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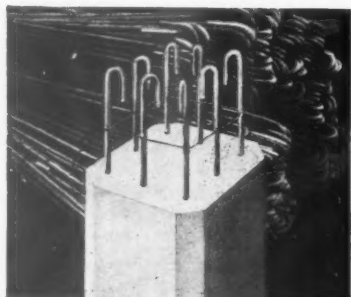
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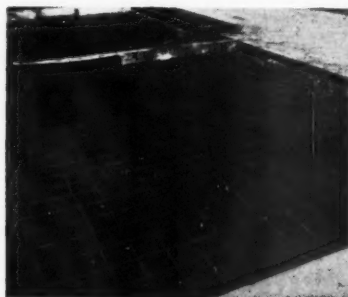
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The Editor will be glad to receive MS. articles  
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Though every care will be taken, the Editor cannot  
hold himself responsible for material sent him.

THURSDAY, DECEMBER 26, 1940. NUMBER 2397 : VOLUME 92

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Owing to the paper shortage the JOURNAL, in common with all  
other papers, is now only supplied to newsagents on a "firm  
order" basis. This means that newsagents are now unable to  
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to the Publishers.

## DROTTNINGHOLM CASTLE



*Drottningholm Slott is on an island in Lake Malaren in Sweden. The first portion was built in the late seventeenth century and it was completed and a theatre added in 1765. The Castle is now the Royal Summer Palace.*



## TWO COMPETITIONS

*The results of the limited competitions for a new Town Hall for Bedford and a new Shire Hall for Bedfordshire (to be built on neighbouring sites in Bedford) have been announced.*

*Above, a perspective of the winning design for the Shire Hall, by Oswald P. Milne. Left, winning design for Bedford Town Hall, by Harvey and Wicks. (Drawing by Harry Gibberd.) The designs are illustrated on pages 513-516.*





## NEEDED AT LAST

**B**EFORE war began architects were reserved, unreserved and reserved again at 31 and over.

The officials who, after many discussions, thus withheld a portion of the profession from combatant service did not do so with any idea of preserving skilled designers for reconstruction after a probable war was over. They did so to provide a reservoir of trained men to counter the effects of bombs on buildings. They expected that they would need architects to direct demolition and shoring, minor and major repairs to buildings and to supervise the construction of very many temporary buildings. And they believed, that an appreciable proportion of these architects would have to be young enough to master new problems quickly and to stand long hours of work in distressing surroundings.

When war did begin, the expected bombing did not take place and the lot of architects became very hard. The usual work of two-thirds of the profession either came to an end at once, or was obviously going to do so within one or two months. Architects were not needed for the main job for which they were reserved, and though a number of them were badly needed for the design and construction of war buildings, the departments in charge of such buildings showed no signs of realizing it.

This intolerable position of being reserved for a job which did not exist, and thereby being debarred from other forms of war service, was brought to an end by the profession's own request. Architects were once more unreserved, and thereafter were free to take part in the war in any way they desired or could achieve. Mr. Romilly Craze's analysis of the employment of members of Allied Societies in September-October last\* suggests that half of such members were then in the Forces or Government or official employment, and the other half were still carrying on some form of private practice. The result of a similar analysis of the employment of all members and students of the R.I.B.A. during the same period can only be guessed at. But it seems probable that 70 per cent. were in the Services or engaged in a salaried capacity on Government, local authorities' or public utility companies' work, and that, of the remaining 30 per cent., half were engaged part time on direct or indirect Government

work and the other half were almost wholly unemployed. It can at any rate be assumed that this was roughly the position when heavy bombing attacks began and architects were needed for the work for which they were formerly reserved.

Immediately after September 7, and in increasing measure ever since, it became plain that there were not nearly enough architects in official employment to cope with the work which every night provided. Nor was this all. Architects' Departments not only could not get the men they particularly wanted—capable assistants aged 25-35—but they were losing to the Services the men they had already. As demands for the immediate execution of repairs to buildings flowed in upon official departments, the principals of such departments had to spend an appreciable proportion of their time applying for postponements of call-ups. So serious has the situation become that it is said principals are being driven to defeat the National Service Act by labelling architects who are needed for architects' work as Engineering Assistants, Engineering Draughtsmen, Surveyors, or anything else which will enable them to be retained.

The JOURNAL is informed that the R.I.B.A. has already made representations to the Ministry of Labour to have this situation altered, but so far without result. In the meantime, architects of 29-33, the men most needed in official departments and as assistants to private architects engaged on repair work, are being called up in large numbers. And while principals are struggling to prevent experienced men leaving by one door, the Ministry of Home Security has itself just circularized architects in order to bring in inexperienced men by another. Such goings-on are, at the least, odd.

To the man in the street, it seems likely that Hitler will very soon make a grand attack on Britain. This attack will, presumably, be accompanied by grand bombing, and the work of local authorities in repairing houses and essential buildings may, for a period, be vastly increased. This work will require an increase in the number of senior architects employed by local authorities and a great increase in the number of experienced assistants. Many such assistants are already in the Armed Forces. It would seem common-sense to prevent their being joined by the remainder in the next three months. For it is plain that very soon they would have to be brought out again.

\* Published in the *R.I.B.A. Journal* for November 18.



*The Architects' Journal*

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## NOTES & TOPICS

### FUTURE HOUSES

**I**N a book which I mentioned last week,\* Mr. G. M. Boumphrey writes of the surprise of Continental architects on being told that we could build a 3-room small house for much less than the cost of a 3-room flat.

To me it is a justifiable surprise and one which touches on a question of great importance to post-war building. It seems a ludicrous situation. Each house has to have its own roof and all the difficult joints in a roof, a much greater area of external wall and openings, its own foundations, paths, fences and its separate sanitary and heating equipment and pipes. Judged by the results of standardization, mass production and large-scale operation in almost every other branch of human activity, the flat block containing 100 flats should work out considerably cheaper than 100 houses. And on the Continent it does so work out.

Why not in Britain? Mr. Boumphrey's explanation is that we have specialized in small houses and built so many that there is nothing we don't know about cutting the price of them; whereas Continental housing authorities have specialized in flats.

There seems to me no doubt that this is one half of the explanation: the other half is that when we have built flats, we have almost invariably regarded them as so many houses piled on top of each other. The standard rehousing flat-block is of four or five floors, of solid brick construction with pitched roof, innumerable chimney pots, separate heating and hot water heating in each flat and all the coal store and dustbin business multiplied several dozen times. It combines, in short, the worst features of houses and flats.

If we are going to get rid of this kind of block—and sane reconstruction after the war will depend upon our doing so in no small measure—it must be done from the centre. Approved Designs for 5- to 10-floored blocks of differing size should be issued, and these designs should not only show plans, but also every detail of construction and equipment layout; and carry with them their own

\**Town and Country Tomorrow*. By G. M. Boumphrey. Thomas Nelson & Sons, Ltd. Price 2s. 6d.

Code of Building Regulations which would be valid throughout the country. And, of course, apart from the central heating plant, no solid fuel would be allowed to be burnt.

No doubt the publication by the Ministry of Health of my Approved Designs (carrying a subsidy of 75 per cent. compared with 25 per cent. for any other housing type) would create a first-class row. No one, as Mr. J. L. Hammond wrote of Lord Shaftesbury, can be consistently in advance of his time without getting a keener wind than he likes in his face. But it is the duty of Ministers of Health to be in advance of their time.

At present we move overworked women from the ashes and dirt of slums to the ashes and dirt and kettles of hot water up eight flights of stone stairs because central heating, central hot water, gas cookers and lifts would add 11'038d. a week—or some such figure—to the rent. The solution is to offer a subsidy which will more than cover this addition, and go on offering it, despite outcry, for ten years.

At the end of that time architects, engineers, contractors, local authorities and tenants will have had full experience and expert knowledge of building and running *proper* flat blocks, costs will be falling and Councillors who suggest installing coal fires in a flat block will be howled down.

### RESERVATION

It is said that one of the objections now being put forward to renewing the reservation of architects is that a large number are still unemployed.

It is suggested that it would be foolish to allow a local authority to recruit architects aged 30-35 for air-raid repair work in their Architects' Department, and subsequently to reserve these men, while older architects in private practice in the neighbourhood are both able and willing to do the work. And every architect will agree with this suggestion where the facts are as stated. But the facts seem to be very different.

The proposal that architects—or architects engaged on specified work—should be again reserved has arisen from two factors. First, at a time of great pressure on local authorities' and public utility companies' architectural staffs, many of their most experienced men are being called up. Second, there is a great need for a large number of moderately experienced, adaptable architects to survey and supervise air-raid repairs in areas which have suffered most.

That there are a considerable number of architects over forty who would like or badly need additional work is no answer to the first difficulty. A time of great pressure is not the best time to train new men in somewhat specialized work.

Nor is it much answer to the second. The bulk of the architects who want work most are private architects over forty in provincial districts which have not been bombed. Such men are often keeping going some semblance of a practice. They do so with hardship—but with nothing like the hardship that would be involved in abandoning their practice and taking a temporary job in another part of the country at £4 or £5 a week. And it is no reflection on older architects who have been in private practice for years to say that in many cases they are not well suited

to undertake the subordinate and very strenuous routine jobs for which men are most needed. What is more, I know that several such men, who have volunteered to go anywhere and do anything, have been rejected on more than one occasion because of their age. No one can enjoy such treatment, however reasonable may be its cause.

\*

It therefore seems clear that very soon some action must be taken concerning architects who are employed on Civil Defence, repairs and war building work. Those who are already doing such work must be able to remain without repeated applications for postponement of calling-up. And large numbers of architects aged 30-40 must be given the option of entering the Building Service rather than the Armed Services. Otherwise not only will building repairs become seriously in arrears but an astonishing rise will probably take place in the numbers of Engineers' Assistants, Quantity Surveyors, Surveyors and Builders' Foremen in the employment of local authorities and Government contractors. For architects in *fact* must be got if building is to go on: in *name* you can call them anything.

#### "PONT" OF PUNCH

It was sad to read the other day of the death, at the early age of thirty-two, of Graham Laidler, better known as "Pont" of *Punch*. During the past few years he had built himself such a reputation, that the question was no longer "Is there anything good in *Punch* this week?" but rather "Is there a 'Pont' this week?"

\*

Surely there has never been a more accurate or pleasingly satirical recorder of contemporary middle-class life, its servants and its children, its golf and its cold Sunday-night suppers. "Pont" drew them in every circumstance of their comfortably tweeded lives, at work and at play, in the drawing-room and in the kitchen, in town, in the country, on the Continent, and even in bed. For this task his style could not have been more appropriate. The acidity of Topolski, the slickness of "Low," would have been out of place. Pont's portraits were never quite caricatures, his situations never quite farcical. He merely observed and recorded in a series of quiet little drawings which, however, were never as harmless as they looked.

\*

Graham Laidler was trained as an architect and he was a student at the A.A. Ill-health, however, drove him abroad—many of his penetrating comments on British life were done as far away from Britain as Arizona—and though he never returned to architecture his training showed itself unmistakably in every one of his drawings. One of his first illustrations for *Punch* indeed depicted the interior of an architect's office complete with adjustable set-square and pavement-light ash-tray. But it was not so much the subjects of his drawings which revealed his training as the fact that he always *drew* like an architect. This was shown not only in the easy assurance with which he built up a street of houses or an interior, but also in the affectionate delight which he had so clearly taken in every detail. Searching the background of a "Pont" drawing was one of its major joys, and most people will remember the discovery of such curiosities as night-mare faces peering from distant windows, crazily dancing statuettes on mantelpieces, bottles on the kitchen dresser marked "poison" and the lettering printed upside down on a book which read (when you turned *Punch* round as you always did), "Now then, curious!"

\*

Pont's earliest drawings for *Punch* were elaborate, even a trifle overworked—perhaps suffering from the fierce

cross-hatching of Sir Bernard Partridge a few pages off. Later, however, as his confidence grew, his technique simplified, and the complicated pen-work gave way to pure line drawings, in pen or pencil, sometimes in combination with faint washes; and it is for these, simple and economical little drawings, that "Pont" will long be remembered.

\*

It is usual to say of *Punch* that it is not so good as it was. Certainly while "Pont" drew it has never been better. He gave more pleasure to people than most architects can hope to do in more orthodox ways, and he will be greatly missed.

#### BACK TO THE GREEKS

It is always interesting to learn what others are doing these days. An opportunity came the other day when I met a sculptor I knew. He invited me to come and see his studio. We climbed several rickety flights of stairs before reaching his hide-out. However, when we got there, it was worth it. I was entertained by biscuits and sherry—"Only cheap stuff," he explained. It was served in a beaker.

\*

My friend removed his black-out precautions of laths and brown paper. A glimpse of roofs, skylights, and odd shapes was to be seen through the windows. "Cubic inspiration," he said. Then I had a look round; for I had come to see the contents not the scenery. These were chiefly busts of artists and children. Business it seems is brisk. At the moment portraiture of all kinds is in much favour. If you cannot afford a bust, then a coloured plaster plaque is the thing.

\*

He told me Phidias did something of the sort.

#### FARTHER NORTH

In the thin line of Christmas cards which has so far filtered past the Post Office to my mantelpiece is one from Iceland. It is a tasteful one in blue and white—with small anchor, rose, maple leaf and R.A.F. wings around a central polar bear\*—and confers credit on the military, N.A.A.F.I. or Y.M.C.A. authority which was thoughtful enough to provide such things for H.M. Forces in Iceland.

\*

This farthest north member of our profession has no further doubts about the source of pre-war depressions: the weather, usually bad, never remains the same for more than three hours at a time. Daylight at the time of writing was 10.30 to 2.30 and growing less; and in order to make full use of this meagre illumination, evening dinner has been made the rule for all.

\*

Other Ranks eyed this wholesale social promotion with suspicion for several days—the general opinion being that the High Command had somehow or other put over a fast one.

\*

Iceland's architecture receives no mention—possibly because this architect has now ski-ing and skating and other winter sports provided at the Government's, and not his own, expense. But he does send good wishes for Christmas and the New Year to his profession. This example is followed, with great goodwill, by

ASTRAGAL

\* Footnote from my friend: "though you would, of course, have to have a very good look round Iceland to find a polar bear and, if you did, you would then look for its parachute."



## CHRISTMAS IS DIFFERENT

By Dudley Harbron

IT is that. In the dim past the architect's office on Christmas Eve was more like a universal store—poultry rather battered, cheeses, cigars, cigarettes, pot ashtrays in sanitary ware, scales, calendars for all the walls, diaries for every pocket of the most pocketed suit.

And now—I suppose we shall have to buy our own.

I hope everybody will be able to purchase at least one diary, and then resolve to write something in it each day, as although I do not keep one myself, and seemingly few others have the necessary resolution, if some thousands make this vow—some three or four will keep it. Posterity will be pleased. I like looking at these documents.

When reading *The Wynne Diaries* the other day I could not avoid noting what a small part Christmas played in the life of those young ladies. It did not surprise me, for the phlegm with which Betsey sets down important and exciting events: the loss of Admiral Nelson's arm, or her husband's wounds, did not encourage me to hope that the most unusual Christmas would destroy her calm. Moreover, at the moment I recollected that someone had told me it was Charles Dickens who had invented Christmas, and these two young ladies were going to Mass before the author was known.

But second thoughts showed the fallacy of this reckoning; that like much about Dickens it was mythical. For he could at best only have revived Christmas; given it some candies blown glass balls on a tree, because Christmas Day had been abolished by resolution of Parliament on December 24, 1652—and so must have anticipated C.D. by many years. You cannot well ban something that has no existence.

Yet Dickens and the day have been intertwined in more than one mind. Witness the landlord of the Talbot, in whose company I spent Christmas Eve early in the late war. It was a snowy night, the host grew reminiscent as the clock ticked toward midnight.

"I'm reminded," he said, "of a queer thing that happened here one Christmas long ago"—I felt for a moment as if he were about to tell me a ghost story, shuddered, but—"You know Charles Dickens," he continued. "Well, just such a night as this, he was staying in this hotel, leastways he had to. Because, you know, the road to Castle Howard, where he was bound for, was blocked with snow."

"Oh," I encouraged, "that's interesting."

"Well," he continued, "as he had to

stay the night—he had to. Before he got into bed, he arranged the furniture with his compass so that his head and feet lay north and south. Then I suppose he went to sleep. Next morning," my companion continued, "next morning, the snow had stopped falling, though the roads were very bad. We couldn't get a trap to venture. At last we did find one that *had* to go that way. What do you think it was?" I could not guess. "A hearse," he smiled, "and on the coffin of that hearse Charles Dickens left the Talbot. I suppose that's what set him thinking about Christmas."

It must have. The snow must have been deep to prevent D. walking in it—one of his favourite recreations. As for the *Christmas Carol*—Forster says that the idea came in Manchester.

But other folks had not forgotten Christmas. Anyone who has read *The Sketch Book*, by Geoffrey Crayon, Gent, that architecturally named collection of papers, knows that there are three essays devoted to the account of the solemnities and festivities of the season at Bracebridge Hall, when Frank Bracebridge, the "old bachelor of small independent income," who made the history of his family his business, entertained his friend Crayon. It is probable that the year was about 1817, and, if so, that year a boy was born to the Vicar of the parish—the Rev. John Penrose, duly christened Francis Cranmer Penrose.

I do not suppose that the appearance of the parson in Washington Irving's *Christmas in England* was modelled upon John Penrose. The holder of the living of Bracebridge was "a little, meagre, black-looking man." Still he was a scholar of Oxford, and though he may differ in build from his fictitious fellow, in his tastes for "black letter books and Latin texts" they agreed.

The vicar's wife was none other than the renowned "Mrs. Markham," the author of *The History of England*, which History was written for her children, who plagued her with questions—"But you know we have wars still, and yet people are not so cruel now." The child born then became the President of the Institute.

I love this book for two reasons, one that the children's questions contain so much information that is not easily found elsewhere, and the other is that the difficulty her son had in understanding Hume's *History* was the cause of her writing it. The present of a copy of Hume's book, by an old lady divesting herself of her possessions before going to the poor house, in an indirect way led me to try to write.

As a child Christmas Day entailed a jolty ride in a cab, odorous of leather and horsehair, perched with my back to the horse on a narrow seat. So we made the rounds. By we I mean my parents and "me." For before we enjoyed our own plum pudding, we had to make

a tour of the orphanages, the workhouse, the Ragged School dinner and the hospitals, each with their special smells. The only one of these establishments in which I should have desired to spend Christmas was the hospital.

The workhouse was a large, much-scrubbed Gothic building. It smelt of carbolic and people. But, a juvenile male, I was allowed to wander into the female quarters behind my mother and the matron with her chain-dangling scissors and what not. The particular object of our visit being the old lady who had divested herself of my Hume. She had in the past sold mint at our back door—and in the birth of time had been better off. It was on this visit that I was taken by the Master and shown the casuals at work. A wan crew seated on sacks under a lean-to roof, chopping firewood for their dinner. Harder work than that endured by Tommy Tucker. So impressed was I that, later in the day, I wrote my only thriller, *Christmas Day in the Workhouse*. It is fortunate that this composition is lost, as what my eyes did not see my imagination pictured: blood on the sacks, chopped thumbs lying about in the yard, and doubtless the ragged children got into the tale.

It is lost, as is much else about Christmas. For in these parts Yule used to last for twenty days—and now has shed most of them. On Christmas Eve it was the custom for the young girls to take up the Bible—put the end of the key against the chapter in Ruth, where Ruth says, "I will never leave thee or forsake thee: where thou goest thither I will go," tie a garter round the Bible, and through the keyring, and let all swing, repeating the same words as the Bible turned round. If it spun round completely, she slept and dreamed of her sweetheart.

Yet in the same days there were people who did not believe in Christmas. "He told us he differed greatly from the Established Church in his opinion of Christmas Day. He thought it was some time in September, and that the death of Christ took place some time in March."

Moreover, I find that in the eighteenth century *The Gentleman's Magazine* discussed the possibility that Christmas was established by Noah: that he celebrated the day by drinking frumitty as the North of England was still doing.

Christmases differ, I suppose—indeed, I am sure they do. A neighbour of mine celebrates hers by whitewashing the interior of the kitchen oven, polishing the grate, and then—for fear of dust spoiling the picture—spends the day walking about in a fur coat, two pairs of her husband's socks to keep herself warm. A martyr to hygiene and an electric cooker.

Though it is perhaps unseasonable, I should prefer some dust, or to go "on a Christmas visit to eleven elephants in Rajputana."

## NEWS

### R.I.B.A.: NEW ASSOCIATES

On December 12 the following members were elected:—

#### AS ASSOCIATES (19)

Aglan, Miss E. S. (University of Cambridge and the Polytechnic, Regent Street, W.1) (Alyth, Perthshire); Carey, O. C. F. (Architectural Association) (Wareham, Dorset); Chapman, Capt. W. W., R.E. (The Polytechnic, Regent Street, London) (Londn); Clark, J. N. (Merpet, Northumberland); Cooper, R. E. W. (Orpington, Kent); Eaton, T. C. R. (Gillingham, Kent); Fox, R. H. (Cardiff); Gregory, L. E. (University of Liverpool) (Blackpool); Jones, F. M., B.Arch. (University of Liverpool) (Liverpool); Ledge, T. H. (Leeds School of Architecture) (Brighouse Yorkshire); Oexle, J. S. (Loughton, Essex); Palmer, B. D. (Birmingham School of Architecture) (Sherbourne Hill, Near Warwick); Radford, Miss A. M. (Architectural Association) (Potters Bar, Middlesex); Raven, A. L. B. (University of Liverpool) (Shrivenham, Near Swindon, Wilts); Robson, G. (Architectural Association) (Dudley, Worcestershire); Smith, L. T. J. (Londn); Tong, S. E. (Winchester, Hants); Treleaven, R. H. (Isleworth, Middlesex); Wightman, K. L. (Birmingham School of Architecture) (Birmingham).

### THE CHARTERED SURVEYORS' INSTITUTION

Following is a list of the prize winners in the Professional Examination, 1940.

Penfold Gold Medal, Driver Prize, John Gilchrist Prize, Galsworthy Prize, and Mellersh Prize: Milligan, R. A., Polmont, Stirlingshire; Wainwright Prize: Rees, W. H., Bushey, Herts; Crawler Prize: Layton, L. P., Malvern, Worcs; Quantities Prize: Hitchcock, J. A., Ashted, Surrey; Constructive and Working Drawings Prize: Matson, R. J., Kingsbury, N.W.9; Beadel Prize: Bruce, C. W., Comrie, Perthshire; Institution Prize: Kemp, J. J. F., St. Ninians, Stirling; Special Prize: Williams, D. E., Wallasey, Cheshire; Scottish Committee Prize: Petrie, N., Dundee; Hyman Marks Prize: Foster, J., Chryston, Lanarkshire; Julian Rogers Prize: Thomson, J. P. T., Greenock, Scotland.

### MANCHESTER SOCIETY OF ARCHITECTS: STUDENTS' PRIZES

The following prizes have been awarded in competition to Student Members of the Manchester Society of Architects and affiliated societies.

#### SENIOR MEASURED DRAWINGS PRIZES

First, Bradshaw Gass Prize: C. W. Quysner, Manchester University School of Architecture; Second, Society's Prize: L. E. Sykes, Manchester University School of Architecture.

#### JUNIOR MEASURED DRAWINGS PRIZE

Society's Prize: F. S. Bolland, Manchester University School of Architecture.

#### SKETCHES PRIZE

Beaumont Prize: R. B. Turner, Manchester University School of Architecture.

#### SENIOR DESIGN PRIZES

First, Society's Prize: Miss D. Boagey, School of Architecture, Municipal School of Art; Second, Woodhouse Bequest: C. W. Quysner, Manchester University School of Architecture; Mention: Miss M. Elce, Manchester University School of Architecture.

#### JUNIOR DESIGN PRIZE

Society's Prize: K. H. Edmondson, School of Architecture, Municipal School of Art; Mention: M. Goddard, School of Architecture, Municipal School of Art.

### I.A.A.S. LONDON AND HOME COUNTIES BRANCH

At the last meeting of the branch committee, Mr. Reginald Brown, F.I.A.A., was elected chairman of the branch for the ensuing year, and Captain Bertram C. G. Shore, F.I.A.A., deputy chairman. As it is not possible to hold the usual evening lectures, short lunch time talks have been arranged. The first is fixed for January 9, from 1 to 2 o'clock, at Headquarters, 75 Eaton Place, S.W.1. The speaker will be Mr. G. H. Smith, F.S.I., who is acting for one of the London Borough Councils in connection with air raid damage. He will deal with this subject in his talk. The branch committee will welcome visitors. Light refreshments will be provided. Intending visitors should notify the hon. branch secretary—Mr. G. W. Beach, 70 Woodcock Hill, Kenton, Harrow, Middlesex.



View of one of the blocks, showing the individual balconies to the living-rooms

## WORKING-CLASS FLATS AT BIRMINGHAM

DESIGNED BY G. GREY WORNUM AND ANTHONY TRIPLE

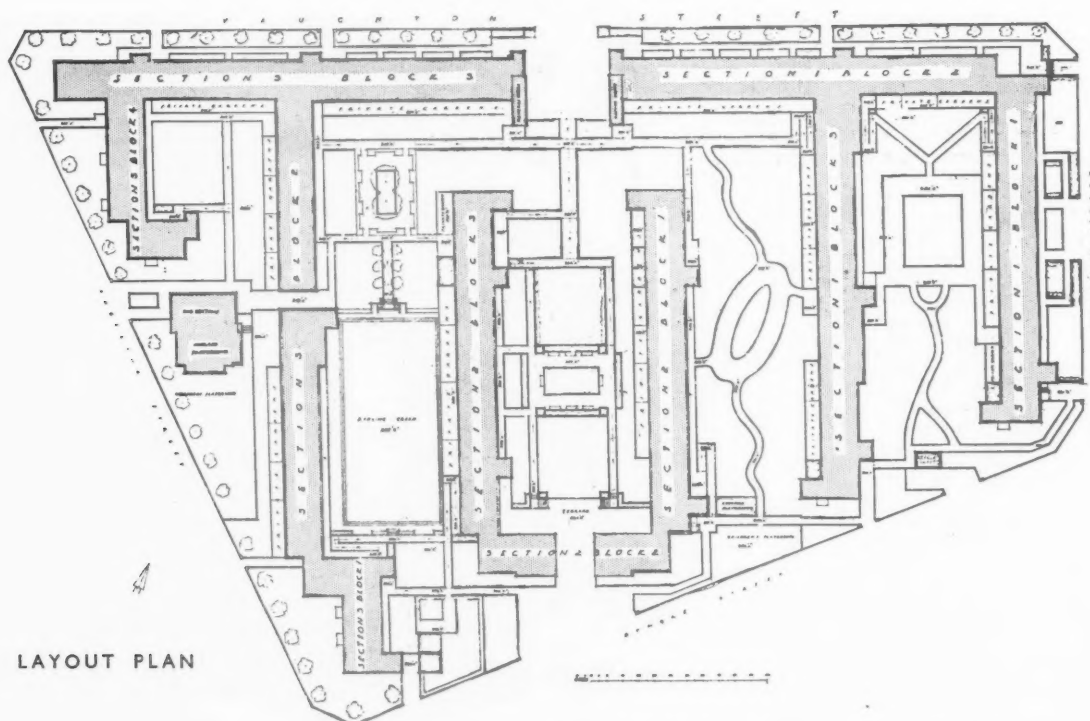
**GENERAL**—The scheme was won in open competition in 1936, and comprises 266 flats, consisting of one, two and three bedroom types. All living-rooms on the upper floors have private balconies, all those on the ground floor small private gardens. Open spaces are planned to provide public gardens, recreation grounds, a bowling green and children's playgrounds. There are pram and cycle sheds.

**CONSTRUCTION**—At the time of the competition there was a shortage of bricklayers and carpenters and the clients therefore asked for a form of construction which would largely eliminate the use of these two trades. The system used is a patent one which has been called "Clothed Concrete."

The system consists of a main reinforced concrete shell with solid slab floors and external wall 4 ins. thick. These external walls were clothed as they rose with standard slabs 2 ins. thick. These facing slabs consist of facing briquettes of water-resisting cement, cast on the site in metal moulds, backed up with approximately 1 in. thickness of concrete, into which wires were cast for tying the facing slabs back to the main 4-in. R.C. wall.

During construction, the internal shuttering of the main walls was of normal type. The facing slabs—held in position by a special rising frame—formed the external shuttering. Cleaning down and pointing of briquettes was done later.





LAYOUT PLAN

**CONSTRUCTION (cont.)**—The walls were finished internally with cork slab insulation and two coats plaster. Partitions are of 2-in. breeze, double, with 2-in. cavity, between flats. Floors are finished with composition throughout. Windows are wood casements with hopper openings. Adhesive tape, painted, has been used instead of architraves.

**INTERNAL FINISHES**—Floors are solid reinforced concrete, with a composition flooring. The floor slabs are trimmed to allow for the chimney stacks, which are of brick and built independently. Partitions: 2-in. breeze blocks; those separating flats are composed of two walls, 2 in. thick, with a 2-in. cavity. Joinery is cut down to a minimum to avoid harbour for vermin. Adhesive tape, painted, is used instead of wood architraves and has proved bug-proof.

The general contractors were Harold G. Dyke. For list of sub-contractors, see page xii.

*Below, view from the corner of Vaughton Street (left) and Leopold Street.*



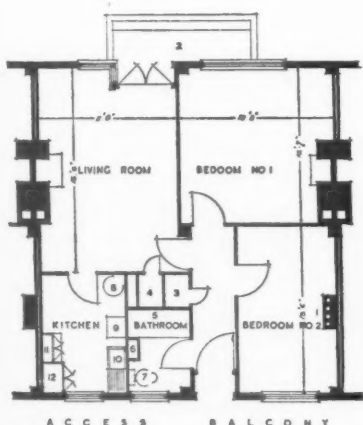
WORKING-CLASS FLATS, EMILY STREET, BIRMINGHAM:



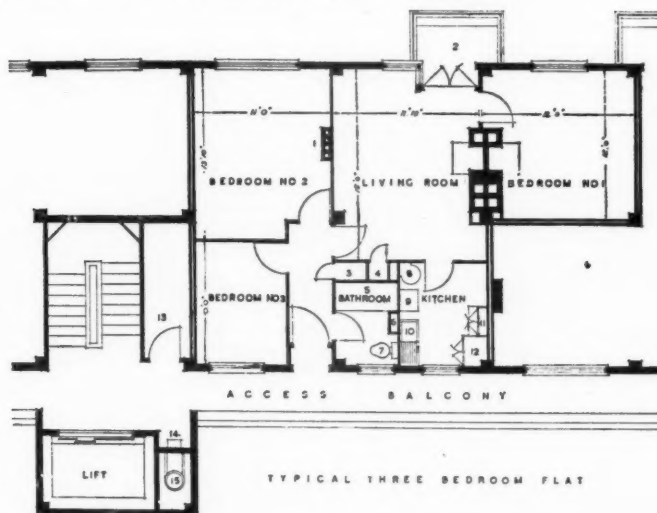
Right, detail of access balconies

KEY TO FLAT PLANS

- |                          |                              |                       |
|--------------------------|------------------------------|-----------------------|
| 1 : Gas or electric fire | 6 : Drainage duct            | 11 : Dresser          |
| 2 : Private balcony      | 7 : W.C.                     | 12 : Larder           |
| 3 : Fuel cupboard        | 8 : Wash boiler              | 13 : Service cupboard |
| 4 : Hanging cupboard     | 9 : Cooker                   | 14 : Refuse hopper    |
| 5 : Bath                 | 10 : Sink and draining board | 15 : Refuse chute     |



TYPICAL TWO BEDROOM FLAT



TYPICAL THREE BEDROOM FLAT

DESIGNED BY GREY WORNUM AND ANTHONY TRIPE

# LETTERS

## Investigation of Concrete Construction

SIR,—It is inevitable that concrete will play a greater part in building after this war than ever before, particularly in regard to house construction. In the past, proper consideration has not been given always to the best method of using concrete as a building material, and it has not been realized fully that tradition and ordinary experience are an insufficient guide if the best results are to be obtained.

In order to provide definite information and data to assist in future development, I am undertaking on behalf of the Cement and Concrete Association an investigation in regard to concrete structures, mainly at present of a domestic character—houses and flats.

The investigation is intended to cover as wide a field of experience as possible, and therefore a comprehensive list of buildings, without regard to merit, is necessary. It is in the compilation of such a list that I should like to invite the assistance of your readers.

Examples are required which have a concrete frame or have the external walls constructed of concrete in some form, either *in situ* concrete or precast concrete units. I might say that the Cement and Concrete Association have particulars of most of the examples of concrete construction which have been published in the professional and

technical Press, but there are many other examples throughout the country which are not so well known.

I should be very grateful for a note of any examples which might be useful in the investigation, with the following information :—

(1) Description of building, and, if more than one, approximate number.

(2) Location.—Sufficient information to enable example to be found.

(3) Owner, architect, builder or other authority.

(4) Type of wall construction.

The date of construction and any other relevant information would, of course, be useful.

If any reader cares to let me have an opinion on any particular form of concrete construction and suggestions as to improvement, based on experience, they also would be very much appreciated.

ARTHUR G. BRAY

Cement and Concrete Association,  
15 Turl Street, Oxford.

## Glass in Wartime

SIR,—In reference to the series of tests reported under the heading "Glass in Wartime," in THE ARCHITECTS' JOURNAL dated December 12, 1940, I would like to point out some factors which I think were overlooked in the Test No. 2 on common glass.

From my own observations, and I have no doubt others engaged on war

damage surveys will agree, I have found that owing to diagonal stresses set up in the frame, the corner panes usually break first; the panes least affected being those numbered 2, 4 6 and 8.

In the test the thinnest glass was allotted the worst positions.

The text of the report seems to imply that the later tests were carried out with the broken panes left empty, thus greatly lessening the stress on the remaining panes of glass.

NORMAN L. SMITH

DEAR SIR,

The features which my eye engage  
Encircled on your Cover Page,  
And unencircled, too, attest  
The Astragalian digest,  
Between their two positions do  
A most astounding thing—they slew.

Your older Numbers clearly show,  
Dear Sir, it was not always so.  
A time there was when, out or in,  
The poise was upright—cheek and chin  
And nose and hair and level glance  
All pointed to a normal stance.

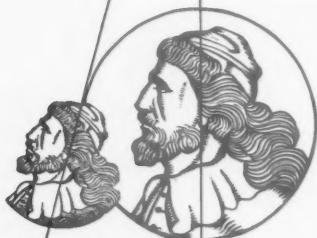
But now the page of Astragal  
Departs from habits vertical.  
I doubt whose face is given there  
Could eat his soup or climb a stair—  
There must be tilting at the knees  
Through sixteen angular degrees.

Yours faithfully,

MALCOLM MACTAGGART

[The drawing which accompanied this letter is reproduced below.—ED. A.J.]

# THE ARCHITECTS' JOURNAL



The Architects' Journal  
45 The Avenue, Chelmsford  
Telephone 141000 141001

NOTES

&

T O P I C S 45 THE AVENUE, CHEL

## BUILDING SOCIETIES AND BOMBED HOMES

The Building Societies' Association has set up a committee to consider the special treatment of mortgage accounts relating to damaged or demolished properties, it was announced by Mr. David W. Smith, Chairman of the Association and General Manager of the Halifax Building Society, speaking at Leeds on December 12. The report of the committee is expected shortly. Mr. Smith said that to expect homeless borrowers to maintain payments in their changed circumstances would be futile, but building society directors had to hold the scales fairly between borrowers and investors.

Referring to the Government's Property Insurance Bill, Mr. Smith said: "The essence of the Bill has our complete support. We acknowledge the justice of the principle that those primarily interested in property which escapes damage should contribute to make good the loss of those whose property suffers through enemy action. I am confident that the Government, in framing this very difficult and complicated measure, will spread the burden as equitably as possible over the shoulders of property-owners and taxpayers."



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PRINCIPLES AND SYSTEMS OF STEEL DOME CONSTRUCTION :

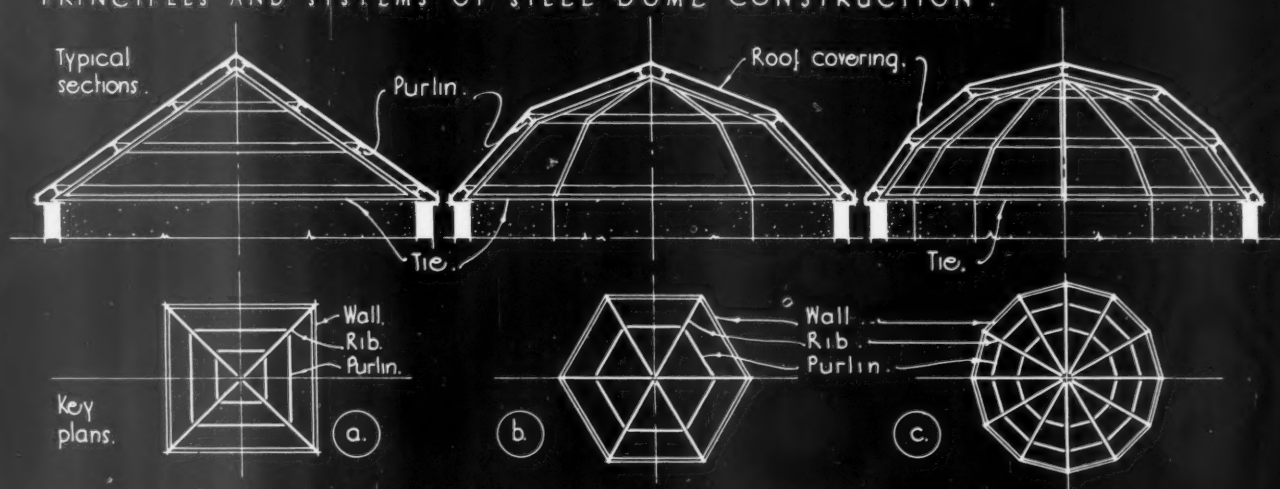


FIGURE 1 : SIMPLE ARRANGEMENTS OF STEELWORK FOR DOME PLAN SHAPES



FIGURE 2 :  
SIMPLE ARRANGEMENT  
OF TIE MEM-  
BERS TO OBTAIN  
EQUILIBRIUM.

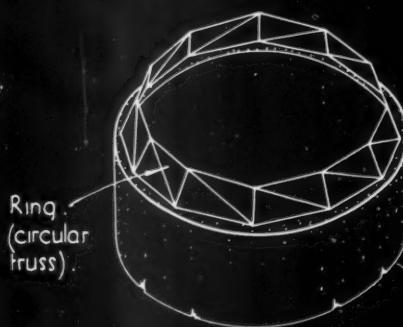


FIGURE 3a :  
USE OF DIAG-  
ONALS TO OBTAIN  
EQUAL LOAD  
DISTRIBUTION.

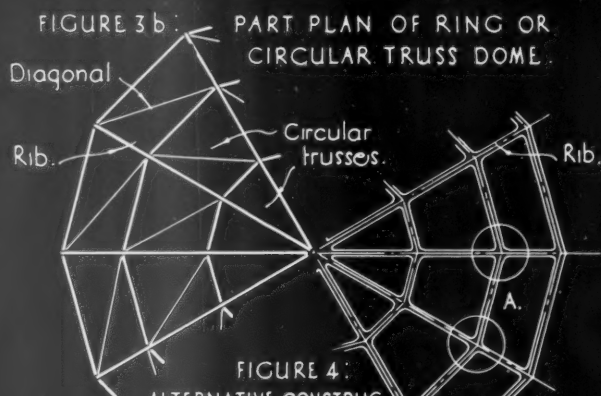


FIGURE 3b : PART PLAN OF RING OR  
CIRCULAR TRUSS DOME.

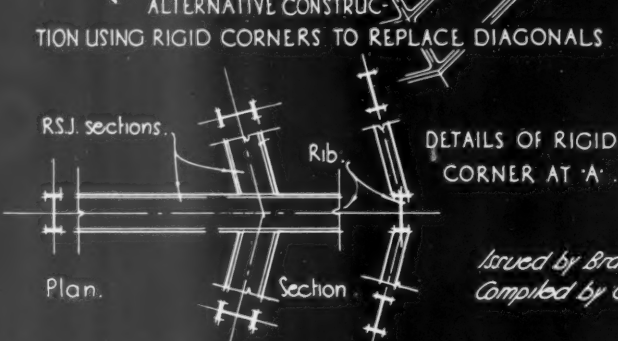


FIGURE 4 :  
ALTERNATIVE CONSTRUCTION  
USING RIGID CORNERS TO REPLACE DIAGONALS

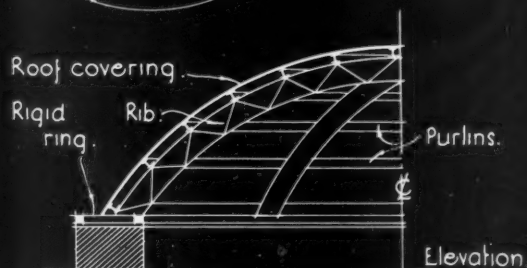
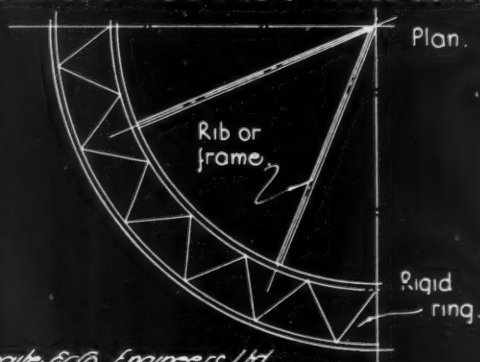


FIGURE 5 :  
EXAMPLE OF RIGID RING & FRAMED DOME.



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Compiled by C.W. Hamann, Consulting Engineer.*

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## INFORMATION SHEET

• 812 •

### STRUCTURAL STEELWORK

**Subject :** Steelwork for Roof Construction, 8 :  
Dome Construction

**General :**

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

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

This Sheet is the fortieth of the series, and illustrates the principles and systems of steel dome construction.

**Plan Shapes :**

Where the plan of a building is circular, polygonal with a regular form, or square, a roof construction entirely different from the usual is possible, and such construction may be applied also where slightly oblong, i.e. rectangular or elliptical shapes are concerned.

**Dome Construction :**

Instead of providing a certain number of single trusses, each of which is in one of a series of parallel vertical planes, members can be used which in themselves are not stable, but which get their stability by leaning against one another. In Figures 1a, 1b and 1c, the simplest cases are shown. Those of a square or hexagonal plan (Figures 1a and 1b) may be considered as a number of frames diagonal to the outline, intersecting each other in the centre. The roof suited to such a construction would be sloping in all directions, and if the plan is circular or elliptical, it would be what is commonly called a dome ; but even where the shape is different, as for instance in Figures 1a and 1b, this expression can be retained.

**Equilibrium :**

Instead of tie members being diagonal, they may be arranged around the circumference, the single parts being in equilibrium with the thrust of the frames, as shown in Figure 2. Equilibrium is based, however, on the equal distribution of loads, and where such distribution cannot be guaranteed, additional members must be arranged to balance. This can be done by introducing diagonals into the surface of the dome. Such a dome can then be considered as a combination of a number of rings, each of which constitutes a circular truss, with its upper chord identical to the lower chord of the truss above it (Figure 3a) and its lower chord identical with the upper chord of the truss below it.

Such a system is shown in Figure 3b and the members would have to transmit no bending moments, but direct stresses, i.e. compression or tension only, as in the case of ordinary trusses.

**Rigid Domes :**

The arrangement described above may be replaced by that shown in Figure 4, where the diagonals in the surface are omitted and replaced by rigid corners, thus introducing bending moments in the surface if the load is unsymmetrical.

Alternatively, the arrangement given in Figure 5 is possible, with a rigid ring and frames, the sections of which have to withstand bending moments in the ordinary way about their x-axis.

**Apex :**

It is not necessary for all frames to meet in the centre. A centre ring may be arranged, with the necessary stiffness in all directions, against which all frames lean. This centre ring, being free of obstruction internally, see Figure 3a, may be used for skylights, etc.

The system to be chosen in every single case depends on the application, but where any of the examples given can be used, it constitutes an economical method of construction.

**Previous Sheets :**

Previous Sheets of this series dealing with structural steelwork are Nos. 729, 733, 736, 737, 741, 745, 751, 755, 759, 763, 765, 769, 770, 772, 773, 774, 775, 776, 777, 780, 783, 785, 789, 790, 793, 796, 798, 799, 800, 801, 802, 804, 805, 806, 807, 808, 809, 810 and 811.

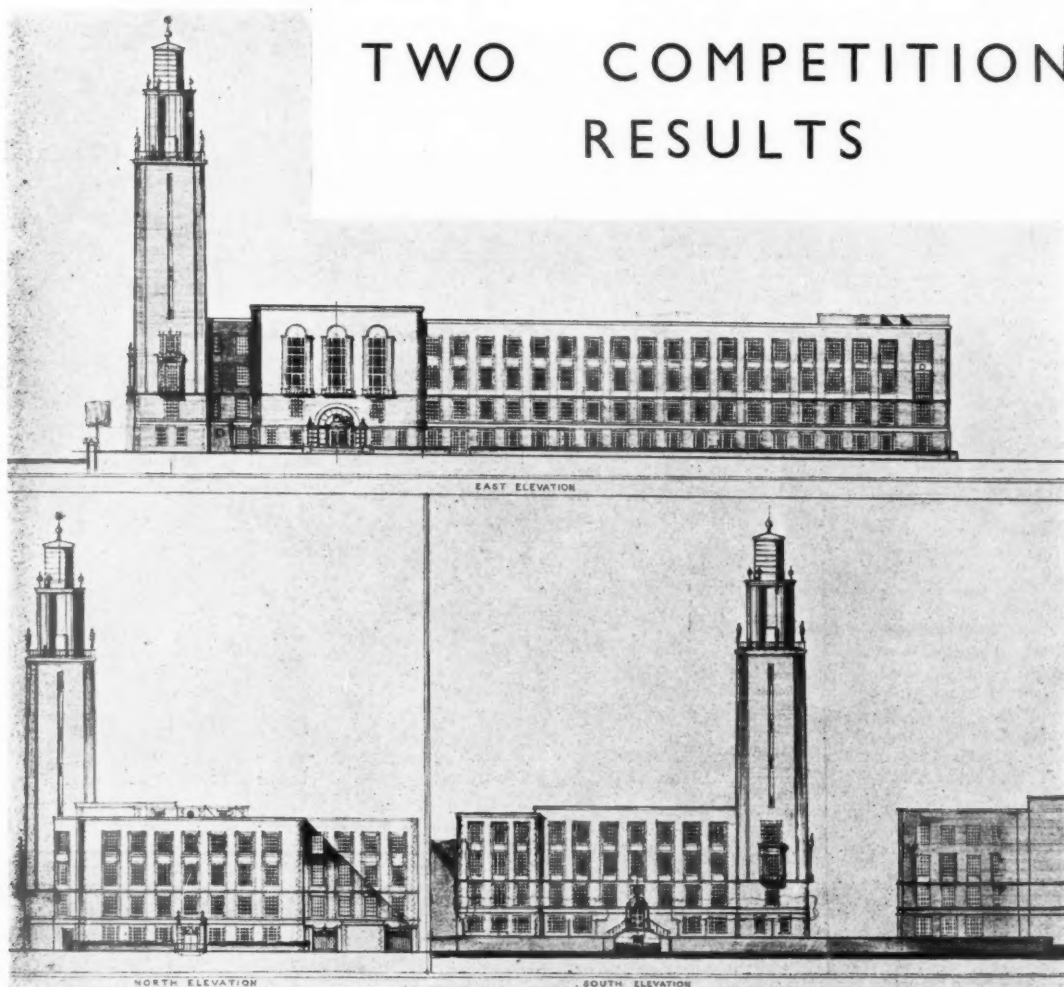
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## TWO COMPETITION RESULTS



### 1. BEDFORD TOWN HALL. BY HARVEY AND WICKS

#### THE WINNERS

**T**HE awards of the assessors in the limited competitions for designs for a Town Hall for Bedford and a Shire Hall for Bedfordshire (to be built on adjacent sites in Bedford) have been announced as follows:—

Bedford Town Hall: Messrs. Harvey and Wicks, F.R.I.B.A., of Birmingham. Assessor, Mr. H. V. Lanchester.

Bedfordshire Shire Hall: Mr. Oswald P. Milne, F.R.I.B.A. Assessor, Professor S. D. Adshead.

#### ASSESSORS' REPORTS

##### 1. BEDFORD TOWN HALL

###### MR. H. V. LANCHESTER'S REPORT

After examining carefully the five designs submitted, I have no hesitation in awarding the premium to design No. 3 (Messrs. Harvey and Wicks) as exhibiting the best appreciation of the requirements for a Town Hall suitable to the site on which it is placed. This design, both practically and artistically, has great merit, and is obviously the work of an accomplished architect. No other design has met the difficulties in planning and massing the building as well

as this. At the same time, I do not think that it would be desirable to carry out the design without modification, as there are a number of minor points on which these would enable it to conform more closely to the requirements of the Corporation; points which could not be definitely insisted on in the conditions, without unduly restricting competitors in their designs.

As explained in the joint report (see page 514), it is not practicable to provide an adequate courtyard between the Town Hall and Shire Hall; therefore, the main entrance to the Town Hall would be better placed in St. Paul's Square. This would enable the public hall to be brought down to a lower level, which would be advantageous as it is frequently required to be used independently of the council suite. The Weights and Measures Office is not well placed, as noisy work goes on here. It would be better in the north-west part of the site. Part of the tower is on ground which it has not been intended to build over, but this position is so good that it would be worth while to try and agree to it as admissible.

##### 2. BEDFORD SHIRE HALL

###### PROFESSOR S. D. ADSHEAD'S REPORT

In response to the invitation of the Bedfordshire County Council to the six architects selected to submit designs for a new Shire

Hall, five have been received. These I have examined, and have every confidence in recommending for the first premium design marked "3" (Mr. Oswald P. Milne).

The chief attraction of this design is the way in which it incorporates the present accommodation, without detriment either to the appearance of the building as a whole, its accessibility, or the relation of the different departments, the one to the other. The author of this design is obviously not the same architect as has been recommended for the Town Hall, but the two designs, as explained in the joint report, would form a pleasing contrast.

This design, though perhaps not so attractively presented as others, has easily the most interesting elevations. It has two main entrances, the more important being in the centre of the east elevation to the bridge-head. This provides a direct approach to the upper ground floor level by the outside steps; a very attractive feature. Such an entrance might be objectionable in wet weather, in which case the entrance from the north front, through the Shire Hall, could be used as a good alternative.

This design preserves and incorporates the present Council Chamber, the Shire Hall, the Law Courts and adjacent rooms, and the two committee rooms overlooking



the river on the first floor. The Clerk's private office is placed on the upper ground floor adjoining the entrance and in easy connection with the council suite. Some exchange of rooms could be made here if thought desirable without disturbing the general relation. The council chamber is approached from the council suite by a bridge. The library is placed at the west end of the building with the records over on two floors. The entrance to the library, and also to the records, is through a lobby approached directly off the Shire Hall; having regard to the somewhat exceptional use of this library, largely for storing books to be circulated throughout the county, this arrangement would seem to be quite satisfactory.

The van dock is well placed with the approach from the west court. Records is placed on the two top floors over the library, and is approached by two staircases, one at either end. The space provided is ample and the lighting is good. Other departments are well placed and conveniently arranged, the M.O. and education on the first floor and Surveyor on the second floor. The Chief Constable has his private room and offices very much where they are at present, but with a new stair and entrance from the north front. The parade room is in the basement. The main corridors do not provide complete circulation except on the ground floor through the Shire Hall and between the Law Courts. This is not necessary, as the Law Courts, the library and the records have little relation with

the County Offices. To provide complete circulation on all floors would involve an unnecessary extravagance. As mentioned in the joint report, should the Town Hall tower be erected it would be well to modify somewhat the tower placed at the south-east corner of this building. It would be better kept a little lower, and its lantern might be improved.

The methods of calculating the cost of the section of the old building which has been incorporated are different and therefore the cubes are not comparable. The estimated cost of this building at pre-war prices is £119,632, but owing to the fact that it retains all the main walls of the parts to be incorporated, it would prove to be considerably less costly than any of the other designs submitted.

### 3. SHIRE AND TOWN HALLS

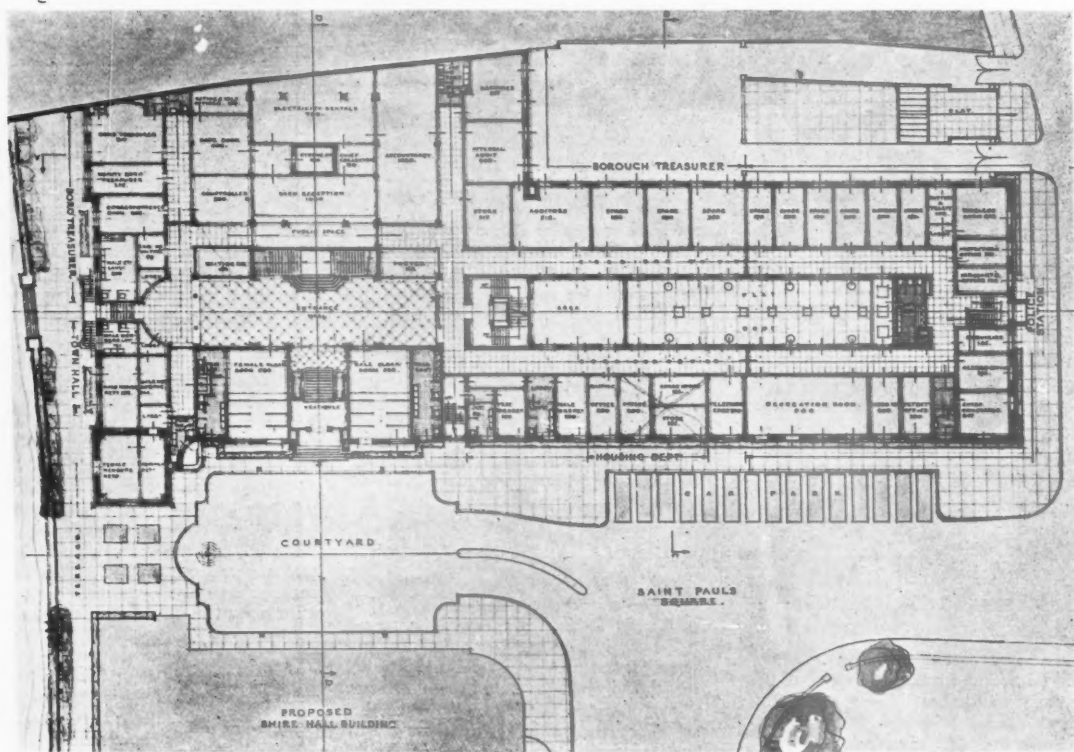
#### JOINT REPORT BY MESSRS. ADSHEAD AND LANCHESTER

Messrs. Adshead and Lanchester jointly report: In presenting our reports, we wish to point out that after in each case selecting the design which we regard as the most meritorious, we would like to add a few words as to the relation of the two buildings to each other. Each competitor has made his design for the two buildings to harmonize with one another, both as regards appearance and also as regards materials, composition and general scale. The designs which we have selected for recommendation

are by different architects, and we have therefore had to give careful consideration to their relationship in these respects.

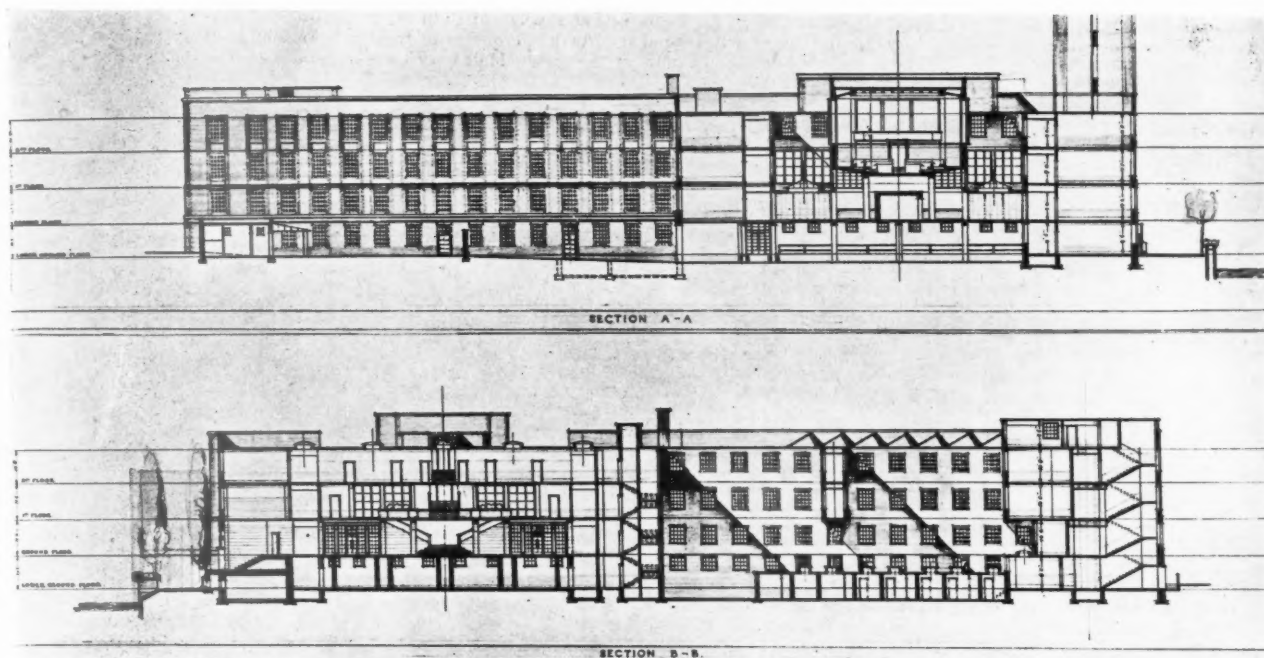
We are of opinion that as the buildings are completely detached and used for differing purposes by different owners, they need not necessarily be designed by the same architect, so long as their general mass and scale bear a proper relationship to each other. As the design selected for the Shire Hall follows the line of the west boundary, laid down in the conditions, it would not be feasible to set it back as shown in the design for the Shire Hall proposed by the premiated architect for the Town Hall, who has planned a courtyard approach to the Town Hall. We consider, therefore, that this feature in his scheme must be abandoned.

As regards the relative height of the two selected designs, these are the same, so that the skyline along the river front would be continuous—a factor not without importance to the general effect. In the premiated design for the Shire Hall there is a low tower at the south-east corner of the site, which would form a fitting termination to the bridgehead. In the premiated design for the Town Hall there is a tower of commanding proportions at the south-east corner of the Town Hall. We consider that by somewhat reducing the height of the tower to the Shire Hall, these two towers would make an interesting river front and group together very well in the composition as seen from the bridge. They could not be better placed for this purpose.

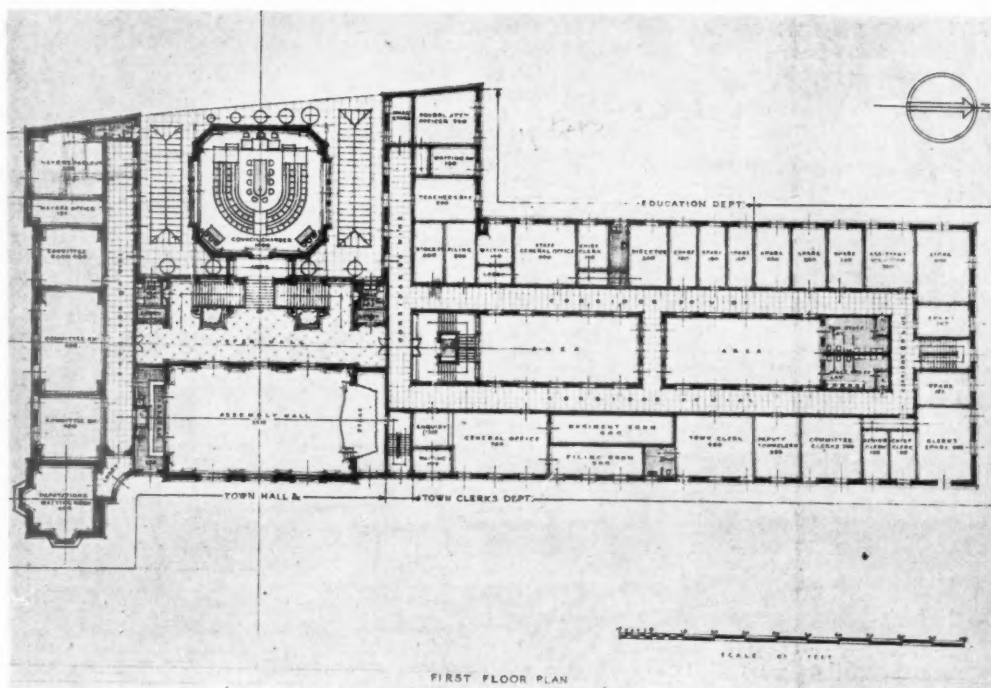


GROUND FLOOR PLAN

## I. BEDFORD TOWN HALL. BY HARVEY AND WICKS



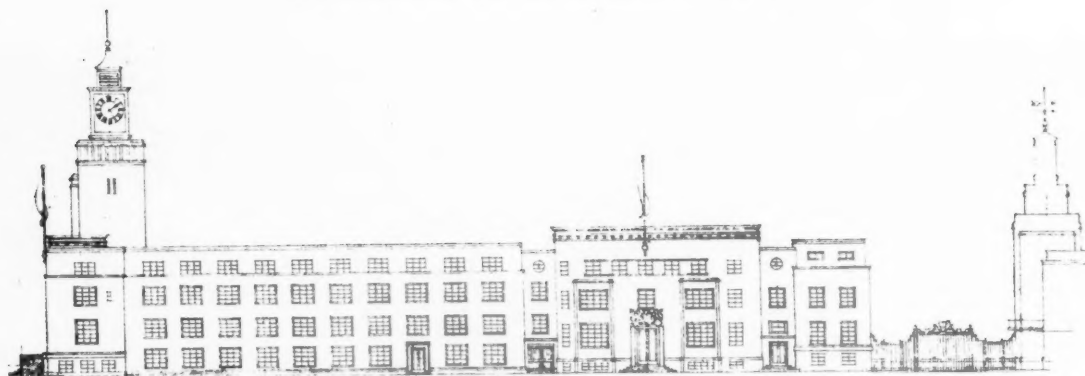
SECTIONS THROUGH COUNCIL CHAMBER AND ENTRANCE HALL



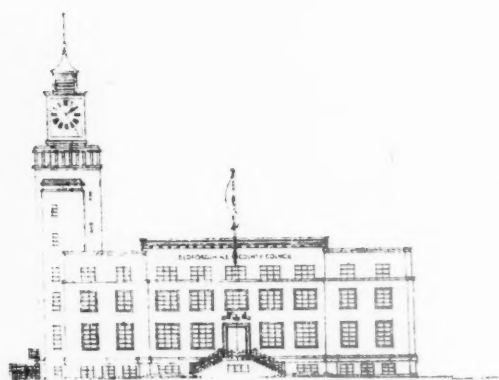
FIRST FLOOR PLAN

I: BEDFORD TOWN HALL BY HARVEY AND WICKS



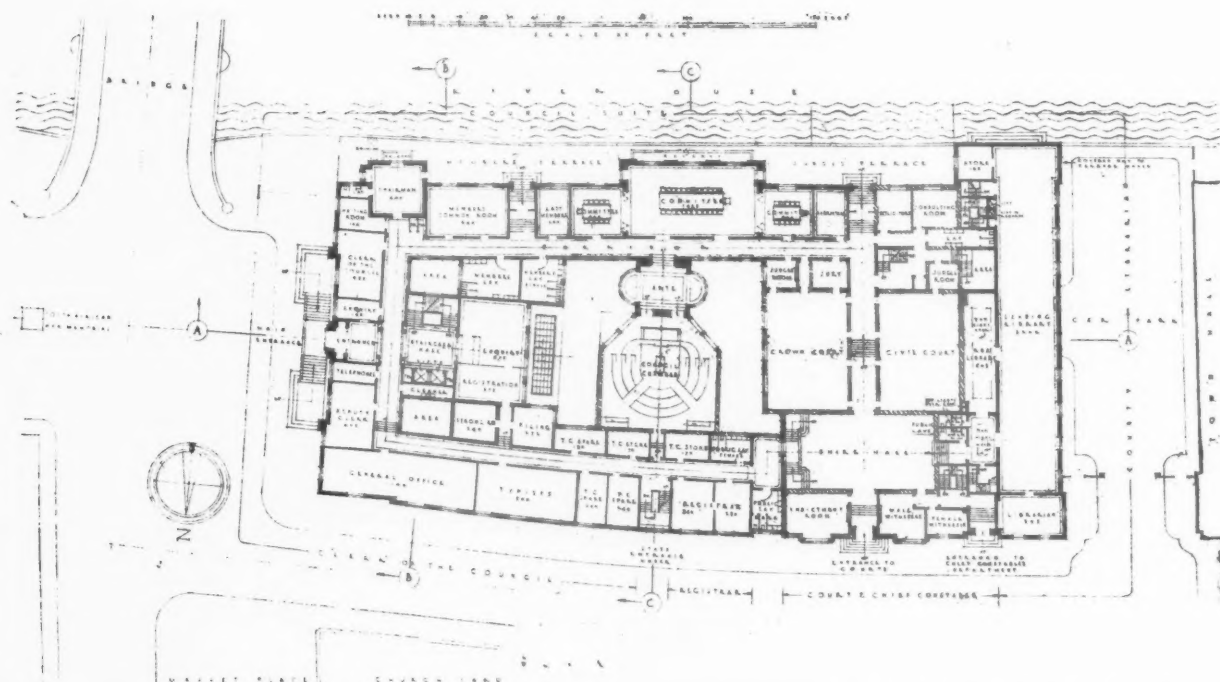


NORTH ELEVATION TO ST. PAUL'S SQUARE



ELEVATION TO HIGH STREET

2: BEDFORDSHIRE  
SHIRE HALL,  
DESIGNED BY  
OSWALD P. MILNE



GROUND FLOOR PLAN. HATCHING REPRESENTS PORTIONS OF EXISTING BUILDING  
INCORPORATED IN NEW DESIGN

## SOME QUESTIONS ANSWERED THIS WEEK:

- ★ *CAN you trace the manufacturers of a quick-set bitumastic plaster or cement which was exhibited at the 1938 Builders' Exhibition?* - Q<sub>619</sub>
- ★ *COULD you give me any information about civil jobs or war jobs? I am 24, and have just qualified as B.Arch.* - - - Q<sub>620</sub>
- ★ *IN a house constructed about six years ago the inside of the roof is infested with house flies. They have got into the cold water tank in the roof and are coming out through the hot water tap. Have you a remedy?* - - - Q<sub>622</sub>

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Enquirers do not have to wait for an answer until their question is published in the JOURNAL. Answers are sent direct to enquirers by post or telephone as soon as they have been prepared.

The service is confidential; and in no case is the identity of an enquirer disclosed to a third party. Samples and descriptive literature sent to the Information Centre by manufacturers for the use of a particular enquirer are forwarded whenever the Director of the Centre considers them likely to be of use.

Finally, if an answer does not provide all the information needed, the Centre is always glad to amplify any point on which the enquirer wants fuller explanation.

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45 THE AVENUE, CHEAM, SURREY

Telephone:

VIGILANT 0087

*or ring the Architects' Journal Information Centre at*

R E G E N T 6 8 8 8

Q<sub>619</sub>

MANUFACTURER, SURREY.—We are endeavouring to trace the manufacturers of a quick-set bitumastic plaster or cement which was exhibited at the 1938 Builders' Exhibition. As far as we remember, the exhibit staged the sealing of a leak whilst the water was actually flowing. We wish to use this product for WATERPROOFING our SHELTERS which are now extremely damp. Alternatively, if you are unable to assist us in the matter perhaps you could advise us on the question of waterproofing shelters generally.

We believe that the Sal Ferricite and Trading Co., of 748 Fulham Road, London, S.W.6, had an exhibit on similar lines to the one mentioned, as also did Sika-Francois, Ltd., of 34 Victoria Street, S.W.1. The product in question is not bitumastic in composition, but is used for sealing leaks quickly. It is not normally used for the ordinary waterproofing of walls, etc., but the same firm manufactures a different product for this purpose. Messrs. Berry Wiggins & Co., Ltd., of Cecil Chambers, 86 Strand, London, W.C.2, make a bitumastic product called "Aquaseal" and the R.I.W. Protective Products Co., Ltd., 16/17 Devonshire Square, London, E.C.2, make an asphaltum product called "Marine Cement." Both of these

products are suitable for waterproofing shelters, although we do not think they were exhibited in the manner you suggest, and it is doubtful whether the manufacturers would advocate their use for sealing a leak under considerable pressure. Should any manufacturers of bitumastic products let us know that they did have a exhibit in 1938, similar to the one mentioned, we will notify you immediately. A waterproofed cement rendering, applied to the floors and walls internally, is usually sufficient to waterproof an existing shelter, and we give the names and addresses of some additional manufacturers of waterproofers below.\* A waterproofer should be used strictly in accordance with the manufacturer's instructions. If the shelters are entirely below ground and subjected to considerable water pressure, or if, for any other reason, ordinary methods are unlikely to be successful, and some form of tanking will be necessary.

Q620

ARCHITECT, DUBLIN.—*I should be very grateful if you could give me any information about CIVIL JOBS OR WAR JOBS which might suit me. I am twenty-four, and have just qualified as B.Arch. from University College, Dublin.*

Advertisement in one of the technical journals, such as THE ARCHITECTS' JOURNAL, 45 The Avenue, Cheam, Surrey, The Architect and Building News, Rolls House, 2 Breems Buildings, London, E.C.4, or The Builder, 4 Catherine Street, Aldwych, London, W.C.2, might help you to secure a job in a private capacity, as many architects are now busy with claims for compensation for war damage. Most Government jobs for architects are available only through the Central Register, and you should write to the Royal Institute of British Architects, 66 Portland Place, London, W.1, and apply for enrolment on the Central Register (mentioning your nationality). Commissions in the Royal Engineers are usually obtainable only after serving in the ranks, when you are entitled to apply to be attached to an Officers' Training Corps Unit.

Q621

ENQUIRER, SHEFFIELD.—*I should be very grateful if you could assist me in arriving at the rough COST FOR*

\* Sika-Francois, Ltd., 39 Victoria Street, S.W.1. The Adamite Co., Ltd., Manfield House, Strand, London, W.C.2. Messrs. Kerner-Greenwood & Co., Ltd., Ann's Place, King's Lynn, Norfolk. Messrs. Geo. Lillington & Co., Ltd., 30 Denman Street, London Bridge, London, S.E.1. Messrs. Sealcrete Products, Ltd., Atlantic Works, Macbeth Street, London, W.6. Joseph Freeman, Sons & Co., Ltd., 96, Garratt Lane, S.W.18.

**TEMPORARY BUILDINGS AND REPAIRS** to existing premises by supplying me with the following information which is for keeping check on builders' accounts for work done:—  
Shuttering for concrete beams—price per square yard. Concrete 4:2:1 for beams—price per yard cube. 9-in. brickwork in cement and mortar—price per square yard. 14-in. ditto. Steel reinforcement—price per ton. 1-in. deal boarding—per square foot. 2-in. by 2-in. ditto—price per foot run. 3-in. by 2-in. ditto. 4-in. by 2-in. ditto.

We regret that we cannot give actual prices as the cost of materials varies according to the locality (particularly now, when transport is such an important factor) and "repairs" vary very considerably according to the exact type of work, e.g. rebuilding a whole wing is a very different matter from rebuilding a few feet of defective brickwork, perhaps in an awkward situation. We suggest that you refer to the Basic Schedule of Prices, compiled by Messrs. Davis and Belfield, and published on January 18, 1940, in THE ARCHITECTS' JOURNAL. Taking concrete beams as an example, you will see that the average price (given in Prices for Measured Work) is about 1s. 4d. per foot cube, of which 9½d. is for materials. This leaves 6½d. for labour and as labour rates in Sheffield are 1s. 9d. for craftsmen and 1s. 3½d. for labourers, whereas in the Basic Schedule referred to, they were 1s. 9d. and 1s. 4½d. respectively, it is hardly worth while making an

adjustment and the labour cost may still be regarded as about 6½d. per foot cube. In considering the cost of materials, you should turn to the "Market Prices" section of the Basic Schedule, where it will be seen that cement costs 41s. od. per ton, sand 8s. od. per yard cube, and ¾-in. shingle 6s. od. per yard cube, and you must then determine the difference between these prices and the current prices for materials in Sheffield. Presumably your builder will supply you with receipted invoices for materials if requested. Even if it is beyond your powers to analyse the materials factor still further it should be possible for you to work out approximate prices. For instance, as the materials cost 9½d. an increase of 10 per cent. would make a difference of approximately 1d.

Assuming that the difference between current prices in Sheffield and the Basic Schedule prices amounts to an increase of 10 per cent. on materials, your analysis would be as below†. You will note that no market price has been filled in for shuttering as we are not in a position to say exactly what materials Messrs. Davis and Belfield used as a basis for the "Measured Rate." The same principle applies, however, and if you can ascertain from the timber merchant the approximate increase in price during the war, you can increase the materials factor of the "Measured Rate" by the same percentages. So far, you have only obtained prices for a new job of average size, and there are several other points to be borne in mind. If the job is a very small one

	Per foot cube	
	s.	d.
† Materials cost in Basic Schedule .. .. .	0	9½
Increase in cost 10 per cent. .. .. .	0	1
Labour cost (deduced from Basic Schedule) .. .. .	0	6½
Reduction in cost (negligible) .. .. .	—	—
Current price for average new job in Sheffield .. .. .	1	5

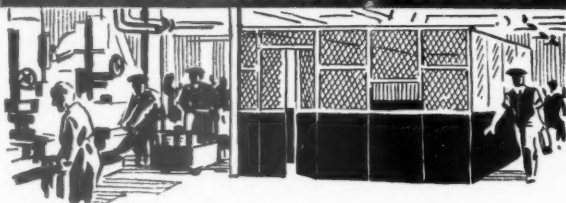
The other items you mention can be calculated in the same way, and in case you have not got a copy of the Schedule referred to, we will quote from it:—

PRICES FOR MEASURED WORK				Market Prices
	Materials		Labour	
	s.	d.	s.	d.
Shuttering to beams per ft. sup.	0	2½	0	3½
Fletton brickwork in cement mortar—				
13½-in. .. per yd. sup.	9	9	6	7½
9-in. .. per yd. sup.	6	6	4	4½
¾-in. Steel rods .. per cwt.	14	9	6	0
1-in. roof boarding per square	25	7	7	9
4-in. by 3-in. and 4-in. by 2-in. in stud partition per ft. cube	2	11½	2	1½

Bricks, 46s. 3d. per 1,000 plus 4s. 3d. for delivery.  
Cement, 41s. od. per ton.  
Sand, 7s. 6d. per yd. cube.  
¾-in. Rods, 12s. 9d. per cwt.  
1-in. boarding 21s. od. per square.  
4-in. by 2-in. scantling, 2s. 6d. per ft. cube.  
4 in. by 3-in. scantling, 2s. 8d. per ft. cube.

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the builder might want as much as 30 per cent. for overhead charges and profit (frequent journeys, taking particulars, supervision, etc.) instead of the 10 per cent. allowed in the schedule, and each price would have to be adjusted accordingly. The materials might also have to be bought in small quantities, but you would have already taken care of this contingency if you had based your prices on receipted invoices for materials. If the job is of a reasonable size but certain portions of the work are small or in confined situations, it might take the workmen perhaps three times as long as straightforward work. In such a case the labour factor would have to be increased by a corresponding percentage, although the cost of materials and the rate of profit, etc., would remain the same. Such matters as these can only be assessed by an experienced estimator conversant with all the factors affecting the job.

## Q622

ARCHITECT, KING'S LYNN.—Can you tell me of A REMEDY FOR HOUSE FLIES? The problem, I have is this. In a new house constructed about five or six years ago, my client informs me

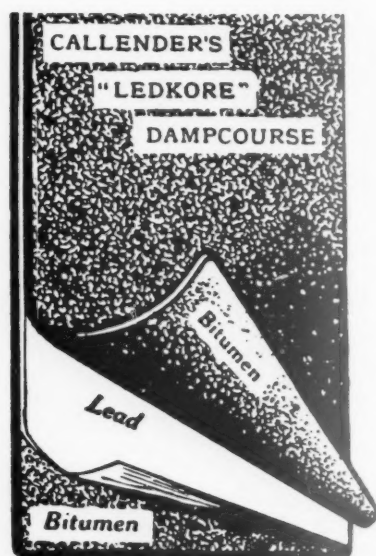
that the whole of the inside of the roof is infested with house flies, so much so, that they have got into the cold water tank in the roof, which supplies the domestic hot water system, and the flies are coming out through the hot water tap. Presumably what is wanted is some treatment to kill them off and prevent them from coming—something presumably in the nature of a spray. Can you help?

The flies are one of two or three species similar to the house fly, but are not disease carriers and, therefore, do not constitute a danger to health except when they fall into the water supply. The flies come into the house to hibernate, and may come out at odd times during the winter when the temperature rises. As a complete cure is difficult, it is suggested that the tank should first be covered, preferably with fairly heavy boarding bedded on felt so that there are no cracks through which the flies can crawl. The most effective way of dealing with the flies is to take an ordinary vacuum cleaner and suck them up through the "furniture" nozzle attached to the flexible hose. Spraying may also be resorted to with any of the sprays on the market or dusting with Pyrethrum powder or fumigating with sulphur. If spraying or fumigating is adopted, the room

should be heated before carrying out the treatment to wake up the flies. After treatment, the flies should be swept up and burned in case any are merely stupified. In order to make recurrence of the swarm next year less likely, it would be as well to treat the woodwork with crude creosote, this should be done in late July or early August, before the swarm appears.

## THE BUILDINGS ILLUSTRATED

FLATS, BIRMINGHAM (pages 509-511). Architects, G. Grey Wornum and Anthony Tripe. The general contractors were Harold G. Dyke. Among the sub-contractors were the following: Trussed Concrete Steel Co., Ltd., reinforced concrete; C. W. Norris, Ltd., joinery; Marryat and Scott, Ltd., passenger lifts; Etna Lighting and Heating Co., Ltd., electrical installation; A. E. Shaw, heating, hot water, plumbing, and gas-fitter; Baldwins (Birmingham), Ltd., sanitary fittings; A. Offer and Son, plasterers; Taylor Pearce & Co., and Nettlefold and Sons, Ltd., ironmongery; Hill and Smith, Ltd., balcony railings; Bigwood Bros., staircase balustrades; The Rothervale Manufacturing Co., Ltd., flush doors; Thomas Ash & Co., Ltd., refuse hoppers; Stonart Asbestos Flooring Co., Ltd., flooring; Ascot Gas Water Heaters, Ltd., sink heaters; Hurry Water Heater Co., gas coppers; Burco, Ltd., electric coppers; Peerless Kitchen Cabinets, Ltd., kitchen fittings.



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

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

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

## Architectural Appointments Vacant

Advertisements from Architects requiring Assistants or Draughtsmen, and from Assistants and Draughtsmen seeking positions in Architects' offices will be printed in "The Architects' Journal" free of charge until further notice. Other "Appointments Vacant" and "Wanted" will be found under later headings, and are subject to the charges given under each heading.

Wherever possible prospective employers are urged to give in their advertisement full information about the duty and responsibilities involved, the location of the office, and the salary offered. The inclusion of the Advertiser's name in lieu of a box number is welcomed.

**LADY DRAUGHTSMAN** required for large multiple firm. Must be conversant with full routine of architect's office, including 1/4 in. scale in working of drawings, surveys, inspection of work in progress, builders' accounts, etc. Write, stating full details, to Box 12.

**ARCHITECTS REQUIRE** capable Assistant, exempt from military service. Working drawings and specifications, industrial buildings, A.R.P., war damage. Must be experienced and have good references. Salary up to 16 6s. Watson and Johnson, Architects, 5 Victoria Square, Birmingham. 162

**LONDON ARCHITECTS** require assistant for restoration of damaged property. Knowledge of reports and pricing an advantage. Reply, stating age, training, experience, salary required, and when disengaged, to Box 163.

**WORCESTER ARCHITECT** requires junior Lady Assistant with at least 2 years' experience. Time for study. Box 167.

## Architectural Appointments Wanted

**CLERK OF WORKS** requires post, town or country; 25 years in allied building trades; reinforced concrete, steel and brick structures, etc.; measuring, etc.; architects', municipal surveyors' and engineers' testimonials and references; over military age; rendered war service during 1914-18 Great War; salary to mutual arrangement. Box 127.

**CLERK OF WORKS** requires an appointment; just completed 10 years' engagement with L.M.S. Railway Co.; salary mutual. Box 130.

**DRAUGHTSMAN** (23) requires position with builder or contractor, preferably S.W. England; good experience including 2 years on Government contracts; available at fairly short notice. Box 137.

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**WOMAN** of 18; good education; studying architecture when war came, would like position in architect's office as general assistant; salary not of first importance, but Surrey, near Reigate, preferred. Box 143.

**PART-TIME WORK WANTED** by Qualified Architect and Surveyor, willing to assist other architects in preparation of sketch plans, surveys, working drawings, specifications, perspective sketches, assessment of claims for war damage compensation, etc., etc.; terms by arrangement. Box 152.

**SURVEYOR**, age 39, many years' experience on the staff of a Local Government Authority (County Surveyor's Department) requires part-time post with a Chartered Architect in order to gain further architectural experience, West End London preferred. Box 157.

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## Other Appointments Wanted

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The Proprietors of *The Architects' Journal* have placed this space at the disposal of the **British Legion Officers' Association Employment Bureau**, 20 Grosvenor Gardens, London, S.W.1 (Tel.: Sloane 2315), to whom all replies should be addressed, quoting number of advertisement, date of insertion, and the name of this paper.

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Classified Advertisements continued on page xvi.

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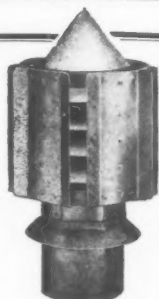
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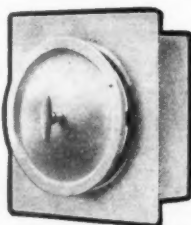
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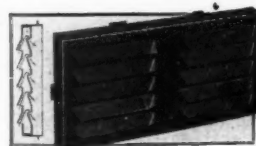
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