring to your notice our T.D. Sandbag Preservative which has recently been placed on the market. You are probably aware that the Ministry of Home Security's recommendation for the preservation of sandbags is to place a waterproof cover of bituminous felt under the top layer of sandbags, draining the ground at the base, so that the pile does not stand in water, and to apply a creosote, tar distillate or a solution of organic copper salt in creosote to the exposed face of the pile.

The material which we have produced complies with the official recommendation, and is also an efficient insecticide and fungicide. We recommend that the sandbags should be thoroughly impregnated with the Preservative, which can be applied by spray or brush, either whilst the sandbags are dry or wet.

We estimate that it should be possible to treat 30 sq. yds. efficiently with one gallon of T.D. Preservative for about 2s. 9d. for materials only, depending on the amount purchased.

Whilst we are bringing this material to the notice of architects and local government authorities, perhaps you would be kind enough to advise any of your correspondents who enquire for information on this subject that we are in a position to supply a suitable material.

A.R.P. Correspondence

SIR,—The experience of Edinburgh is sufficient proof that the danger of air raids is by no means removed. Should they occur, the nature and extent of war damage will have to be assessed at a later date.

The making of such assessments would be greatly helped if plans of the buildings before damage were available, particularly if such drawings gave constructional details. Records of most newer buildings are already in the hands of owners, architects, or local authorities, but records of older buildings can seldom be found.

In such cases owners would be well advised to instruct their architects to make surveys accurate enough to show plans, sections and elevations of the buildings before damage. Elevations might be photographed, but the plans and sections should be measured and drawn.

E. STANLEY HALL,
President, R.I.B.A.

Architectural Front

R.I.B.A.

Following have been appointed to serve as the War Executive Council: E. Stanley Hall (President), W. H. Ansell, L. Sylvester Sullivan, Hubert Lidbetter and Charles G. Soutar; with following Members of the Council: C. F. Bates, T. A. Darcy Braddell, A. C. Bunch, R. A. Duncan, Professor W. G. Holford, A. H. Moberley, Norval R. Paxton, C. G. Stillman and with (vice-presidents), Edward Maufe and Howard Robertson. It is not proposed that the Committee shall meet on fixed dates but as often as is necessary and possible.

MARS

Meeting decided that Group should support the A.A. scheme for emergency war work. Some members may prefer to join A.A. Groups as individuals but those who prefer to collaborate with other MARS members should send in names immediately with suggestions as to the organization and leadership of such Groups to 8 Lower Mall, W.6.

ROYAL SANITARY INSTITUTE

Resumption of examinations on restricted scale; particulars from 90 Buckingham Palace Road, Westminster, London, S.W.1.

L.C.C. CENTRAL SCHOOL OF ARTS AND CRAFTS

Reopening on Monday, November 6. Classes in architecture which include design, drawing, construction, mechanics, history and professional practice to be held in evenings.

HOUSING CENTRE

Series of Bulletins just issued by the Housing Centre. Purpose of Bulletins: To inform general public of emergency provisions as they affect landlords, householders and tenants.

Price of each Bulletin is 3d. (3½d. post free) from the Centre.

*Change of Address**

LOBB, HOWARD VICARS
19 The Butts, Brentford, Middlesex. (Ealing 2491.)

ROWSE, HERBERT J.
Chapel House, Puddington, Wirral, Cheshire. (Burton 223.)

NORRIS, J. H., & Co.
Guildford Office: 57 Quarry Street. (Telephone as before—Guildford 40.)

* A full list of changes of address was published in THE ARCHITECTS' JOURNAL for October 19, 1939.

Building Front

Present condition of building industry described in current issue of BUILDING INDUSTRIES SURVEY.

Effect on building industries of outbreak of war in short run has been disruptive, with general closing down of much building activity and acceleration of military and civil defence works. From this sudden action industry may well have suffered in geographical dislocation and hampering of normal work. In the long run, main effect is likely to be an intensification of the pre-war tendencies. It is known that there will be much building work for military and civil defence purposes, and that there is vital need to keep the industry from disintegration, since it represents the only trained body of men capable of dealing with demolition caused by air raids, of repairing damaged property and of providing structural defence. Imponderables of the future position are important, but many of them turn on decisions of public policy. At present there appears to be a blanket restriction of capital investment activities of local authorities, while private activity is discouraged. Every reason why, as soon as civil defence programmes are completed and their staffs thus released, local authorities in reception areas should be allowed to resume their programmes and private investment should be encouraged by an official scheme of war-risks insurance, though much will depend on the premium. Outstanding need for the prosecution of war is to increase production and to build up the national income and yield of taxation while bringing our war potential speedily and smoothly to its maximum. In this the building industry, which must in any case be kept together, has a great part to play. Favourable and early decisions on housing policy in reception areas and on war risks insurance would materially assist the national effort.

ART METAL CONSTRUCTION.— No change of address. Fireproof steel equipment now much in demand in commercial offices, etc.; orders being met without delay.

BRITISH PLASTER BOARD. — Favourable test has been made by Building Research Station on Thistle anti-fire Gypsum coating for A.R.P. and general fireproofing of all timber and woodwork. "When exposed to action of 1-kilo inc. bomb under certain standard conditions, coating affords degree of protection of timber slightly superior to that given by two coats of standard silicate paint." Roof timber average house covered for cost in material of about ten shillings.

KELVINATOR. — Refrigeration is recognised as essential element in national defence; food storage, A.R.P. first aid posts, blood storage under transfusion scheme, etc. Normal business not interrupted by Government work. Prices raised 10 per cent., as generally in refrigerator industry.

WALPAMUR CO.—Able to supply sixteen Walpamur paint products for A.R.P., camouflage, black-out and fire protection. Hope property owners will not neglect maintenance painting.

CHARLES WINN.—Busy meeting specialized sanitary appliance demands of various defence forces.

ZINC DEVELOPMENT ASSOCIATION.—Carrying on as many of their normal activities as possible; Association's technical service will be continued. Copies of Association's publications still remain available, free of charge. In addition to normal technical services, pleased to give relevant advice and information on official procedure and regulations concerning supply and use of zinc during war period.

Change of Address

GOODMAN PRICE, LTD.
96 Gt. South West Road, Hounslow, Middlesex. (Hounslow 3231/2.)

ZINC DEVELOPMENT ASSOCIATION
Lincoln Buildings, 15 Turl Street, Oxford. (Oxford 47988.)

PHILIP SCHOLBERG

on

Equipment

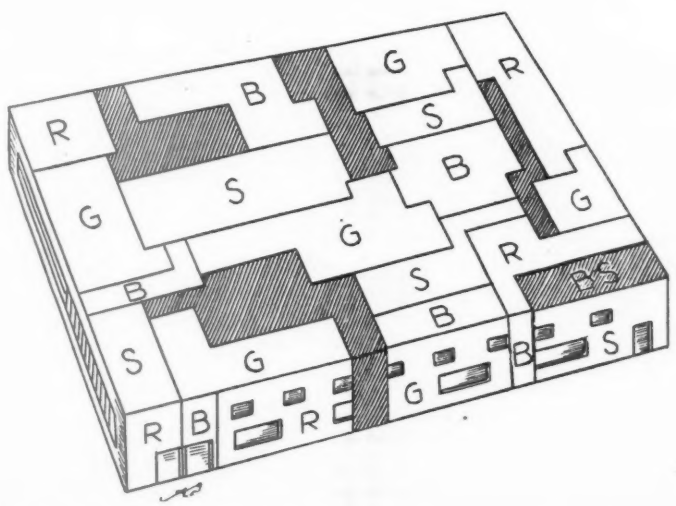
Notes on Camouflage

From the Silicate Paint Company, the manufacturers of Duresco, comes a fattish folder of notes on the necessary characteristics for a proper CAMOUFLAGE PAINT, with an outline of the various principles underlying an effective camouflage scheme. One of the first essentials, of course, is that the paint should be durable, and here Duresco has certain advantages, for there are in existence sundry examples which have lasted since the last war, an exceptional result which I do not suppose the manufacturers would be prepared to guarantee nowadays, but one which at least goes to show that Duresco, modified slightly for camouflage purposes, is liable to last pretty well. The firm also runs a consultative service for the preparation of appropriate schemes, and shows various examples of both the imitative and disruptive methods of approach. The sample shown on this page is of a factory on an urban site to which have been applied both imitative and disruptive patterns, the shapes being typical of house tops, shadows and irregular patches of grass and ground. The principle underlying all designs is that the country is seen from the air as a pattern, and that anything which is out of keeping with the pattern invites attention. The distinguishing feature of a factory as seen from the air is generally the large unbroken expanse of roof. The sketch shows how this large area has been broken up into forms which resemble other innocuous forms in the locality. It must be stressed that certain assumptions have been made in the example shown and that the scheme is by no means universally applicable, any more than the standardized house plan should be slapped down regardless of site conditions. The rest of the folder contains details of the consultative service maintained by the manufacturers, and methods of application and covering powers of the paints, which are known, by the way, as Charlton special camouflage paints, and which are a modification of the Duresco formula.—(*The Silicate Paint Company, Charlton, London, S.E.7.*)

Insulation of Timber Buildings

Various hutments now being erected for service and civil accommodation are being insulated with Euphon GLASS SILK QUILT. In any building in which a minimum of "heavy" material is used some form of insulation is necessary, and this quilting is easily handled and not only insulates but also forms a draught-proof lining if the timber of the structure should move slightly under climatic changes.

The quilt is made up of glass fibres spread to a thickness of about ½ in., covered with kraft paper and stitched to form a strong and durable mat. The glass fibres are incombustible, an important point with timber buildings, nor do they offer sustenance to vermin. The material weighs very little and is supplied in rolls 27 yds. long and 1 yd. wide.—(*Glass Fibres, Ltd., of Firhill, Glasgow.*)



Sketch illustrating imitative and disruptive patterns on a factory in a town. R: red tiles; S: slates; G: grass; B: buff ground; BS: black shadows.

As a result of the necessity of economising paper in war-time, newsagents will shortly be unable to keep a stock of journals and periodicals for casual sale. If you wish to make sure of receiving your copy of this JOURNAL *in future, you should either place a definite order with your newsagent or subscribe direct to*

THE PUBLISHER, 45 THE AVENUE, CHEAM.

Annual subscription rates £1 3s. 10d. inland; £1 8s. abroad.

LETTERS

Proposed Atelier

SIR,—I am pleased to be able to say that as a result of the letter from me which you published on the above matter a very gratifying response has been received.

It has been decided to hold a preliminary meeting of all those interested at the Building Centre on Saturday, November 11, at noon.

A letter to this effect has been sent to all those who have written me, but I should be grateful if you would kindly make it known to your readers that anyone, whether they have written or not, would be welcome at the meeting.

F. R. YERBURY

158 New Bond Street,
W.1.

Our War Service

SIR,—I heartily endorse the sentiments of Astragal contained in the paragraphs written under the above heading, particularly that calling for a big combined push by all sections of the building industry to urge the Government to relieve the present stranglehold.

Those of us who were born just in time for the last war, passed into the world as qualified men in the middle of the Grand Slump of a few years ago, and now, after getting going at last, are faced with the present situation, and beginning to wonder just what sort of management we are under.

We are only too willing to make all necessary sacrifices to help the nation through these difficult times, but the essential continuance of our normal useful functions must be recognized by Authority if these sacrifices are to have any lasting value. At the moment no evidence of such recognition is apparent. It is left to us, therefore, to draw Authority's attention to our present conditions in no uncertain manner. As Astragal points out, the only way to do this successfully is to do it *en bloc*.

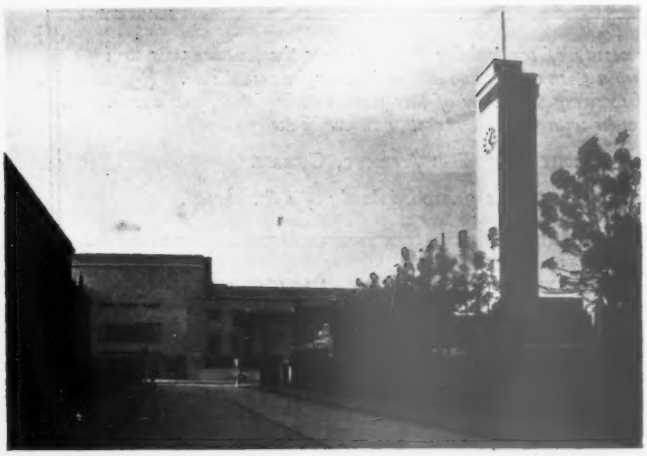
J. LEWIS WOMERSLEY

Rainford, Lancs.

APPOINTMENTS

Mr. C. Max. Lock, A.R.I.B.A., fourth-year unit master at the Architectural Association School of Architecture, has been appointed head of the School of Architecture of the Hull College of Arts and Crafts.

Mr. H. T. Jackson, F.R.I.B.A., A.M.I.STRUCT.E., has been appointed head of the building trades department at the Technical College, Blackpool.



GREENWICH TOWN H

DESIGNED BY CULPIN A

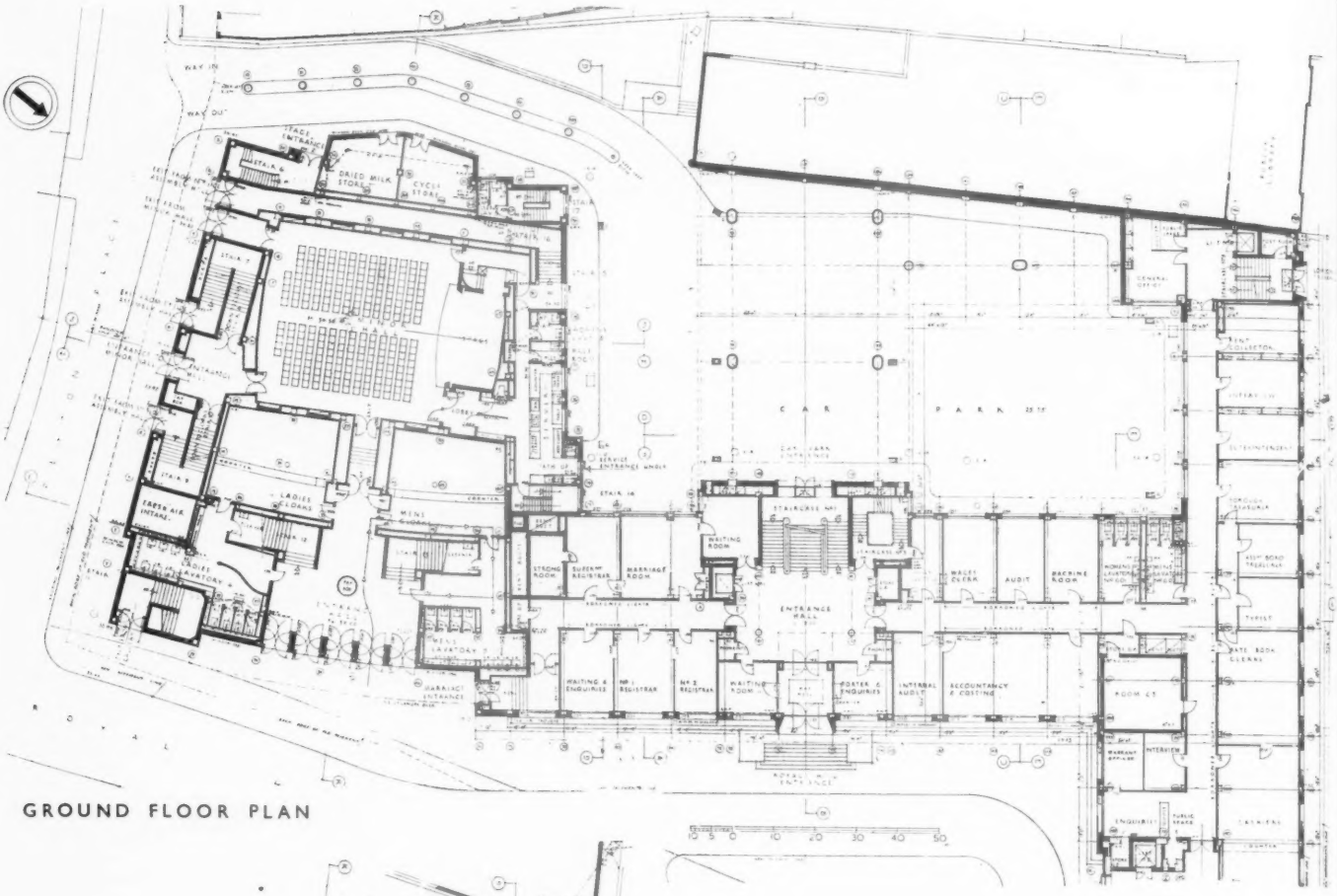
GENERAL VIEW FROM NORTH-EAST. BELOW, VIEW FROM THE SOUTH-EAST LOOKING TOWARDS THE ENTRANCE TO THE LARGE AND SMALL HALLS AND THE TOWER.

HALL
AND SON

ABOVE : SOUTH FRONT. LEFT : VIEWS FROM THE SOUTH-EAST (TOP) AND NORTH-WEST.

CONSTRUCTION AND EXTERNAL FINISHES—*Office block and civic suite : reinforced concrete construction throughout, including the tower. Large hall : steel framed. Whole of office block is constructed to take an extra storey. External 13½-in. brick walls lined throughout with 3-in. slabs as additional insulation and to provide space for all pipes—heating, drainage, etc. To avoid obstructions in the car park below the council chamber has four large reinforced concrete columns which pass through room ; remainder cantilevered out. Tower is 165 ft. high ; clock is turquoise blue faience figures with inset fluorescent tubes, blue-green. Tower and elevations are faced with orange hand-made bricks laid throughout to a special bond giving vertical lines of headers. Plinth is in grey Cornish granite, above which are continuous flower boxes with removable linings.*

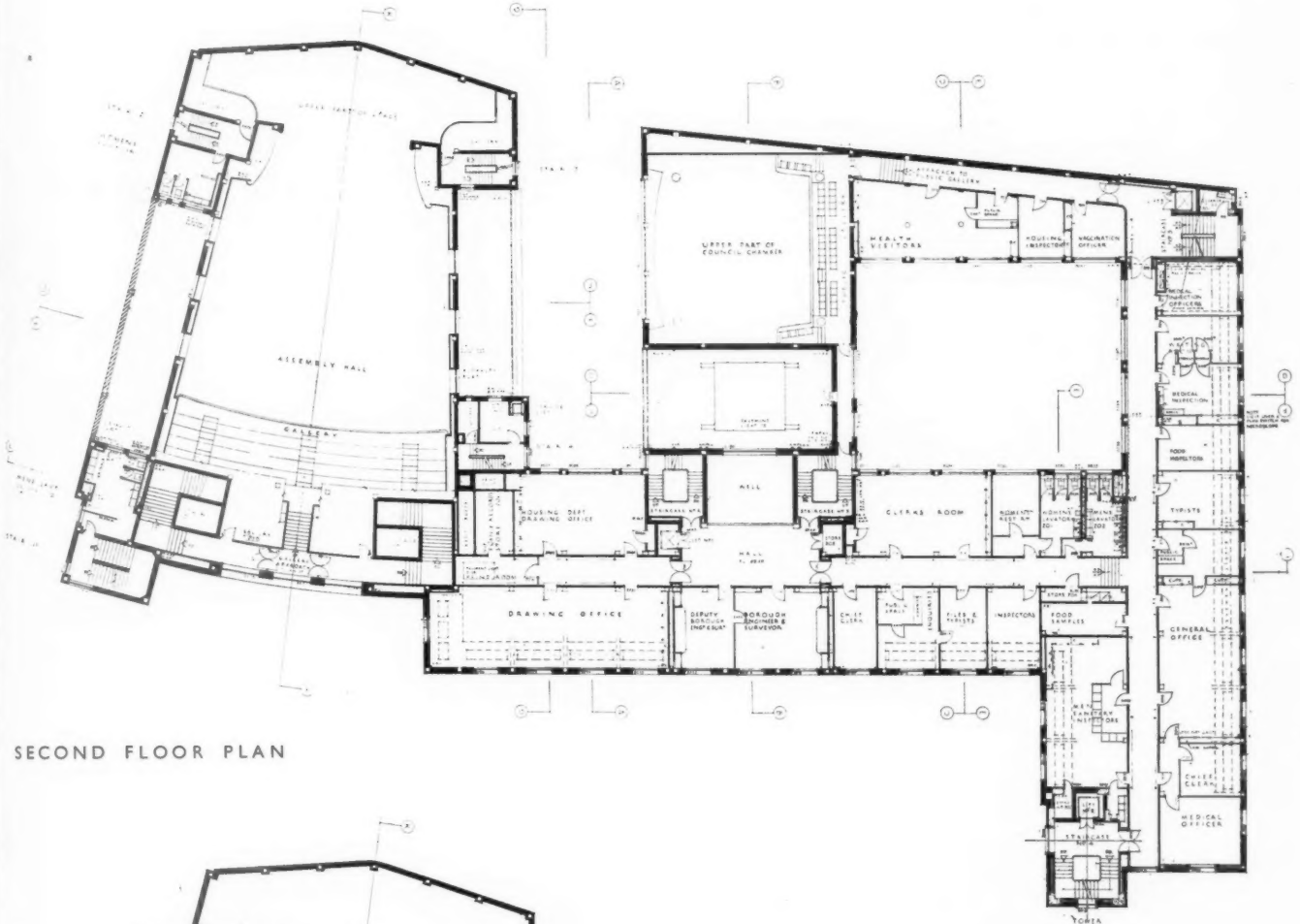
The piers of the ground-floor windows have teapot glazed bricquettes; cills, cast lead ; stone, Portland ; mosaic soffite of the tower entrance is in ceramic cubes designed by Suddaby and Fryer.



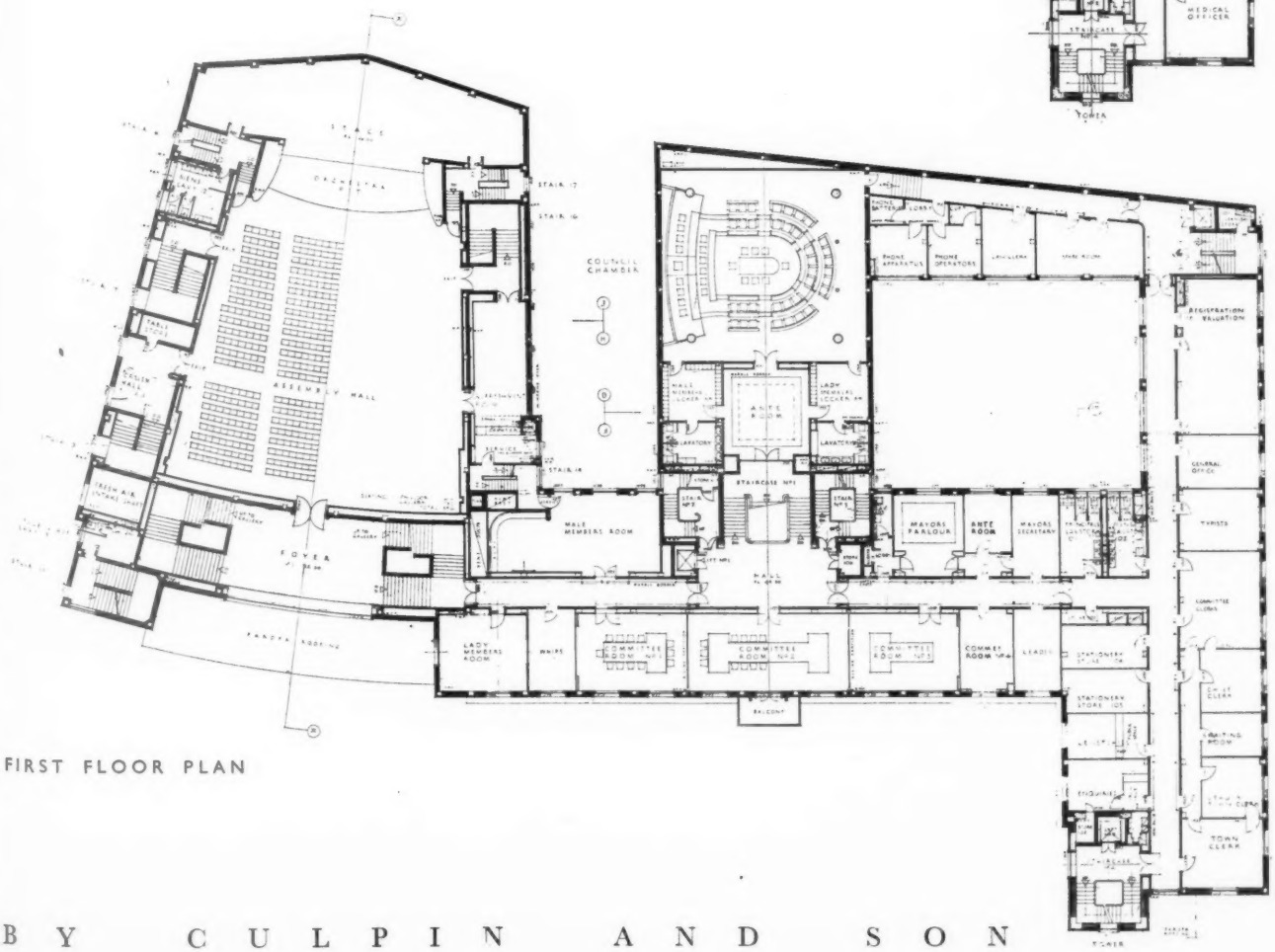
GROUND FLOOR PLAN

BASEMENT PLAN

GREENWICH TOWN HALL

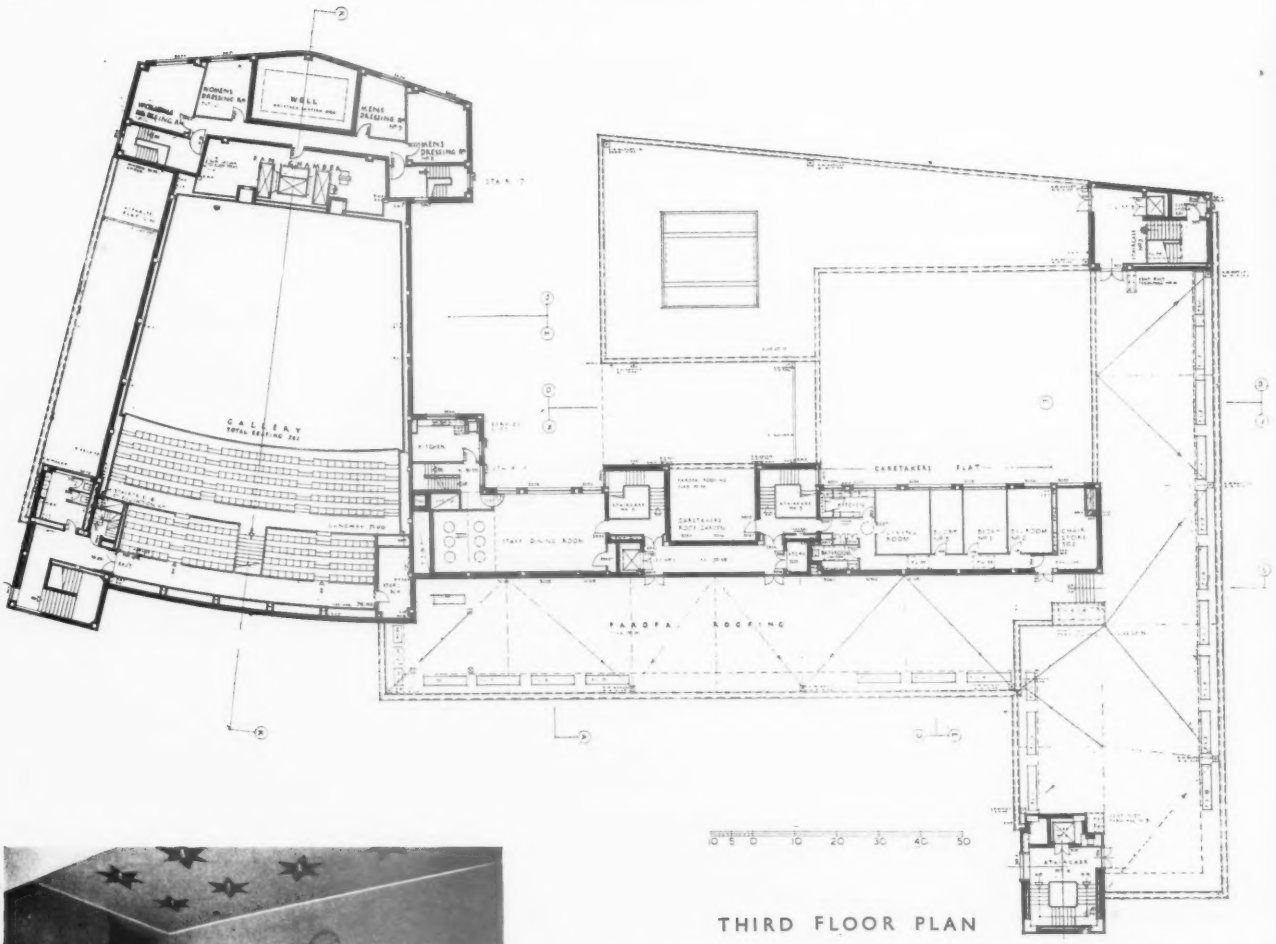


SECOND FLOOR PLAN



FIRST FLOOR PLAN

BY CULPIN AND SON

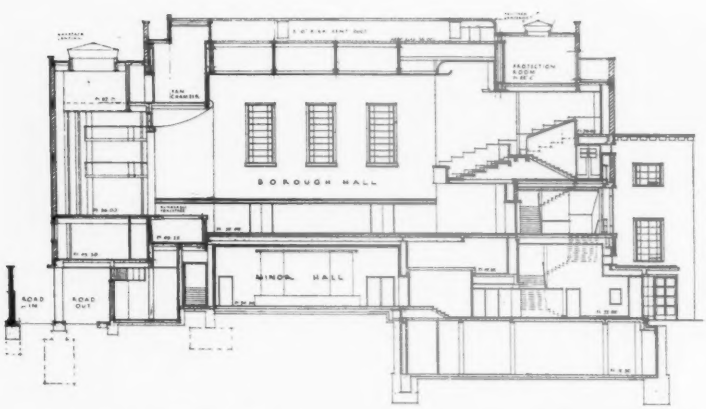


THIRD FLOOR PLAN

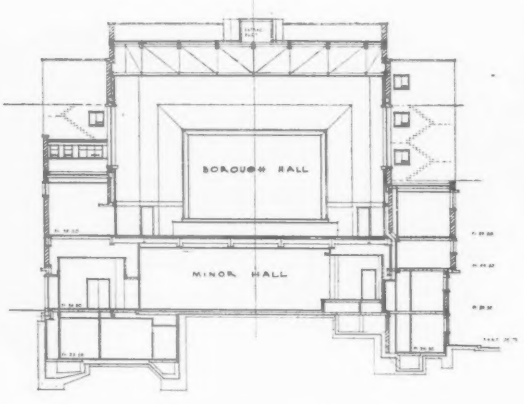
ENTRANCE TO LARGE AND SMALL HALLS

PLAN—*Assembly Hall Block: to provide easy circulation, large hall (Borough Hall) is on first floor. Public enter large hall, pass pay box, go through cloakrooms and out through lavatories and up stairs, each side, to Borough Hall, following same direction throughout. Seating: Main floor, 534; gallery, 239; total, 773. Uses of hall: Meetings, plays, concerts, dances, cinematograph and exhibitions. Minor hall has separate entrance and cloakrooms, but is linked to the main hall for use as supper room. Seating: 250 persons. Ceremonial entrance is provided from civic suite to staircase.*

INTERNAL FINISHES—*All stairs and ground-floor corridors: terrazzo of special colours. Other corridors, oak block floors. All offices, beech block floors, built-in cupboards, built-in accordion type blinds. All doors flush.*

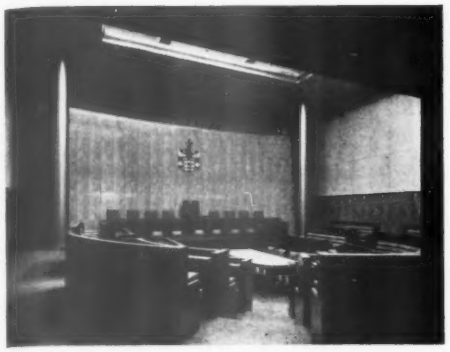


SECTION K-K



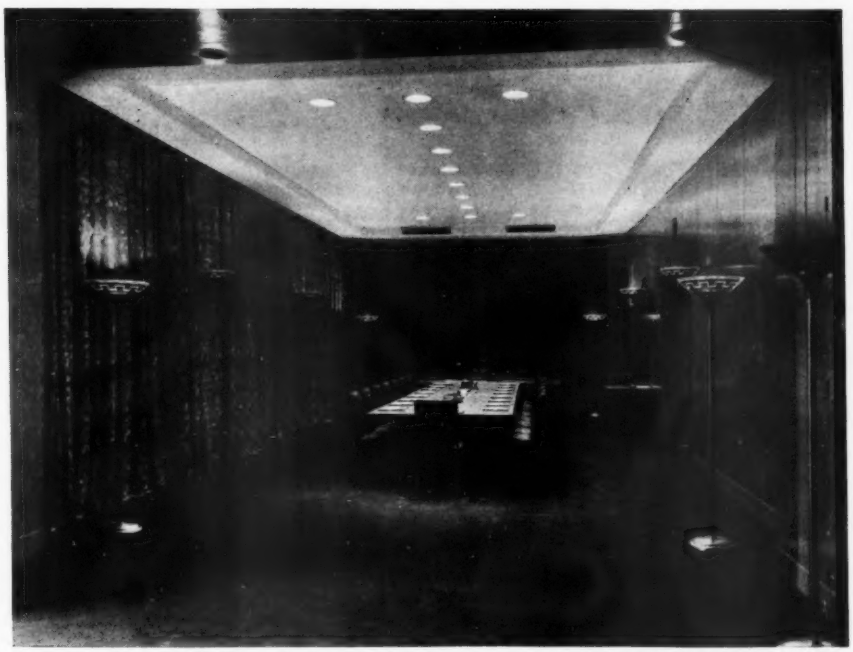
SECTION J-J

GREENWICH TOWN HALL • DESIGNED



INTERNAL FINISHES (continued)—*Civic entrance hall and principal stairs: Walls, travertine, with moulded vertical joints; floor, golden travertine; architraves, column casings, handrailing and doors, manganese bronze; window, filled decorative glass representing constellations, designed by Suddaby and Fryer. Ante-room: Panelled English elm with teak floor, marble surround. Council chamber: structural columns, gilt lacquer; flush panelling, weathered sycamore dado; walls above dado, natural fibre-board, V-jointed; fittings, English walnut, seats covered Indian red morocco. Committee rooms 1, 2 and 3: (by means of hydraulically operated rising partitions, the three rooms can be thrown into one for receptions, etc.): Floor, carpeted, blackberry colour; walls, burr-oak in squares; window wall, curtained throughout, blue-green, oyster and dull mauve; furniture, figured teak with dull mauve leather; lighting, louvred down lighting on to tables, indirect lighting from torchères and brackets.*

LEFT (TOP TO BOTTOM): COUNCIL CHAMBER; MAYOR'S PARLOUR; BOROUGH ENGINEER'S OFFICE; STAIRCASE LANDING.



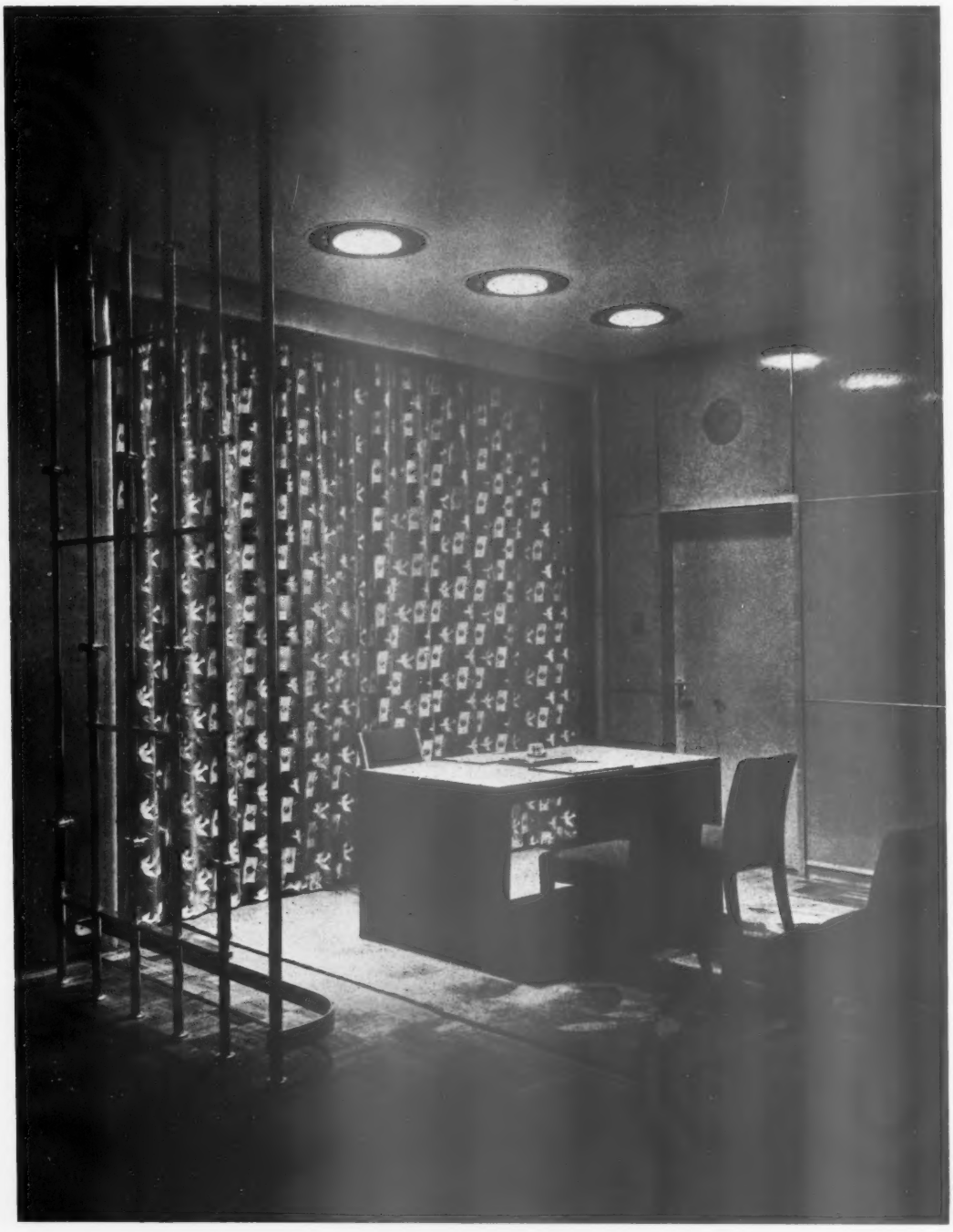
ABOVE, MALE MEMBERS' ROOM AND COMMITTEE ROOM

B Y C U L P I N A N D S O N

LANDING AND ENTRANCE TO BOROUGH HALL

INTERNAL FINISHES (continued)—*Mayor's parlour: carpet, blue-green; curtains, off-white, red, gold, etc.; panelling, figured teak; furniture, Indian laurel with English yew inset lines. Male members' room: Floor, teak blocks, basket pattern, with specially designed rugs; walls, covered paper-mounted Australian walnut veneer; furniture, built-in carved seat, etc., in Australian walnut and green morocco. Marriage room: Floor, teak blocks with specially designed rugs; walls, panelled in bird's-eye maple in squares with aluminium dividing strips. Marriage recess: Formed with decorative silver-bronze grille, curtained at back with curtains of off-white, lime green and mauve—curtains and recess flooded with light from louvre fittings; furniture, English cherry and mauve woollen material. Lady members' room: Floor, carpeted warm blue; walls, covered paper-mounted light mahogany veneer; furniture, rosewood, dull purple material and pink morocco; curtains, containing*

GREENWICH TOWN HALL:



MARRIAGE ROOM

colours of all the other materials. Entrance hall to Borough Hall : Floor, terrazzo in special shades ; walls, cement glaze ; features, Travertine having pinkish-brown markings ; metalwork, silver bronze ; ceiling, blue with recessed silver stars. Foyer (first floor) : Finishes as entrance hall. Main feature large curved window from floor to ceiling with rich curtains. Borough Hall : Floor, maple, on semi-sprung sound-proof construction, dark-brown carpet when seats are used ; walls, dado of Australian walnut ; above, flat painted pricked muslin over acoustic felt ; air grilles, etc., inlets through continuous grilles in high copper content bronze of natural colour—extracts through combined louvred light and vent fittings in ceiling ; proscenium feature, panelled in figured birch ; proscenium curtains specially woven pinky-red ; stage, large stage complete with full stage lighting and draperies ; orchestra pit, covered removable apron stage for concert work, dance bands, etc. ; seating—in gallery, fixed ; on main floor, nesting tubular tip-up seats—all seating in blocks of dull green, dull yellow and pinky-red ; windows, six large windows have silver-sprayed metal venetian blinds remotely controlled, and flood-lighted ; equipment, public address system ; hall wired for future cinematographs, projector room, etc., provided. Minor Hall : Dado, solid English oak moulded planks ; stage, small stage with nigger-brown proscenium curtains with loom-tufted designs representing astronomical instruments ; furnishing, nesting chairs in dull yellow and peacock blue when used as hall ; tables, chairs, etc., when used for banquets.

SERVICES—*Entire building air-conditioned and heated by ceiling panels.*

COST—*£221,000.*

General contractors were William Moss and Son, Ltd. For list of sub-contractors, see page 556.

L : DESIGNED BY CULPIN AND SON

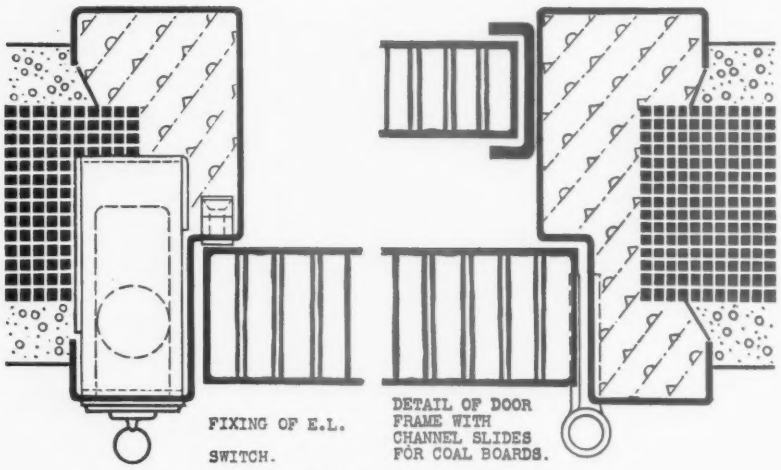
LORDS HALL

TRADE NOTES

[*By PHILIP SCHOLBERG*]

Pressed Steel Door Frames

ON almost any large job pressed steel door frames are so widely used that there is hardly any point in recapitulating their advantages here. Sensibly arranged details, however, are always worth looking at, and a recent Morris Singer leaflet has some typical arrangements which seem as though they would be useful in practice. Two examples are shown on page 556. The one on the right shows a doorway to a coal store in which channel sections are welded to the inner half of the frame to take shifting boards. It may, incidentally, be remarked that a coal store is a most suitable place for a steel frame even if they are not used in the rest of the house, for the coal shed not only has to survive fairly rough treatment by servants, but from those who deliver the coal as well. The other detail shows an electric light switch incorporated in the frame, an idea which makes for neatness and also means that the switch is far more easily found by strangers. Is it too much to suggest, while we are on the subject of



Details of pressed steel doors

switches, that there should be some generally accepted convention for switch positions? How often does one come into a dark room and stroke the wallpaper for hours before finding the right place? And when you are faced with switches grouped under a single cover plate how often is it possible to tell which does what without trying everything? The fault quite obviously does not lie with the switch manufacturers but with the local electricians, who seem to have no imagination whatsoever.

Other sections not reproduced here show typical frames for walls and partitions of different thicknesses. All frames are made from 16-gauge steel finished with one coat of rust-proofing paint. Corners are electrically welded, and two canvas reinforced rubber buffers are fitted in the rebate on the lock side. Three fixing lugs are provided in each jamb, corrugated and adjustable for height, while the ties across the floor of the frame are $\frac{5}{16}$ in. square section.—(*The Morris Singer Company, Ferry Lane Works, Forest Road, Walthamstow, London, E.17.*)

R.I.B.A.

Notes from the minutes of Council meeting, October 9, 1939

War Executive Committee. A War Executive Committee was appointed to act on behalf of the Council. The War Executive Committee consists of the members of the present Executive Committee with the addition of Mr. Edward Maufe and Mr. Howard Robertson (Vice-Presidents). Mr. Thos. E. Scott has also been invited to attend the meetings of the War Executive Committee. The Council will meet again in January unless circumstances make it necessary to call a meeting at an earlier date.

Appointments : Government Committees. Ministry of Labour—Central Register Advisory Council : Mr. Thos. E. Scott. Architecture and Public Utilities Committee of the Central Register Advisory Council : Mr. Thos. E. Scott, who is Chairman of the Committee ; Deputy, Mr. L. Sylvester Sullivan ; The President ; and Mr. C. D. Spragg (Assistant Secretary). Home Office — Professional Advisory Committee (Shelters) : Mr. W. H. Ansell. Home Office—Building Trades Advisory Committee on A.R.P. : Mr. Thos. E. Scott. Home Office—Constructional Trades Civil Defence Committee : Mr. Geoffrey C. Wilson. Treasury—War Damage to Property : Advisory Committee on the Principles of Assessment of Damage : The President. *Architects Registration Council :* Mr. R. A. Duncan and Mr. H. M. Fletcher. *Council of the British School at Rome :* Professor A. B. Knapp-Fisher. *Royal Sanitary Institute and Sanitary Inspectors Examination Joint Board :* Mr. P. V. Burnett. *Heating and Domestic Engineers National Apprenticeship Council :* Mr. W. F. B. Lovett. *Joint Committee of Representatives of the R.I.B.A. and the Institute of Builders (R.I.B.A. Representatives) :* Mr. H. S. Goodhart-Rendel, Mr. Howard Robertson and Mr. H. M. Fletcher.

Prizes and Studentships :

R.I.B.A. Archibald Dawnay Scholarships

The Board of Architectural Education reported that drawings and note-books had been received from 22 candidates and that Scholarships had been awarded as follows :

(1) An R.I.B.A. Archibald Dawnay Scholarship of £50 for the year 1939–40 to Mr. D. C. Williams, of the Welsh School of Architecture, Cardiff ; (2) an R.I.B.A. Archibald Dawnay Scholarship of £50 for the year 1939–40 to Mr. R. J. Naismith, of the School of Architecture, Edinburgh College of Art ; (3) an R.I.B.A. Archibald Dawnay Scholarship of £50 for the year 1939–40 to Mr. Francis Murray, of the School of Architecture, Edinburgh College of Art.

Second Years of Scholarships

The Board reported that it had renewed the Scholarships of the following scholars for a second and final year, i.e. 1939–40 :

(1) Mr. T. E. Fennell, of the School of Architecture, King's College, Newcastle-on-Tyne, who was awarded an R.I.B.A. Archibald Dawnay Scholarship of £50 for the year 1938–39 ; (2) Mr. J. R. M. Poole, of the Regent Street Polytechnic School of Architecture, who was awarded an R.I.B.A. Archibald Dawnay Scholarship of £50 for the year 1938–39.

Last Instalments of Second Year Scholarship Monies

The Board reported that, after consideration of the work submitted, it had approved the payment of the last instalments of their second-year Scholarship monies to :

(1) Mr. N. B. Dant, of the Regent Street Polytechnic School of Architecture ; (2) Mr. G. F. Horsfall, of the Liverpool School of Architecture ; (3) Mr. R. D. Hammett, of the Architectural Association School of Architecture.

The Tite Prize : a Certificate and £50

The Board reported that 227 candidates took part in the Preliminary Competition and that 17 had been admitted.

The Board further reported that in the Final Competition designs had been submitted under various mottoes from 16 candidates. On the recommendation of the Board it was decided that the Tite Prize be not awarded.

Reinstatements. Following ex-members were reinstated : As Fellow, Mr. James Smith ; as Associate, Mr. Percy Lingwood ; as Licentiate, Mr. William Herbert Alton ; as retired Licentiate, Mr. Henry Sulley.

Resignations. The following resignations were accepted with regret : Messrs. Edmund Frazer Tomlins (F), Robert Alec Eggleston (A), (Miss) Ruth Hillyard Matthews (A), (Miss) Edyth Meikle (A), Edward Kennor (L), Alfred Doig Nicoll (L), and John Henry Taylor (L).

Transfer to the Retired Members Class

The following members were transferred to the Retired Members Class :

As Retired Fellows : Sir Felix Clay and Messrs. Ernest Gunson, Arnold Mitchell, Cecil Alexander Sharp, Thomas Tyrwhitt, Percival Bown. As Retired Associate : Mr. William Henry Romaine-Walker. As Retired Licentiates : Messrs. Herbert Ogden and Ernest John Wallis.

THE BUILDINGS ILLUSTRATED

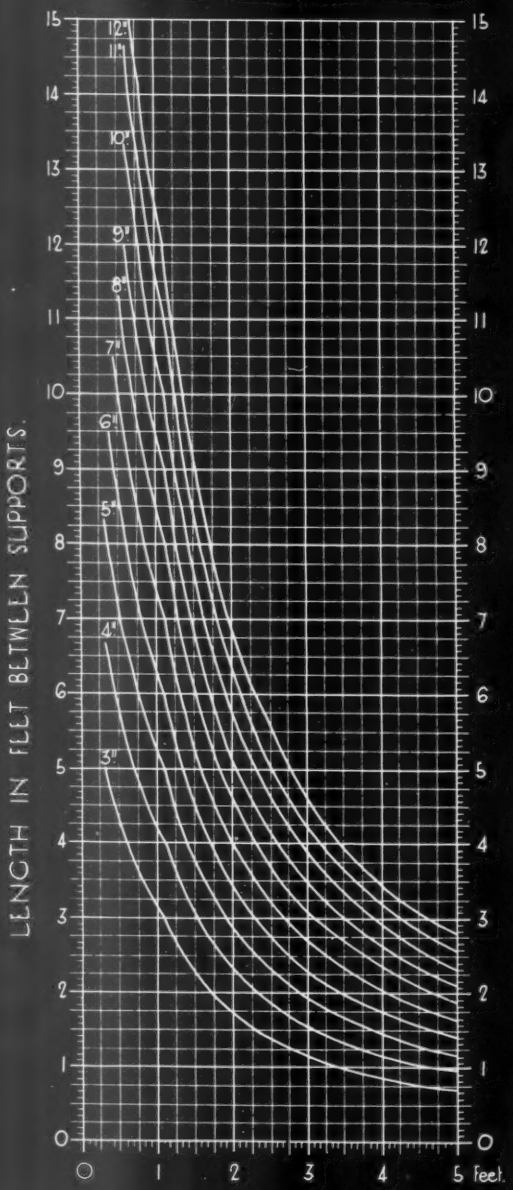
GREENWICH TOWN HALL (pages 548-555). Architects : Culpin and Son. Quantity Surveyors : Harris and Porter. Consulting Structural Engineers : R. T. James and Partners. Consulting Heating and Ventilation Engineers : J. Roger Preston and Partners. Consulting Electrical Engineer : D. Winton Thorpe, in association with Waldo Maitland. Acoustical Consultant : Hope Bagenal. General Contractors : William Moss and Sons, Ltd. Subcontractors and suppliers included the following : Engert and Rolfe, Ltd., asphalt ; James Gibbons, Ltd., bronze balcony rails ; Robert Y. Ames, Ightham Brick and Tile Co., Ltd., and Sussex Brick Co., Ltd., bricks ; J. Starkie Gardner, Ltd., bronze doors ; Modern Surfaces, Ltd., cement glaze ; E. J. and A. T. Bradford, Ltd., foundation stone ; John Bellamy, Ltd., fuel hoppers ; Shaws Glazed Brick Co., Ltd., faience ; Haggis, Ltd., flush doors ; Pilkington Bros., Ltd., and London Sand Blast Decorative Glass Works, Ltd., glass ; Fenning & Co., Ltd., granite ; Haskins, grilles ; Garton & Thorne, Ltd., handrailing, laylight, etc., and ironmongery ; S. W. Farmer and Son, Ltd., iron stairs ; Waygood-Otis, Ltd., lifts ; J. W. Gray and Son, lightning conductors ; Lamson Engineering Co., Ltd., letter chute ; Haywards, Ltd., lantern lights ; Carter & Co. (London), Ltd., mosaic ; Merryweather and Sons, Ltd., moving partitions ; J. Whitehead and Sons, Ltd., marble work ; Bath and Portland Stone Firms, Ltd., Portland stone ; John P. White and Sons, Ltd., and J. L. Green and Vardy, Ltd., panelling ; Lenscrete, Ltd., pavement lights ; Adamsez, Ltd., sanitary fittings ; Horace W. Cullum & Co., Ltd., sound-proof construction etc. ; Moreland Hayne & Co., Ltd., steelwork ; Diespeker & Co., Ltd., terrazzo ; C. E. Welstead, Ltd., windows ; Horsley Smith & Co., Ltd., wood block floors.

THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

GRAPHS SHOWING LENGTHS AND SPACING OF MERCHANTABLE DOUGLAS FIR (1200 LB. f. TIMBER.)

Superimposed loading 100 lbs per square foot in accordance with LCC. Byelaws, applicable to corridors and landings.

GRAPH FOR FULL SIZE TIMBER.

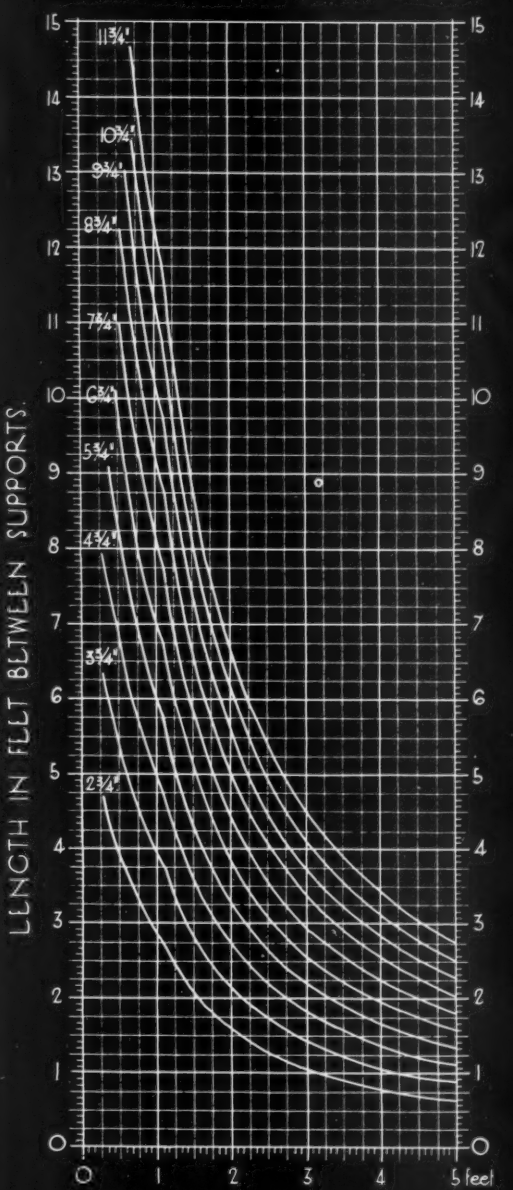


CLEAR SPACING IN FEET PER INCH OF THICKNESS.

For method of using graph see back of this Sheet

Superimposed loading 100 lbs per square foot in accordance with L.C.C. Byelaws, applicable to corridors and landings.

GRAPH FOR S.4.S. ¼" SCANT TIMBER.



CLEAR SPACING IN FEET PER INCH OF ACTUAL THICKNESS.

For method of using graph see back of this Sheet

Information from The British Columbia Timber Commissioner.

Compiled by Alfred H. Barnes, F.R.I.B.A., M.I. Struct. E.

INFORMATION SHEET : TIMBER 2 : THE CALCULATION OF GRADED TIMBERS FOR CORRIDORS AND LANDINGS.

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

THE ARCHITECTS' JOURNAL
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INFORMATION SHEET

• 767 •

CARPENTRY AND JOINERY

Subject : The calculation of graded timbers for corridors and landings.

General :

This is the second of a series of Sheets dealing with the graphical calculation of timber sizes and spacing for various types of construction.

This Sheet deals with timbers for corridor and landing floor construction, the graphs being calculated on a basis of 100 lbs. per sq. ft. superimposed loading.

The size of timbers depends upon four factors, any of which can be found given the other three.

These factors are :

(*a*) Length.
(*b*) Thickness or breadth.
(*c*) Depth or width.
(*d*) Spacing.

EXAMPLES (Bridging joists supported on binders)

(a) *To find the length—given thickness, depth, and spacing.*

A corridor is 4 ft. 6 in. wide. It is proposed to form the floor with 4¾ in. by 1¾ in. (5 in. by 2 in. scant), bridging joists running longitudinally supported on binders, and spaced 14 in. apart in the clear. Required the length of the joists—i.e., the clear spacing of the binders.

The spacing per inch thickness is 14 ÷ 1¾ = 8 in.

Referring to the graph for scant sizes, it is seen that the curve for 4¾ in. timbers intersects a vertical line indicating 8 in. spacing per in. of thickness at about the 6 ft. 0 in. length. The permissible clear length of the joists (and consequently the spacing of the binders) is therefore 6 ft. 0 in.

(b) *To find the thickness (or breadth)—given the length, depth and spacing.*

Assuming that the depth of the binder is to be a full 6 in., what is its thickness ?

The length is 4 ft. 6 in., and the spacing has been ascertained to be 6 ft. 0 in. The graph for full size timbers shows the spacing of a 6 in. timber 4 ft. 6 in. long to be 1 ft. 6 in. per inch of thickness. 6 ft. 0 in. ÷ 18 in. = 4.

The required thickness or breadth is therefore 4 in.

(c) *To find the depth—given the length, thickness and spacing.*

It is proposed to run the bridging joists *across* the corridor to dispense with the binders. Assuming 1¾ in. thick joists are again to be used at 14 in. clear spacing, what should be their depth ?

It has already been ascertained that 14 in. spacing of joists 1¾ in. thick = 8 in. of spacing per inch of thickness.

The nearest scant size curve (on the safe side) to the intersection of the 4 ft. 6 in. length with a vertical line indicating spacing of 8 in. per inch of breadth, is that of the 3¾ in. timber. (Incidentally the 3¾ in. curve shows a safe spacing of 9 in. per inch of thickness, which gives a clear spacing of 15¾ in.).

(d) *To find the spacing—given the length, breadth, and depth.*

What would be the spacing of 4 in. by 2 in. (full size) joists, where used in the 4 ft. 6 in. direction ?

The graph for full size timbers shows for 4 in. timbers, of 4 ft. 6 in. length, a spacing of 10 in. (full) per inch of thickness. For timbers 2 in. thick, the spacing would therefore be 1 ft. 8 in.

Grading Rules for "Grade 1,200 lb.F." Timber :

The following Grading Rules for "grade 1,200 lb.f."* timber are quoted from the *by-laws made by the London County Council in pursuance of the London Building Act (Amendment) Act, 1935, for the use of timber in the construction and conversion of buildings*, which came into force in 1938 and to which reference should be made for the full text.

The number of annual rings per inch shall be ascertained in the following manner :—

The measurement shall be made at each end of the piece on a measuring line 3 in. long in the direction of the radius of the rings.

In the case of a boxed-heart piece, the measuring line shall extend over grain which is representative of a fair average of the section. When in such a piece the least dimension is 6 in. or less, the line shall begin at and extend from a point at a distance of 1 in. from the pith. Where in such a piece the least dimension exceeds 6 in., the measuring line shall begin at, and extend outwards from, a point at a distance from the pith equal to one-quarter the least dimension of the piece.

In the case of a piece without pith, the centre of the measuring line shall be at the centre of the end of the piece.

The width of a knot shall be ascertained in the following manner :—

The knot shall be measured on that face of the piece in which the area of the knot is greater.

The width shall be taken as the average of its greatest diameter and its least diameter, except that where a knot occurs on the angle of a piece, the width of such knot shall be taken as the distance of such angle (measured on the adjacent face or faces) from the most remote part of such knot.

Every piece shall be sound and free from defects except as specified in this schedule and shall be of such grain as not to have less than four annual rings to the inch and shall be free from spiral or diagonal grain having an inclination to the direction of the length exceeding one-in-ten except when such spiral or diagonal grain is so disposed as not to impair the strength of the piece.

Knots shall be sound and free from rot.

A tight knot shall not exceed in diameter one-fourth the greater transverse dimension of the piece unless so situated as not to impair the strength of the piece. In addition to the foregoing where such knot is enclosed within the thickness of the piece its width shall not exceed one-third the thickness of the piece.

A loose knot or knot-hole shall not exceed in width one-half the greatest width permitted in the case of a tight knot unless so situated as not to impair the strength of the piece. A knot cluster or a knot-hole cluster shall be measured as a single unit.

Pitch pockets shall not exceed 8 in. in length nor shall they exceed ⅛ in. in width.

Sapwood shall be not more than slightly discoloured.

The depth of torn grain shall not exceed $\frac{1}{16}$ in.

The length of an end split shall not exceed the width of the piece. If there be more than one split in the same end then the sum of their lengths shall not exceed the width of the piece.

Checks shall not be such as to impair materially the strength of the piece.

Wane, if on one angle of a piece not exceeding 4 in. in thickness, shall not exceed ⅓ in. in width by one-third the length of the piece, and if on more than one angle the total width and the total area shall not exceed that amount. Wane, if on one angle of a piece exceeding 4 in. in thickness, shall not exceed in width one-eighth of the thickness of the piece nor in length one-third of the length of the piece, and if on more than one angle, the total width shall not exceed one-eighth of the thickness of the piece and the total area shall not exceed that of one-eighth of the thickness by one-third of the length of the piece.

The graphs published in this and the previous sheet, No. 760, are compiled by Alfred H. Barnes, F.R.I.B.A., M.I.Struct.E., and are the copyright of the author.

Previous Sheets :

The first sheet of this series, No. 760, deals with the graphical calculation of timber sizes and spacing for domestic floor construction.

Issued by : The British Columbia Timber Commissioner

Address : 1 Regent Street, London, S.W.1

Telephone : Whitehall 1814

* *DOUGLAS FIR*

Merchantable grade Douglas Fir complies with the above specification. The graph for S.4.S. timber applies to material surfaced on four sides to a size ¼ in. in each dimension less than the nominal size.

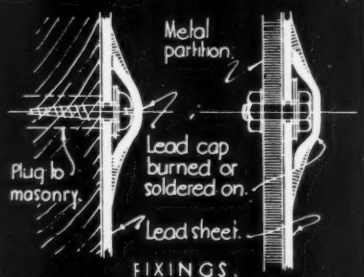
THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

METHODS OF FIXING AND JOINTING SHEET LEAD INSULATION AGAINST X-RAYS :

(A) UNCOVERED LEAD SHEET FACING.

KEY ELEVATION.

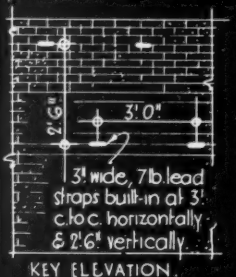
Max. sheet size depends on weight which can be handled.



FIXINGS.

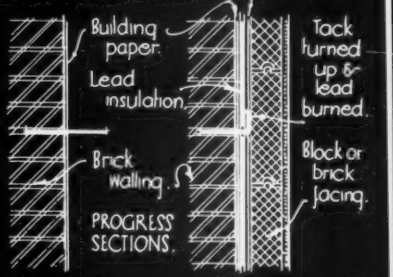
1. Round head wood screw with washer. 2. Bolt fixing to sheet-metal partn.

(B) COVERED LEAD SHEET INSULATION.



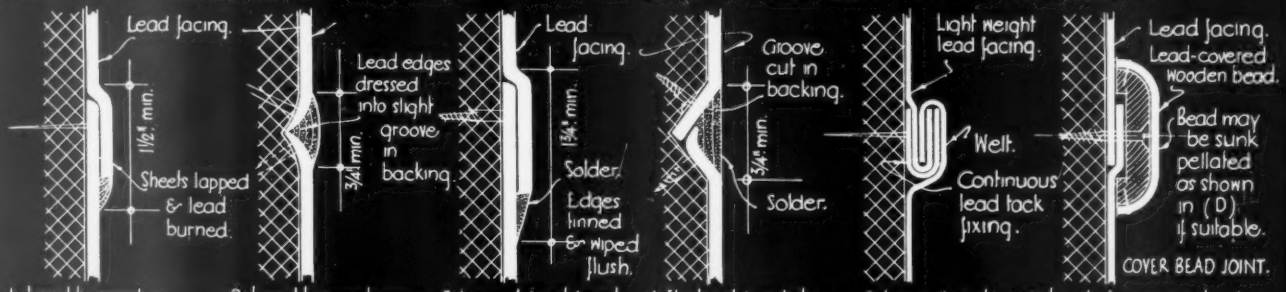
KEY ELEVATION.

Straps bitumen-coated & set 4½" in brickwork.



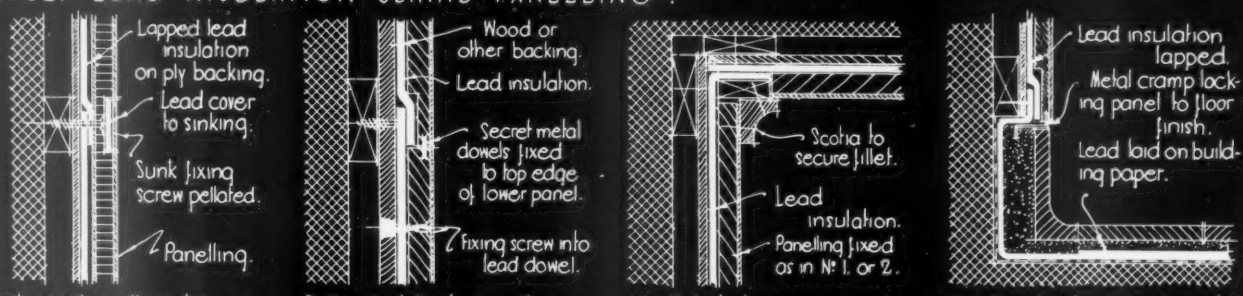
The lead straps pierce the 1st layer of waterproof building paper & the lead insulation.

(C.) TYPES OF HORIZONTAL & VERTICAL JOINTS IN UNCOVERED LEAD SHEET FACINGS :



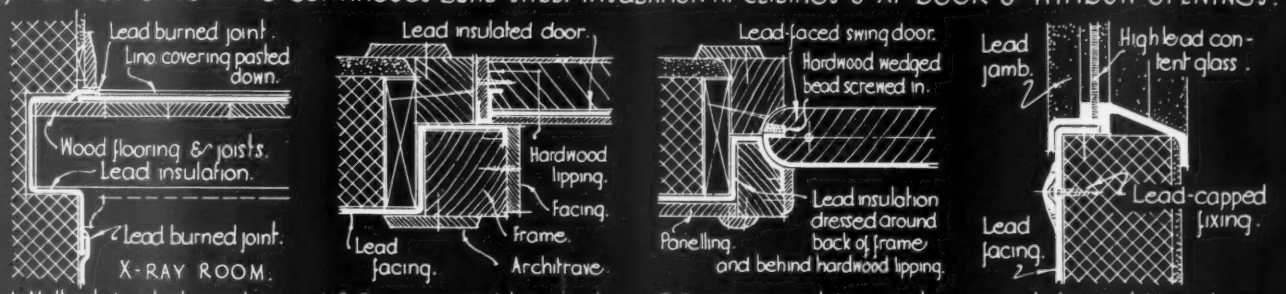
1. Lead burned, as used on sheet metal. 2. Lead burned, semi-flush joint. 3. Lapped & soldered, as used on sheet metal. 4. Flush soldered, where backing can be grooved. 5. Lap weld joint, not flush. 6. Lap to be used only when bead fixings can be lead covered.

(D) SHEET LEAD INSULATION BEHIND PANELLING :



1. Flush panelling with sunk fixing screws lead covered & pellated. 2. Dowelled flush panelling rebated for lapped leadwork. 3. Detail at cornice and ceiling, flush panelling. 4. Treatment of lead sheet insulation at skirting and floor.

(E). METHODS OF FORMING CONTINUOUS LEAD SHEET INSULATION AT CEILINGS & AT DOOR & WINDOW OPENINGS :



1. Method of protecting ceiling by laying lead on floor above. 2. Two-piece insulated wood frame on wood grounds. 3. Two-piece insulated wood frame for swing doors. 4. Detail of cast lead observation window frame.

Information from Lead Industries Development Council.

INFORMATION SHEET : SHEET LEAD PROTECTION AGAINST X-RAYS : Nº 59.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1.

THE ARCHITECTS' JOURNAL
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INFORMATION SHEET

• 768 •

X-RAYS

Subject : Sheet lead protection against X-Rays.

General :

This Sheet deals with the methods of fixing sheet lead for X-Ray protection, and is to be substituted for the two previous Sheets Nos. 182 and 472 on the subject already issued in this series. As conditions of each job vary, it is only possible to show the fundamental methods of fixing, and these should be adapted according to circumstances.

Reason for Use of Lead :

Lead is the standard of protection to which all others are compared, and is the only material which can be used in relatively thin layers. This makes it essential for doors and portable partitions. The degree of protection required is usually quoted in terms of thickness of lead in m/ms. The following table gives the nearest equivalent commercial sheet thicknesses in pounds per foot super.

Weight in Lbs. per Sq. Ft.	Fraction to nearest 64th	Decimal Thickness Ins.	Metric Equivalent mm.	Imperial Standard Wire Gauge, nearest
2½	3/64—	0.042	1.07	19
3	3/64+	0.051	1.30	18
3½	1/16—	0.059	1.50	17
4	1/16+	0.068	1.73	16
4½	5/64—	0.076	1.93	15
5	5/64+	0.085	2.16	14
6	7/64—	0.101	2.57	12
7	1/8 —	0.118	3.00	11
8	9/64—	0.135	3.43	10
10	11/64—	0.169	4.29	7

Degree of Protection :

The degree of protection required depends upon the nature of the plant installed and the material in this Sheet is not intended to suggest that any particular weight of lead will be applicable in any one case.

Information on the necessary protection can be obtained from the makers of the plant or the radiologist in charge. Plant used for therapeutic purposes is usually of high power and in continuous use. The highest degree of protection will therefore be necessary, and absolute continuity of the lead or other protection is generally insisted upon. Edges of sheets must be lead burned together or lapped and clamped. No perforation is permitted. This necessitates considerable ingenuity on fixings adjoining doors and windows and around locks.

Plant used solely for diagnosis is not operated for any length of time and a similar degree of protection is less necessary. Occasional fixing screws are sometimes allowed to perforate the lead and full protection may not be necessary between the room and, for instance, an adjoining corridor where there is no likelihood of persons standing or working continuously.

Full protection is, however, still necessary when the adjoining room is used for developing, for office purposes or as a ward or in other continuous occupation. Floors, walls and ceilings must be protected equally except a ground floor with no basement beneath and the ceiling of a top floor with no usable space above.

It should be remembered that while the rays travel in straight lines, as does light, they are reflected from surfaces on which they impinge, and so must be treated as though they were not directional. For the highest degree of protection, it is a useful guide to consider the problem as being one of retaining a gas under slight pressure and capable of passing through all but a limited number of materials of adequate thickness.

Where lead is bedded in contact with fresh cement or lime mortar there is a risk of corrosion unless a protective coating of bitumen is applied, or contact prevented by the insertion of a layer of stout building paper.

Fixing :

Adequate fixing is essential to ensure reasonable life owing to the creep characteristics of lead. Where fixed on face as in Detail "A," support must be at 1 ft. 6 in. centre to centre each way, and this is constant for all weights of sheet. Where lead sheet is retained between two layers of wood or other material as in Detail "D," and to a lesser extent in Detail "B," the facing and backing must be stiff enough to resist buckling and so allowing the lead to bulge, and they must be clamped or otherwise firmly held in contact all over the lead. Where the sheet lead has to be perforated to provide fixing, the head of the fixing screw or bolt must be covered with sheet lead of the same weight as the general protection in order to prevent ready leakage through the iron or other metal of the fixing. The cap is lead burned all round as in Detail "A," or wiped, in which case the lead of the capping piece must be dressed in close contact with the main sheet, as solder has a lower resistance.

Detail "B."—This method of fixing is common in chemical practice, but the embedded fixing strap must be previously coated with bitumen to prevent risk of corrosion due to contact with fresh Portland cement or lime mortar. The strap is lead burned on all edges after the sheet is erected.

Jointing.—Detail "C" shows cross sections of the various types of joint, all of which can be used vertically or horizontally. The use of a cover mould in lead-sheathed wood as in Detail "C" 6 is most suitable for fixing under ceilings. Again, it is necessary to fix the sheet up to the ceiling structure at 1 ft. 6 in. centre to centre maximum in both directions. It is, however, simpler to protect ceilings by laying the lead on the floor above, and conveying the wall sheet up to this level, there making a joint. The wall lead must be dressed round the ends of any joists.

Doors and Frames :

These present considerable variation, and are difficult to treat successfully. The lead in the moving part should be brought to the face so as to obtain the nearest approach to a metal to metal contact when the moving part is in the closed position. The lead on the fixed part should lap well over this to form a shield at least to the passage of primary rays. Generally speaking, the fixed frame must be made in two units with the lead between. Lead is inconvenient on the exposed face of the work, and the fixing of architraves is then difficult and necessitates the use of pellated screws driven into lead plugs in the frame. Where facings have to be fixed over lead and the fixings must perforate the sheet, three methods of preventing leakage are used : (*a*) A sheet lead cap is provided as in Detail "A." (*b*) A lead plug of ample size can be used where the backing is of wood, sound stone or fine concrete, and this will substitute the plug shown in Detail "A." The screw must be surrounded with lead of at least the same thickness as that of the general protection. (c) The screw may be well countersunk and a large diameter lead pellate inserted to shield the head, but this will allow escape of indirect radiation.

Inspection Windows :

These are formed of high lead content glass in heavy lead cames.

Door Handles :

Where high protection is required, key holes are screened with lead-backed escutcheon plates and the spindle is masked with an antimonial lead rose and handle.

Issued by : Lead Industries Development Council

Address : Rex House, 38 King William Street, London, E.C.4

Telephone : Mansion House 2855

PRICES

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

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

Prices vary according to quality and the quantity ordered.

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

ON the following pages appear Prices of Materials—Part I, with the prices, last published on September 28, brought up to date.

WAR NOTE.—Prices generally are subject to war clauses stated on quotations and contracts.

The cost of delivery will be effected by petrol rationing, though to what extent is not very evident.

Attention is drawn to the prices of mild steel rods and timber, which do not include delivery. These prices are maximum prices, controlled by the Government.

PART 1

★ *The previous complete Supplement is contained in the issues of the* JOURNAL *for Sept. 28, October 5, October 19, and October 26.*

CURRENT MARKET PRICES OF MATERIALS—I

BY DAVIS AND BELFIELD

CONCRETOR

Cements

All delivered in paper bags (20 to the ton) free and non-returnable.

		4 Tons and over	In 80-ton freights F.A.S. Safe Wharf in River Thames, London Area.
Portland	per ton	41/–	38/6
Rapid hardening	per ton	47/–	44/6
Water repellent	per ton	71/–	—
Atlas White (1 barrel 376 lbs.)			per barrel 44/–

	1 ton upwards	10 tons and over
Colorcrete rapid hardening, Buff and red per ton	68/–	—

	1 ton lots	
Colorcrete Rapid hardening khaki	per ton	89/– 69/–
Colorcrete Rapid hardening blue	per ton	112/– 102/–
Colorcrete non rapid hardening	per ton	from 139/– to 309/–
Snowcrete	per ton	and upwards 175/–

	1–10 cwts.	11–15 cwts.	16–20 cwts.	1 ton and upwards
Ciment Fondu, delivered Central London area per cwt.	7/9	7/3	6/–	6/–

Aggregate and Sands (Full Loads)

• 2″ Unscreened ballast	per yard cube	6/9
• ½″ (Down) Washed, crushed and graded shingle	per yard cube	7/–
• ½″ (Down) Ditto	per yard cube	8/–
• 2″ Broken brick	per yard cube	10/9
¾″ Ditto	per yard cube	11/9
• Washed pan breeze	per yard cube	5/6
Coke breeze 1″ to dust	per yard cube	12/6
• $\frac{1}{16}$″ Sharp washed sand	per yard cube	8/9
White Silver Sand for white cement (one ton lots)	per ton	25/–

(For Sands for Bricklaying and Plastering see respective trades)

Pavings

• Brick hardcore	per yard cube	3/9
Concrete ditto	per yard cube	3/9
• Clean furnace clinker and boiler ashes	per yard cube	3/6
• Coarse gravel for paths	per yard cube	7/9
• Fine ditto	per yard cube	10/9
Clean granite chippings	per ton	18/6
Red quarry tiles, 6″ × 6″ × ¾″	per yard super	6/–
Ditto 6″ × 6″ × ⅝″	per yard super	5/–
Buff ditto, 6″ × 6″ × ¾″	per yard super	6/6
Ditto 6″ × 6″ × ⅝″	per yard super	5/6
Hard red paving bricks, 2″	per 1,000	150/–
Ditto 1½″	per 1,000	142/6

Reinforcement

Home trade maximum basis price for mild steel rods, ¼″ diameter and upwards, *ex mills delivered station or siding*	per ton	£10 19 6
Extras for :—		
$\frac{1}{16}$″ and ⅛″ diameter	per ton	10/–
$\frac{7}{32}$″ diameter	per ton	15/–
⅛″ diameter	per ton	20/–

CONCRETOR—(*reinforcement continued*)

$\frac{1}{16}$″ diameter	per ton	30/–
¼″ diameter	per ton	40/–
$\frac{5}{16}$″ diameter	per ton	60/–
Lengths of 40 ft. to 45 ft.	per ton	10/–
Lengths of 45 ft. to 50 ft.	per ton	15/–

Sundries

Retarding liquid, in 5-gallon drums (for exposing aggregate) per gallon	20/–	Ex Warehouse, Southwark Bridge. Drums chargeable and credited, if returned.
Ditto. (for obtaining a bond) per gallon	12/6	

BRICKLAYER

Common Bricks

Rough stocks	per 1,000	67/6
Third stocks	per 1,000	52/6
Mild stocks	per 1,000	69/6
Sand limes	per 1,000	50/–
* Phorpres pressed Flettons	per 1,000	46/3
* Phorpres keyed Flettons	per 1,000	48/3
• Blue Staffordshire wirecuts	per 1,000	165/–
Lingfield engineering wirecuts	per 1,000	95/–
Breeze fixing bricks	per 1,000	57/6
Firebricks, best Stourbridge 2½″	per 1,000	155/–
Firebricks, best Stourbridge 3″	per 1,000	190/–

* At King's Cross. For delivery in W.C. district add 4/3 per 1,000.

Facing and Engineering Bricks

Sand Limes, No. 1	per 1,000	85/–
Sand Limes, No. 2	per 1,000	70/–
* Phorpres rustic Flettons	per 1,000	66/3
Midhurst Whites	per 1,000	75/–
• Hard stocks, firsts	per 1,000	95/3
• Hard stocks, seconds	per 1,000	88/–
Sand-faced, hand-made reds	per 1,000	from 115/–
Sand-faced, machine-made reds	per 1,000	from 110/–
Red rubbers (9½-in.)	per 1,000	300/–
• Uxbridge Flints (white)	per 1,000	72/6
• Uxbridge Flints (creams, light greys, etc.) per 1,000		from 90/– to 110/–
Dunbricks (concrete), multi reds, ex works	per 1,000	72/–
Dunbricks (concrete), multi lavender, ex works	per 1,000	75/–
Southwater engineering No. 1 (first quality red pressed)	per 1,000	145/–
Southwater engineering No. 2 (second quality red pressed)	per 1,000	125/–
• Blue pressed	per 1,000	185/–

* At King's Cross. For delivery in W.C. district add 4/3 per 1,000.
Discount if accompanied by order for pressed 2/– per 1,000.

• Items marked thus have risen since September 28.

CURRENT PRICES

BY DAVIS AND BELFIELD

BRICKLAYER AND DRAINLAYER

BRICKLAYER—(*continued*)

White, Salt and Coloured Glazed Bricks (9″ × 4½″ × 2½″)

The following prices are subject to 2½ per cent. trade discount and 2½ per cent. cash discount, and include delivery to any railway station (minimum 4-ton loads). Add 10/– per 1,000 for delivery in London area.

Prices per 1,000	White, Ivory and Salt Glazed		Buff, Cream and Bronze	Other Colours	All Colours
	Best	Seconds	Best	Best	Seconds
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Stretcher, glazed one side ..	24 0 0	22 0 0	26 0 0	29 10 0	23 0 0
Header, glazed one end	23 10 0	21 10 0	25 10 0	29 0 0	22 10 0
Double stretcher, glazed two sides	32 10 0	30 10 0	34 10 0	38 0 0	31 10 0
Double header, glazed two ends	29 10 0	27 10 0	31 10 0	35 0 0	28 10 0
Quoin, glazed one side and one end	30 10 0	28 10 0	32 10 0	36 0 0	29 10 0

Limes and Sand

		1-ton lots	6-ton lots
Lime, greystone	per ton	42/–	37/6
Lime, chalk	per ton	42/–	37/6
Lime, blue Lias (including paper bags)	per ton	47/6	42/6
Lime, hydrated (including paper bags)	per ton	47/–	42/6
• Washed pit sand	per yard cube		8/6

(For cements, *see* "Concretor.")

Hire of jute sacks charged at 1/6 and credited at 1/6. If left, charged at 1/9.

Sundries

Wall ties, self coloured	per cwt.	19/–
Wall ties, galvanized	per cwt.	24/6
Hoop iron, black	per cwt.	25/–
D.P.C. slates, size 18″ × 9″	per 1,000	150/–
D.P.C. slates, size 14″ × 9″	per 1,000	117/6
D.P.C. slates, size 14″ × 4½″	per 1,000	59/–
*Ledkore D.P.C. Grade A	per foot super	5d.
*Ledkore D.P.C. Grade B	per foot super	6½d.
*Ledkore D.P.C. Grade C	per foot super	8d.

* Trade discount 5 per cent. and cash discount 5 per cent. Prices include delivery on minimum of £4 orders.

		9″×3″	9″×6″	9″×9″	12″×9″	14″×9″
Earthenware airbricks: red, blue, vitrified and buff terra cotta	each	–/8	1/4	2/4	4/–	6/8
		9″×3″	9″×6″	9″×9″	12″×6″	12″×9″
Black cast iron, School Board pattern airbricks	per doz.	3/–	5/6	11/–	11/–	20/–
Galvanized ditto	per doz.	5/6	11/–	22/–	22/–	40/–
Black hit and miss cast iron ventilators	per doz.	12/–	15/–	21/–	21/–	36/–
Galvanized ditto	per doz.	24/–	30/–	42/–	42/–	72/–
		1′ 0″	1′ 6″	2′ 0″	2′ 6″	3′ 6″	5′ 0″
Buff terra cotta chimney pots	each	2/6	3/–	4/4	5/9	13/4	22/6
• Fireclay	per ton	55/–					

Wall reinforcement supplied in standard rolls containing 25 yards lin.

2″ wide black japanned	per roll	2/1
2″ wide galvanized ..	per roll	3/2
2½″ wide black japanned	per roll	2/7½
2½″ wide galvanized ..	per roll	3/10½

Greater widths pro rata 2½″ price carriage paid on orders of £5. Discounts for quantities.

Partitions

		2″	2½″	3″	4″
Breeze ..	per yard super	1/3½	1/5½	1/8	2/3
Clay tiles ..	per yard super	2/3	2/6	2/9	3/1
Pumice ..	per yard super	2/8	3/–	3/6	4/–
Plaster ..	per yard super	2/3	2/9	3/3	4/–

BRICKLAYER—(*continued*)

Shepwood Partition Bricks size 9″ × 2⅞″ and 2½″ on bed. Terms, as for Glazed Bricks

Prices per 1,000 except where stated per brick	White, Ivory and Salt Glazed		Buff, Cream and Bronze	Other Colours	All Colours
	Best	Seconds	Best	Best	Seconds
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Double stretcher, glazed two sides	32 10 0	30 10 0	34 10 0	38 0 0	31 10 0
Single stretcher, glazed one side	24 0 0	22 0 0	26 0 0	29 10 0	23 0 0
	Each	Each	Each	Each	Each
Round end glazed two sides and one end ..	–/10½	–/10	1/0½	1/0½	–/10½

Gas Flue Blocks

		Single Flues	Double Flues
• Straight blocks	each	1/3	2/2
• Building in set	per set of 3	2/11	5/4
• Cover blocks	each	1/7	3/4
• Raking blocks 45°	each	3/–	4/3
• Raking blocks 60°	each	2/2	3/1
• Offset blocks	each	3/8	5/4
• Closer blocks	each	1/3	2/2
• Closer flashing blocks ..	each	1/1	1/10
• Straight flashing blocks ..	each	1/1	1/10
• Terminal and cap	per set	7/5	12/8
• Middle terminal and cap ..	per set	6/11	11/10
• End terminal and cap ..	per set	7/2	12/5
• Corbel block	each	5/4	3/6
• Gathering block	each	—	10/8

DRAINLAYER

Agricultural Pipes

		2″	3″	4″	6″
Pipes in 12″ lengths ..	per 1,000	67/6	92/6	120/–	210/–

(Delivered in full loads Central London Area.)

Salt Glazed Stoneware Pipes and Fittings

		4″	6″	9″
Pipes (2′ lengths)	each	1/8	2/6	4/6
Bends, ordinary	each	2/6	3/9	6/9
Single Junction, 2′ long	each	3/4	5/–	9/–
Yard Gulley, without grating ..	each	6/3	6/10½	11/3
Ordinary round or square Grating, painted	each	–/7½	1/3	2/6
Ordinary round or square Grating, galvanized	each	1/0½	2/1	4/4½
Extra for Inlets, horizontal	each	1/6	1/6	1/6
Extra for Inlets, vertical	each	2/3	2/3	2/3
Intercepting Trap with Stanford Stopper	each	17/6	22/6	37/6
Grease and mud interceptor with bucket for removing silt and grease for 6″, 9″ and 12″ drains, with iron grating, painted	each	20/–		
Ditto, with iron grating galvanized	each	21/10½		

The above prices to be varied by the following percentages for the different qualities given. All subject to 2½ per cent. cash discount.

	British Standard	British Standard Tested
Orders for 2 tons and over	Less 20%	Plus 5%
Orders under 2 tons, 100 pieces upwards	Less 2½%	Plus 22½%
Orders under 2 tons, less than 100 pieces	Plus 7½%	Plus 32½%

	Best	Seconds
Orders for 2 tons and over	Less 27½%	Subject to 15% off the price of best quality for all sizes
Orders under 2 tons, 100 pieces upwards	Less 10%	
Orders under 2 tons, less than 100 pieces	Nett	

• Items marked thus have risen since September 28.

CURRENT PRICES

BY DAVIS AND BELFIELD

DRAINLAYER AND MASON

DRAINLAYER—(*continued*)

Cast Iron Drain Pipes and Fittings

Socket and Spigot Pipes :— Weight (per 9 ft.)	Size	9 fts.	6 fts.	4 fts. each	3 fts. each
1.1. 8	4″ per yard ..	6/2	6/11	11/–	8/4
1.1.20	4″ per yard ..	6/5	7/1	11/3	8/7
2.0. 6	6″ per yard ..	9/6	11/4	18/3	14/7
4.0. 2	9″ per yard ..	17/3	22/7	39/2	29/10

Socket and Spigot Pipes :— Weight (per 9 ft.)	Size	2 fts.	18 ins.	12 ins.	9 ins.
1.1. 8	4″ each	6/11	6/2	5/5	4/11
1.1.20	4″ each	7/–	—	—	—
2.0. 6	6″ each	10/11	—	—	—
4.0. 2	9″ each	—	—	—	—

Tonnage Allowances :—
Orders up to 2 tons nett.
Orders 2 to 4 tons less 2½%
Orders 4 tons or over less 5%

		4″	6″	9″
Bends	each	6/1	12/8	39/–
Single junctions	each	10/9	21/11	67/3
Intercepting traps	each	36/7	46/10	121/11
Gulleys ordinary trapped ..	each	14/2	—	—
Extra for inlet 4″..	each	3/8	—	—
Grease Gulley trap	each	117/6	—	—
H.M.O.W. large socket gulley trap with 9″ gulley top and heavy grating and one back inlet ..	each	18/7	44/10	—

Cast Iron Inspection Chambers

The larger figures below refer to the main pipes and the smaller figures to the branches

	4″×4″	6″×4″	6″×6″	9″×6″	9″×9″
	each	each	each	each	each
Straight chambers with one branch one side ..	36/1	46/10	51/8	109/8	124/4
Straight chambers with two branches one side..	55/7	65/4	77/–	148/8	185/3
Straight chambers with three branches in all ..	65/4	75/1	89/2	162/10	—
Straight chambers with four branches in all ..	75/1	84/10	101/4	173/5	—
Straight chambers with three branches one side	69/3	84/10	98/6	—	—
Straight chambers with four branches in all ..	79/–	94/7	110/8	—	—
Straight chambers with five branches in all ..	88/9	104/4	122/10	—	—
Straight chambers with six branches in all ..	98/6	114/1	135/–	—	—
Straight chambers with four branches one side	92/8	108/9	131/2	—	—
Straight chambers with five branches in all ..	102/4	118/3	143/4	—	—
Straight chambers with six branches in all ..	112/2	128/–	155/6	—	—
Straight chambers with seven branches in all ..	121/10	137/9	167/8	—	—
Straight chambers with eight branches in all ..	131/8	147/6	179/10	—	—

The branches to the above are at 135°

		4″	6″
Extra for branches between 135° and 180°	each	7/4	7/4
Extra for branches between 90° and 135° other than standard angles	each	5/10½	5/10½

		4″×4″	6″×4″	6″×6″
Curved chambers, no branch 90°–112½°	each	26/10	—	37/1
Curved chambers, no branch 135°	each	26/10	—	37/1
Curved chambers, one branch 135°	each	33/2	46/9	52/8
Curved chambers, two branches 135°	each	39/–	63/5	74/1

Channels in White Glazed Ware (Unselected Quality)

		4″	6″	9″
Half round straight channels, 6″ long ..	each	2/4	3/2	5/8
Half round straight channels, 12″ long ..	each	3/3	4/5	6/11
Half round straight channels, 18″ long ..	each	4/–	5/3	8/5
Half round straight channels, 24″ long ..	each	4/8	6/4	10/6
Half round straight channels, 30″ long ..	each	5/10	7/11	13/2
Half round straight channels, 36″ long ..	each	7/–	9/6	15/9
Half round ordinary or long channel bends	each	8/5	12/11	21/–
Half round ordinary or short channel bends	each	6/–	8/5	—
Three-quarter round ordinary branch bends	each	8/1	11/8	—
Three-quarter round ordinary branch bends, midgets	each	7/3	—	—

		6″×4″	9″×6″
Half round taper channels 24″ long ..	each	7/10	11/3
Half round taper channel bends	each	10/8	17/9

These prices are subject to 20% discount.

DRAINLAYER—(*continued*)

Channels in Brown Glazed Ware

		4″	6″	9″
Half round straight channels 24″ long ..	each	1/8	1/10½	3/4½
Half round straight channels 30″ long ..	each	—	—	4/2½
Ditto, short lengths	each	1/8	1/10½	—
Half round ordinary channel bends ..	each	1/10½	2/9½	5/0½
Ditto, short	each	1/10½	2/9½	—
Ditto, long	each	3/9	5/7½	10/1½
Three-quarter round branch bends ..	each	5/–	7/6	—

		6″×4″	9″×6″
Half round taper channels 24″ long ..	each	3/9	6/9
Half round taper channel bends ..	each	4/8½	8/5½

The above prices are subject to the same discounts as those given for "Best" quality salt glazed stoneware pipes.

Manhole Covers

		Black	Galvanized
24″ × 18″ single seal for foot traffic. (Weight 0.3.0 in lots of 24)	each	14/6	25/9
24″ × 18″ single seal for light car traffic. (Weight 2 cwt. in lots of 24)	each	38/9	65/3
24″ × 18″ Wood Block pattern. For road traffic. (Weight 3 cwts.)	each	Coated 63/–	

		Fine Cast	Galv.
Cast step irons, 13½″ long, 6″ wide, 9″ in wall, approximate weight 5½ lbs. each	per dozen	14/9	25/6

		4″	6″
Galvanized fresh air inlets with cast brass fronts (L.C.C. pattern)	each	5/6	20/3

MASON

Yorkstone

Building quality Robin Hood and Woodkirk Blue Stone.

• Blocks scrappled, random sizes ..	per foot cube	5/–
• Add for blocks to dimension sizes ..	per foot cube	6½d. (each dimension)
• Templates with sawn beds, edges rough (up to 4 ft. super and not over 2′ 6″ long) ..	per foot cube	5/6
• Templates with sawn beds, sawn one edge,	per foot cube	6/7½
• Templates with sawn beds, sawn two edges,	per foot cube	7/8½
• Prices f.o.r. Yorkshire, railway rate to London Station per ton. (Minimum 6-ton loads.)		20/1

Ancaster Stone

Freestone, random blocks	per foot cube	3/6
Brown weather bed stone selected for polishing all brown blocks	per foot cube	8/–
Brown and blue weather bed stone selected for polishing	per foot cube	7/–

Prices f.o.r. Ancaster, railway rate to London Station approximately 11½d. per foot cube (minimum 6-ton loads).

White Mansfield Stone

Random blocks (yellow bed) for dressings	per foot cube	4/–
Random blocks (hard middle bed) for steps, pads, pavings and copings	per foot cube	3/6
Prices f.o.r. Mansfield, railway rate to London station, 6 ton lots	per foot cube	1/2

Bath Stone

Random blocks, delivered railway trucks, Paddington or South Lambeth	per foot cube	2/10½

Portland Stone

Whitbed, in random blocks of 20 feet cube average, delivered railway trucks Nine Elms, South Lambeth or Paddington	per foot cube	4/5
Basebed—add to the above	per foot cube	–/8
For every foot over 20 ft. cube average—add	per foot cube	–/1
For every foot over 30 ft. cube average—add	per foot cube	–/0½

½″ Thick Plain Marble Wall Linings

Roman Travertine	per foot super	5/–
Golden Travertine	per foot super	6/3
Roman stone	per foot super	4/6
Hopton-wood stone	per foot super	5/–
Second statuary	per foot super	4/6
Sicilian	per foot super	4/–

Artificial Stone

6″ × 3″	Copings and sills	per foot run	1/6
6″ × 6″	Copings and sills	per foot run	2/4
9″ × 3″	Copings and sills	per foot run	2/–
9″ × 6″	Copings and sills	per foot run	3/4
12″ × 3″	Copings and sills	per foot run	2/4
12″ × 6″	Copings and sills .. .	per foot run	3/9
Cornices according to detail, per foot cube (from)			6/9

• Items marked thus have risen since September 28.

CURRENT PRICES

BY DAVIS AND BELFIELD

MASON, SLATER, TILER AND ROOFER, AND CARPENTER

MASON—(*continued*)

Reconstructed Stone to match Natural Stone

• Sills, lintols, coping, cornices, ashlar, etc., average size	per foot cube	11/6
Window sills, 9″ × 3″ section	per foot run	2/1
,, ,, 7″ × 3″ section	per foot run	2/–

Slate Slabs, cut to size and Planed

		1″	1¼″	1½″
Not exceeding 4′ 6″ long or 2′ 3″ wide	per foot super	3/1	3/4	3/11
,, ,, 6′ 6″ long or 3′ 3″ wide	per foot super	3/9	4/1	4/10
Exceeding 6′ 6″ long or 3′ 3″ wide	per foot super	4/1	4/6	5/2
Rubbed faces	per foot super	–/5	–/5	–/6
,, edges	per foot run	–/4	–/4	–/5

Combined Slate Cills and Window Boards for Metal Windows
Straight Cills

• 12″ wide for 9″ walls	per foot run	2/9
• 14″ wide for 11″ cavity walls	per foot run	3/2½
• 16½″ wide for 13½″ walls	per foot run	3/10¼

SLATER, TILER AND ROOFER

Best Bangor Slates

		£	s.	d.
24″ × 12″	per 1,000 actual	33	10	0
22″ × 12″	per 1,000 actual	27	19	0
22″ × 11″	per 1,000 actual	25	4	9
20″ × 12″	per 1,000 actual	24	14	6
20″ × 10″	per 1,000 actual	21	15	5
18″ × 12″	per 1,000 actual	20	19	3
18″ × 10″	per 1,000 actual	17	7	6
18″ × 9″	per 1,000 actual	15	11	9
16″ × 12″	per 1,000 actual	17	14	9
16″ × 10″	per 1,000 actual	15	11	9
16″ × 9″	per 1,000 actual	13	19	6
16″ × 8″	per 1,000 actual	12	1	11

Prices include for delivery to site in lots of 1,000 and upwards.

Old Delabole Slates (f.o.r.)

Standard sizes.
Prices and computed weights per 1,200.

		20″ × 10″	16″ × 10″
Grey medium gradings	per 1,200 cwts.	558/– 38	366/– 30
Unselected greens (V.M.S.)	per 1,200 cwts.	628/– 44	413/– 36

Random sizes.
Prices per ton and computed covering capacities in squares per ton.

		No. 1 Grading 24″/22″ to 12″/10″
Grey	per ton	128/–
Covering cap. :	per ton (3″ lap)	2·37 squares
	per ton (4″ lap)	2·19 squares

		No. 2 Grading 24″/22″ to 12″/10″
Weathering grey greens (V.M.S.)	per ton	139/–
Covering cap. :	per ton (3″ lap)	2·25 squares
	per ton (4″ lap)	2·08 squares

		No. 2 Grading 24″/22″ to 12″/10″
Weathering greens (V.M.S.)	per ton	149/–
Covering cap. :	per ton (3″ lap)	2·25 squares
	per ton (4″ lap)	2·08 squares

		No. 2 Grading 24″/22″ to 12″/10″
Rustic reds (25%) and weathering greens (V.M.S.)	per ton	174/–
Covering cap. :	per ton (3″ lap)	2·25 squares
	per ton (4″ lap)	2·08 squares

Railway rate to Nine Elms, London, minimum 4 tons, 21/9, minimum 6 tons per truck, 18/1 per ton.

SLATER, TILER AND ROOFER—(*continued*)

Tiles

	£	s.	d.
Hand-made sandfaced 10½″ × 6½″ red roofing tiles per 1,000	4	15	0
Machine-made sandfaced 10½″ × 6½″ red roofing tiles per 1,000	4	0	0
Berkshire rustic pantiles per 1,000	18	10	0

Westmorland Green Slates

	Price per ton	Bests, 24″ to 12″ long. Proportionate widths Computed cover in sq. yds. per ton
Random sizes.		
No. 1 Buttermere fine light green	240/–	30
No. 2 ,, light green (coarse grained)	215/–	27–28
No. 5 ,, olive green (coarse grained)	197/–	25–27
No. 5 Medium green	197/–	25–26
No. 7 Elterwater fine light green	216/–	27–28
No. 15 Tilberthwaite fine light green	214/–	26–28
No. 16 ,, light green (coarse grained)	202/–	25–27
Broughton Moor, light sea green, olive green, silver grey green, and mixed shades	237/–	27

Prices include for delivery to any station, minimum 6-ton truck loads.

Asbestos-cement

• 6″ corrugated sheets, grey	per yard super	3/5¼	
• Standard 3″ corrugated sheets, grey	per yard super	3/1½	
Slates :—			
• 15¾″ × 7⅞″ grey	per 1,000	£8	18 6
• 15¾″ × 15¾″ diagonal, grey	per 1,000	£13	3 3
• 15¾″ × 15¾″ diagonal, russet or brindled	per 1,000	£16	12 3
• Pantiles. Large russet brown	per 1,000	£21	15 0

Prices are for minimum two-ton loads, and are subject to 5% trade discount.

Cedar Wood Tiles

Canadian cedar wood shingles .. per square 33/– (normal quantity).

Prices include for delivery to nearest railway station in England but vary with quantity.

CARPENTER

The following timber prices are maximum prices to consumers at Port of London for Fourth White Sea Classification and include reloading on to transport at depot for orders of not less than £15 in value of any one size and quality. For sales less than £15 in value add 20 per cent.

On goods bought ex stock stored in inland yards (situated outside port area) sellers are entitled to add to the appropriate port prices cost of carriage from the port of entry, plus 20s. per standard.

Sawn Redwood, commonly known as Builders' yellow deal :

		Per standard £	s.	d.
4 × 11	Scantling	23	7	6
3/2½/2 × 11	,,	23	7	6
4 × 10/9	,,	24	10	0
3/2½/2 × 10/9	,,	24	10	0
4 × 8	,,	23	5	0
3/2½/2 × 8	,,	23	5	0
4 × 7	,,	23	5	0
3/2½/2 × 7	,,	23	5	0
4 × 6	,,	22	5	0
3/2½/2 × 6/6½	,,	22	5	0
2 in. and up × 5/5½	,,	22	5	0
2/3 × 3/4½	,,	22	5	0
Boards				
1 in. and up × 11		22	17	6
1 in. and up × 10/9		24	0	0
1 in. and up × 8		22	17	6
1 in. and up × 7		22	17	6
1 in. and up × 6½/6		22	12	6
1 in. and up × 5½/5		22	0	0
1 in. and up × 4½/3		21	2	6

No extra for ⅜″, ½″, ⅝″, ¾″ and ⅞″ boards.

Redwood and Whitewood slating battens (under 3″ wide)

All ⅜″, ½″, ⅝″, ¾″, ⅞″ and 1″ and thicker, Swedish U/S, second class	22	0	0

• Items marked thus have risen since September 28

TO BE CONTINUED IN NEXT ISSUE

COMPETITION

PROPOSED CATHEDRAL, AUCKLAND

The following additional conditions to meet the altered circumstances owing to the outbreak of war are issued by the promoters with the approval of the New Zealand Institute of Architects :

Under Clauses 10 and 11 of the Conditions of Competition the drawings of each competitor are required to be sent to the Secretary of the Royal Institute of British Architects, 66 Portland Place, London, and to arrive on or before November 15, 1939. Any competitor who wishes to forward his drawings direct, in accordance with these Clauses, is entitled to do so, in which case the drawings must reach the Royal Institute of British Architects by the appointed date. The attention of any such competitor is drawn to Clauses 7 and 8 below.

In view, however, of the uncertainty caused by war conditions, the promoters have decided to vary the Conditions so as to provide an alternative method of lodging the drawings. Any competitor who so desires may avail himself of this alternative method, which is as follows :—

1. The drawings of competitors in New Zealand may be sent to the New Zealand Institute of Architects, Wellington, mounted in accordance with the conditions of the Competition, and accompanied by the typewritten report provided for in Clause 21 of the Conditions and a declaration and a sealed envelope containing the competitor's name and address as provided in Clause 10 of the Conditions.

2. Such drawings must be sent (carriage prepaid) so as to reach the office of the New Zealand Institute of Architects not later than November 15, 1939.

3. The drawings shall be held in Wellington until the promoters and the Executive of the New Zealand Institute of Architects agree that it is reasonably safe to send them to England.

4. The promoters agree to defray the cost of sending the drawings to England.

5. For their own protection, competitors are advised that in the opinion of the promoters they should send to the New Zealand Institute of Architects duplicates of their drawings in the form of prints or tracings, together with a copy of the typewritten report and declaration and a second sealed envelope as provided in the conditions with regard to the first set of drawings, such duplicates to be sent at the same time as the original drawings but in a separate package, which shall be marked clearly on the exterior "Duplicate." Each competitor will, therefore, send two separate packages, one marked "Original" and the other marked "Duplicate." Duplicates are to be lodged unmounted.

6. The duplicate drawings will be held in safe custody in Wellington, and in the event of loss of the original drawings, they will be sent to England and will be mounted at the expense of the promoters before being submitted to the assessor. The promoters reserve the right, if thought desirable, to open the duplicate packages before forwarding them to England, to photograph the duplicates and in the event of loss of the duplicates to use the photographic copies for the purpose of the competition.

7. In the event of a competitor sending his drawings to England direct, he may, and is advised to, lodge a duplicate with the New Zealand Institute of Architects before November 15, as provided above.

8. The promoters will exercise care in the forwarding of the drawings to England but will take no responsibility for their loss. In the event of the originals lodged with the New Zealand Institute of Architects or any originals forwarded direct by the competitor not reaching England, a competitor who has not lodged a duplicate set of drawings as above provided will not be allowed to do so at a later date and he will therefore be excluded from the competition.

LAW REPORT

LIABILITY UNDER LONG LEASES

Whitham v. *Bullock.—Court of Appeal. Before Lords Justices Scott, Clauson and du Parcq.*

THIS was an appeal which involved a point of importance to assignees of long leases, where no legal apportionment of ground rent had been fixed.

Mr. and Mrs. Whitham, of Burnley, appealed from an order of Judge Burgis, sitting at the Burnley County Court, in December last, when he dismissed their action against Mrs. A. G. Bullock, under which they claimed three years' ground rent, amounting to £4 odd, in respect of property at Horner Street, Burnley, which had been demolished under a clearance order.

Mr. L. Jenkins, K.C., who appeared for the appellants, explained that it was customary in the north of England to find long leases severed among several assignees, under which no provision was made as to the apportionment of the rent. In the present case the respondent, Mrs. Bullock, as assignee, held part of a parcel of land comprised in a lease for 999 years, the appellants being the assignees of the remainder of the land in question. The action in the county court was by the appellants to recover from the respondent her share of the reserved rent by the lease in question, which had been held by predecessors in title. These predecessors had shared the ground rent, but counsel pointed out that this apportionment in no way bound the landlord. Mrs. Bullock refused to pay her share of the ground rent and the ground landlord collected it from the appellants, who sought to recover it from Mrs. Bullock. When the matter came before Judge Burgis he dismissed the action, holding that neither in common law nor equity was there any right of contribution from Mrs. Bullock.

Counsel now contended that the county court judge was wrong in his view of the law and that the appeal should be allowed.

The court allowed the appeal, after hearing Mr. Gerald Upjohn for the respondent, and entered judgment for the appellants for the sum claimed.

Lord Justice Clauson gave the judgment of the court and pointed out that the ground landlord was not bound by any agreement, as to apportionment, entered into between assignees and was entitled to distrain for any unpaid portion of the rent on any part of the property.

The court was satisfied that it was a sound argument that the burden, being inequitably placed by the landlord's exercise of his rights, should be equitably adjusted between the appellants and the respondent. Such principles of equity had been recognized by the courts as far back as 1787.

The appellants were therefore entitled to succeed in their appeal.

The other members of the court concurred.