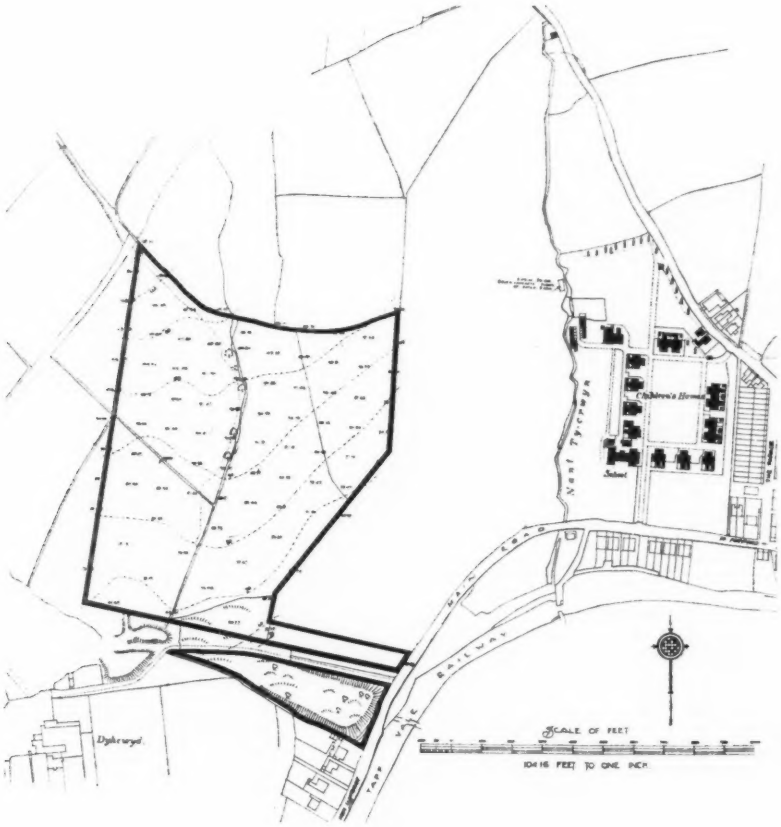
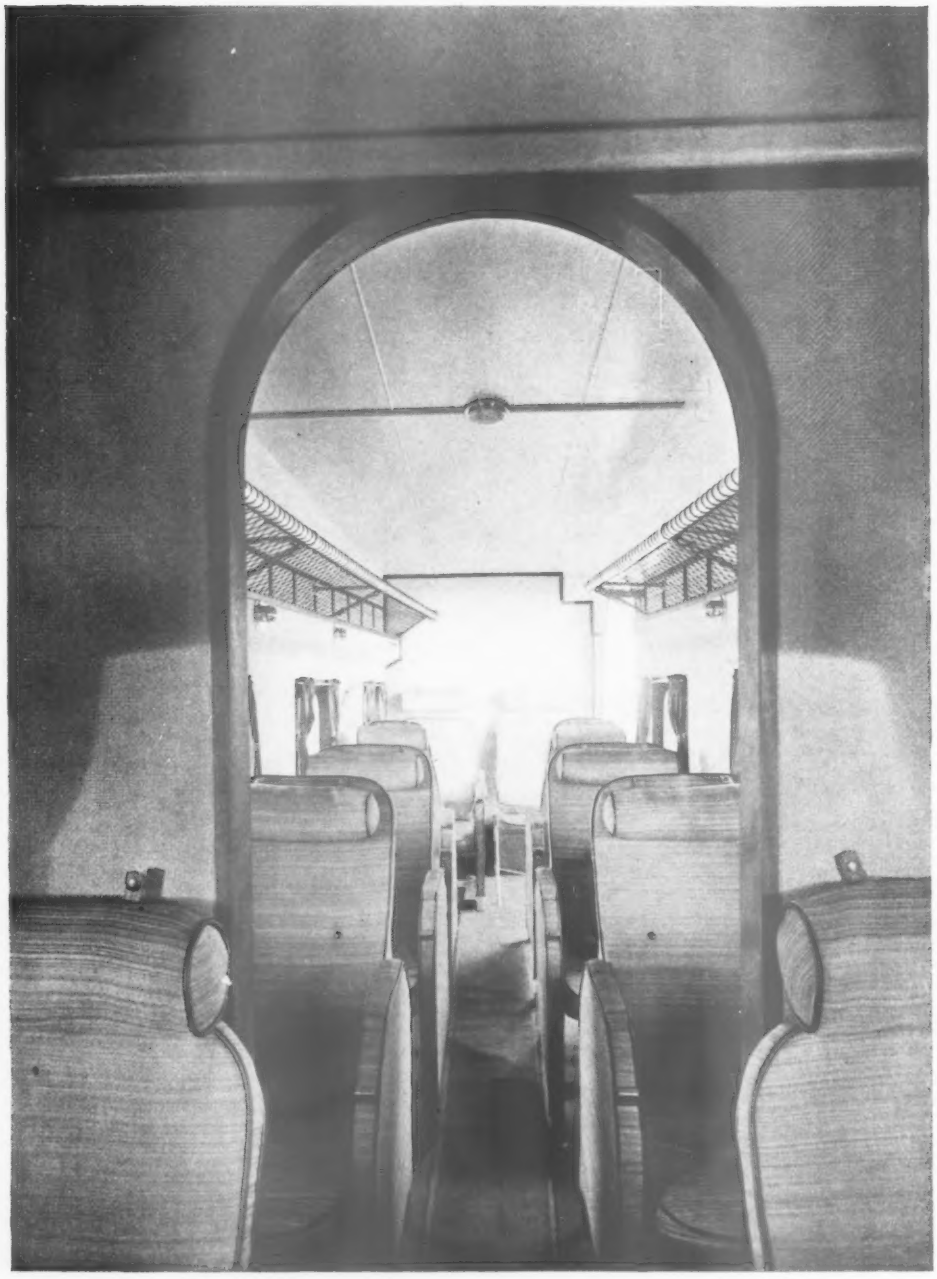
# OPEN COMPETITION

## *HOSPITAL AT PONTYPRIDD*

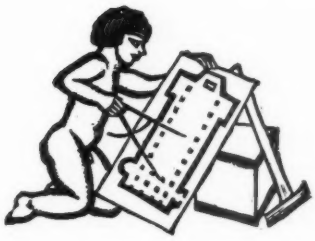



*THE site plan issued with the conditions of the open competition for a proposed General Hospital at Church Village, near Pontypridd, for the Glamorgan County Council. The conditions are reviewed on pages 259-260 of this issue.*



## AIR INTERIOR

*An example of a clean and simple design produced without any deliberate attempt at "decoration." The constructors of this machine, a Potez 62, provided a bare shell with a specified performance. The engineers of Air France arranged the interior fittings and seating; upholstery is cream with a faint blue line, the carpet is dark blue. These machines, which were brought into service during the last winter, carry 14 passengers and a crew of 3 at a cruising speed of 175 m.p.h., completing the journey from Paris to Marseilles in 3¼ hours, including a stop of half an hour at Lyon.*



# EDUCATION

THE correspondence on architectural education which has been appearing in the JOURNAL must by now have been at least noticed by most of its readers.

The size of this correspondence, which grows week by week, would seem to prove by itself that the subject is one on which strong feelings are held by very many people and that there may be good reasons for a thoughtful scrutiny of the existing system. But this is by no means the whole of a very complicated story.

Architects in practice may have come to different opinions as they have read, or merely glanced at, the letters that have been published. Whether veterans of the profession, or amongst those who have just and thankfully passed their last qualifying examinations, architects are prone to busy about their own affairs. The thoughts of many may have been casual about the whole matter. That it is time something was done ; that students should work harder and air their grievances less ; that students are not nearly as well trained nowadays as they used to be ; and that, anyway, the question is one to be fought out between students and the staffs of architectural schools—such are some of the feelings which the correspondence on architectural education may have aroused.

A conviction of students that their training is bad is by itself only a sign of healthy vitality, but an intimate association between the students, the educational system and the final practice in any profession is an obvious necessity. Once the conditions of practice have changed it is time to re-examine the educational system.

It would, therefore, seem worth while, however crudely and shortly, to try to see whether the causes of present dissatisfactions can be traced back to an altered practice.

To do this with fairness one must look back—at least, to the war. And there can thereafter be little doubt that the times we live in, the times social and architectural, are not free from blame for a terribly complex situation.

The increasing importance of industry and commerce, and the far more even distribution of wealth, can be called the first villains of the piece. These have transformed the single architectural patron into the group-client, the board, committee or whatnot that is our usual patron today.

Then the growth of fast transport, high labour costs and higher standards of living have so speeded up the once leisurely livelihood of architecture that the single architect has followed his single client almost out of existence ; local materials in becoming almost sentimental anachronisms have both diminished the practical value of scholarship and made architectural practice more nationally uniform. Today that practice is a group affair almost universally. For the moment it may be a group of principal and assistants, but all the signs of the age point to this being transitional.

Architecture is now becoming too large a business for one man to be master of all of it. In the gradual specialization of town-planning and structural engineering this has already been admitted. The further subdivisions of planning, construction and equipment —with design a part of all of them—are now passing from prophecy into realization, of which the increase of the numbers of salaried architects is only one sign.

These changes alone, if they are indications of permanent developments, would justify equally large changes in architectural education. A consequence of them, however, has affected the architectural schools more directly.

The articled pupil is becoming a greater rarity. Architectural offices are too busy to allow of a student being trained sufficiently thoroughly. Part-time attendance at a school is now almost universal when geographical position allows of it, and with the passing of the Registration Act the recognized schools will become more and more the sole route of entering the profession.

If this survey is true, however inexactly, the importance of achieving the best possible system of training in the architectural schools needs no additional emphasis. Architectural practice has changed. Are the schools busy preparing their students for the new ways or the old ? A scrutiny of representative answers almost compels the doubting comment : " It is really all very difficult." But the matter cannot rest there.

The students maintain, with some show of reason, that obsolete ideas are still too much in evidence ; that the isolated artist conception of an architect is still fatally present ; and that no sufficient effort is made to supplement the general education of students by lectures or reading on economics, local government, transport and architectural legislation which will affect them very nearly in their future practice.

School staffs are aware of these things, but their responsibility is twofold : to prepare the student for future developments whilst at the same time equipping him to earn his living in the muddled and contradictory architectural world of today. Failure in either task would have tragic consequences.

The search for the best possible compromise would be easier, and the students' present dissatisfaction would be more accurately assessed, if the views of those of authority in architectural education were to be made available to the profession.

*The Architects' Journal*
*Westminster, S.W.1*
*Telephones: Whitehall*
*9212-7*
*Telegrams*
*Buildable*
*Parl*
*London*

# NOTES & TOPICS

OVERCROWDING

THE local authorities of England and Wales are now engaged upon the gigantic task of ascertaining the number of dwelling houses that are overcrowded according to the standard of two to a room laid down by the Housing Act, 1935.

*

The first stage in the programme is now nearing completion. By April 1 next it is expected that, with one or two exceptions, the local authorities will have completed their door-to-door inspection of the houses in their areas. They will then have two months' respite in which to collate the information for submission to the Ministry of Health. Finally, by August 1, the authorities are asked to submit their proposals to remedy the overcrowding revealed by the survey.

*

It all appears so very simple. But is it? The plan seems absolutely fool-proof; yet plans, when entrusted to local authorities, have a bad habit of not functioning according to schedule. However, we must not condemn—nor praise—the scheme until we are able faithfully to judge it. Meanwhile, I understand from an official of the Ministry of Health that "there is no reason to doubt that the schemes will be carried out according to schedule, several local authorities having already completed the first stage of the programme."

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So I hope that the press rumours that the survey has been "given to local councillors to do in their spare time" is a little bit of editorial lightheartedness.

PUTTING THE CART BEFORE THE HORSE

The General Purposes Committee of the London County Council admits that a case can be made for the view that the fire protection of Greater London would be more efficient if the means of fire prevention were organized under a single command. It also admits that equally good cases exist in connection with other services (town planning leaps to the mind at once) but it considers that the creation of an *ad hoc* authority is undesirable, in that it would have "grave repercussions on the structure, stability and comprehensiveness of normal local government machinery." So it seems that one rational organization is to be forbidden, in order not to imperil the disorganization of the rest.

AN ILL WIND . . . .

There is more than one proverb which tells us that almost any situation has its bright side if we look for it carefully enough, and though it has taken a long time to show itself, there may even be a small one hiding amongst the international complications that now have Italy as a centre.

*

For it is rumoured that exports of marble from that country are falling off, and that some deliveries will soon be very difficult to guarantee. Marble, appropriately used, can be one of the finest materials, but I confess that I will not be very sorry if the pallid blocks so popular for gravestones become more difficult to obtain.

VISIBILITY

It would, perhaps, be unjust to attribute to marble a chief share of the blame for the appalling appearance of cemeteries, but amongst all the ghastliness of wax flowers, cast-iron, Gothic lettering and *nil nisi bonum*, white marble is easily the biggest eye-catcher, and therefore most hardly forgiven.

HOLIDAY INTERESTS

High Wycombe, for instance. I don't know the population of this small town, but its mortality has the appearance of being stupendous. Approached from the direction of Naphill or Great Hampden, the cemetery, which appears to be at least a mile in length, sprawls along the hillside above the town like a sharp fall of snow. And closer inspection shows that the lay-out, like some town halls, leaves ample space for future extensions.

*

High Wycombe is a great centre for walking in the Chilterns, and the substitution of, say, green slate for white marble would not only encourage home industries, but would allow visitors' thoughts to avoid exclusive concentration on the next world.

CINEMA DECORATION

A day or two ago I received a copy of a cinema trade paper, and whilst glancing through it, I noticed a page with the intriguing heading "Architecture Revolutionized—Technique of Appeal." The article dealt in the main with the decoration of cinemas, which I gathered should aim at providing an air of warmth and comfort.

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The article referred disparagingly to the decoration of music halls, "with their fripperies and masses of absurd enrichment" or words to that effect.

*

No doubt the decoration of many music halls is absurd, but, I think, it tends to create a more exciting and stimulating atmosphere, and one in which the audience is very much more alert than it is in the "warmth and comfort" atmosphere of the modern "super."

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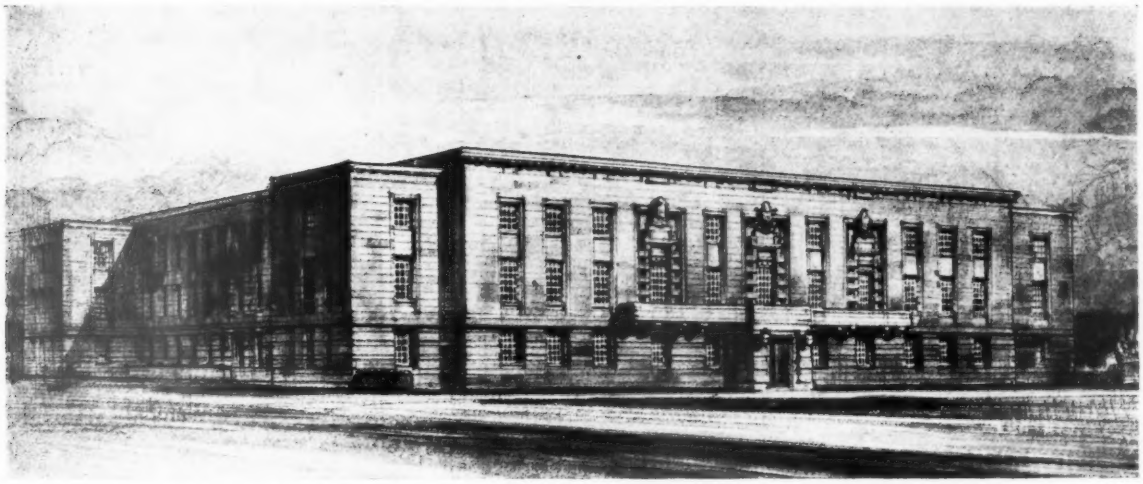
I believe that the soporific effect produced by the kind



*A perspective of the winning scheme, by Reginald Edmonds, in the recent competition for a proposed town hall at Bury.*

of lighting and decoration found in cinemas may well account, to some extent at least, for the general toleration of the enormous amount of nonsense shown on the screen.

*

The next step in warmth and comfort, I expect, will be to provide couches and to project the films on to the ceiling, but this advance may be delayed until some means of lowering the illuminated organs and through the ceiling is evolved.

R.I.B.A. EXHIBITIONS

On Wednesday next the Earl of Derby opens the exhibition of Everyday Things at the R.I.B.A. I have already been able to see many of the exhibits, as well as the general exhibition lay-out which L. H. Bucknell has prepared, and shall expect a really high standard next week.

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The idea behind this exhibition is an excellent one . . . to show the public what the architect can do as a *selector* of furniture and fittings for the inexpensive house. Incidentally the show will introduce the public to a large range of mass-produced articles of selected design, and in some cases will reveal the architect as designer of these machine-made goods.

*

I regret very much that the Exhibition will only be open for three weeks in London, but am half consoled by the fact that it will subsequently travel round the country for exhibition at a good many important provincial centres.

GUIDES

During the last few days I have seen reports of the great increase, in recent years, of the number of foreign visitors. As a great number of these visitors spend much time in or about the historic buildings of London and the country it seems to me that a good supply of reliable guides who know something about architecture would be a very desirable thing.

*

It may be that there are such guides, but from what I have heard of them about Westminster Abbey and the Houses of Parliament many are little better, if at all, than the guide I heard by the Colosseum in Rome, who said: "The top tier is decorated by the Ionic order, the middle tier by the Doric order and the lower by the Corinthian order, for such was always the subtle way of the Ancients."

YOUTH

During the last year or two I have been interested and invigorated to note that the leaders of our Schools of Architecture have reduced their age by some thirty years or so.

*

Cordingley to the professorship at Manchester, then Allen to Leeds, and Edwards to Durham. Recently I hear of the announcement that Holford, until recently but a student toying with the perplexities of the Rome Scholarship, is in October next to take up the Lever Chair in Civic Design at the Liverpool School.

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Nearer home we have Rowse and Thornton White as Principal and Vice-Principal of the A.A. School.

*

All this will have one simple result . . . closer contact between students and staff, and therefore better education. I almost wish I were a student again.

ASTRAGAL

*A NEW FEATURE*

*On February 27, the* JOURNAL *will begin publication of a new series devoted to the Planning of specialized building types. The first section of this series will examine the planning of municipal offices, assembly halls and law courts under the general heading of* TOWN HALLS. *The section will comprise plans and sections of buildings of acknowledged merit specially drawn for purposes of reference; of sketch plans including most of the municipal schemes completed during the last fifteen years; and of illustrated articles in note form dealing with the most modern practice in both the broad and detailed planning of the building type dealt with.*

*It is intended that this section should eventually form a concise and up-to-date reference book on all aspects of the planning of* TOWN HALLS.

# NEWS

## POINTS FROM THIS ISSUE



### *GUILDFORD CATHEDRAL*

The Bishop of Guildford (Dr. J. V. Macmillan) has issued a statement regarding the plans for the new Cathedral. In the course of this he observes :

"It has now been decided to proceed with the making of the approaches, the laying of the foundations, and the building of the first part of the Cathedral—choir, transept, and central crossing—accommodating a congregation of 1,000 people. This will cost approximately £94,000. This is a large sum, but the work will be carried on as money comes in at a quicker or slower pace."

### *ARTERIAL ROAD PROTEST*

The Brentford and Chiswick Town Council is petitioning against the proposed new arterial road from Kensington to the Chiswick end of the Great West Road on the ground that it is unnecessary for the Borough and would destroy the character of residential districts.

The Hammersmith and Chiswick Improvement Society, which is being advised by Mr. R. A. Duncan, A.R.I.B.A., is urging that the public should be given at least a year to consider the scheme.

An alternative suggestion is that the road should be built over the District Railway.

Mr. R. A. Duncan, in a letter to the *Observer*, states that one of the chief objections to the scheme is that the proposed road would cross two main north and south traffic routes, the Hammersmith Bridge Road and the Fulham Palace Road at a point some 150 feet from the Broadway, thus creating another congestion point within a stone's throw and so close as to render the creation of roundabouts impossible.

So far as Hammersmith is concerned, the arterial road will, he says, have the following effects :—

1. Ultimate dislocation of the trading community.
2. Loss of nine acres of land to the borough, the disturbance of approximately a further 120 acres, and loss of rateable value.
3. Destruction of the historical character and amenities of one of the most interesting parts of the riverside.

In the opinion of many town-planning and traffic experts it will not, it is added, solve the problem and will cost at least two and a half millions.

## THE ARCHITECTS' DIARY

**Thursday, February 13**

INTERNATIONAL EXHIBITION OF CHINESE ART. *At the Royal Academy, Burlington House, Piccadilly, W.1.*

NORFOLK AND NORWICH ASSOCIATION OF ARCHITECTS. *Annual Dinner. At the Maid's Head Hotel, Norwich.* 7.15 *p.m.*

INSTITUTION OF STRUCTURAL ENGINEERS, 10 *Upper Belgrave Street, S.W.1.* "*The San Francisco Bay Bridge.*" *By Professor J. Husband.* 6.30 *p.m.*

ARCHITECTURAL ASSOCIATION, 36 *Bedford Square, W.C.1. Exhibition of work carried out in Spain by A.A. Students temporarily attached to Madrid University who have recently returned. The work includes photographs and drawings. Until Feb.* 18.

BUILDING CENTRE, 158 *New Bond Street W.1. Exhibition of Lead Sheet and Pipe Work. Until Feb.* 24. *Also, Exhibition of drawings, models and photographs of buildings, erected from the designs of women architects. Until February* 29, 10 *a.m. to* 6 *p.m. (Saturdays,* 10 *a.m. to* 1 *p.m.)*

**Friday, February 14**

TOWN PLANNING INSTITUTE. *At Caxton Hall, Caxton Street, Westminster, S.W.1.* "*The Work of a Planning Officer.*" *By H. Robinson.* 6 *p.m.*

ROYAL SANITARY INSTITUTE. *At the Pump Room, Bath.* "*Some Problems of Water Supply.*" *By F. P. Sissons ; and* "*Smoke Abatement—Industrial and Domestic.*" *By A. Tyler.* 5 *p.m.*

INSTITUTE OF WELDING. *Midland Branch. At the James Watt Memorial Institute, Birmingham.* "*Some Scientific Fallacies, Paradoxes and Peculiarities.*" *By Dr. D. S. Anderson.* 7.15 *p.m.*

**Saturday, February 15**

INSTITUTION OF STRUCTURAL ENGINEERS. *Western Counties Branch. Annual Branch Dinner. At the Grand Hotel, Bristol.*

**Monday, February 17**

INSTITUTION OF STRUCTURAL ENGINEERS. *Midland Counties Branch. At the James Watt Memorial Institute, Birmingham.* "*The Influence of Direct Labour on the Design and Construction of Small Highway Bridges.*" *By C. O. L. Gibbons.* 6.30 *p.m.*

INSTITUTE OF HEATING AND VENTILATING ENGINEERS. *London and District Branch. At the Borough Polytechnic, Borough Road, S.E.1.* "*Gas Water Heaters.*" *By E. G. Brooks.* 7 *p.m.*

**Tuesday, February 18**

HOUSING CENTRE, 13 *Suffolk Street, S.W.1.* "*Manchester Gives a Lead.*" *By Sir Ernest Simon.* 8.15 *p.m.*

INSTITUTE OF WELDING. *North Eastern (Tyneside Branch). At Neville Hall, Westgate Road, Newcastle-upon-Tyne.* "*The Behaviour of the Arc.*" *By E. B. Nixon.* 7 *p.m.*

ST. PAUL'S ECCLESIASTICAL SOCIETY. *At the R.I.B.A., 66 Portland Place, W.1.* "*Lincoln Cathedral.*" *By A. W. Mason.* 8 *p.m.*

**Wednesday, February 19**

INSTITUTION OF STRUCTURAL ENGINEERS. *Scottish Branch. At 129 Bath Street, Glasgow.* "*Economical Cinema Design.*" *By J. Fairweather.* 7.15 *p.m.*

LIGHTING SERVICE BUREAU. *At 2 Savoy Hill, W.C.2.* "*The Application of Architectural Lighting to Existing Buildings.*" *By R. O. Sutherland. Discussion to be opened by Joseph Emberton.* 7.30 *p.m.*

*R.I.B.A., 66 Portland Place, W.1. Opening, by the Earl of Derby, of the Exhibition of "Everyday Things." The Exhibition will be open free to the public until March* 14 *from* 10 *a.m. to* 8 *p.m (Saturdays* 10 *a.m. to* 5 *p.m.)*

### *EXHIBITION AT THE BUILDING CENTRE*

An exhibition of drawings, models and photographs of buildings erected from designs by women architects (arranged in conjunction with women members of the R.I.B.A.) was opened at the Building Centre, 158 New Bond Street, on Monday, February 10. The exhibition will remain open daily until February 29, between the hours of 10 a.m. and 6 p.m. (Saturdays, 1 p.m.)

Although one or two women took up architecture as a profession before the war, it was not until after the war that the profession generally was open to them and that they entered the schools of architecture to any extent. Since 1918 a large number of women have qualified, and there are now about 125 women members of the R.I.B.A. There are, at the present time, a number in training in the various schools of architecture. In a notice issued in connection with the exhibition it is pointed out that "many women architects have married architects and are in joint practice. Although women architects have done more in domestic architecture than in any other branch, their architectural activities have by no means been confined to the building of houses. Factories, clinics, hospitals and many other types of buildings have been erected from their designs, and there is, of course, the Shakespeare Memorial Theatre at Stratford-on-Avon, carried out from the designs of Miss Elizabeth Scott, who won the competition, which was open to both British and American architects."

It is not the intention of the exhibition to suggest that there is necessarily any difference in the status of women architects and men architects, it being held by the former that there should be no distinction between the two, but that all those qualified in the profession should be referred to as "architects."

The purpose of the exhibition is to show what progress women architects have made since they were first admitted to the profession, and what their contribution has been.

### *OXFORD'S MUDDLE*

The development of Oxford was criticized by Mr. John Betjeman in an address to the Oxford Luncheon Club last week. He said the outlook, especially of the University authorities, had made a muddle in plan and style of what should be a neatly planned town. The town had been allowed to sprawl over the countryside, and the industrial part of the city to encroach on the buildings for which it was famed.

### *OVERCROWDING IN GLASGOW*

In a report issued by Glasgow Medical Officer of Health last week it is stated that, according to the standards laid down in the Housing (Scotland) Act, 1935, Glasgow has 82,109 families living in overcrowded conditions. The number of overcrowded houses is 31 per cent. of the total number of dwellings in the city, which is 276,130.

### *PROPOSAL TO APPOINT CARDIFF CITY ARCHITECT DEFEATED*

At a recent meeting of the Housing and Town Planning Committee of the Cardiff City Council a recommendation that the Department should be reorganized, and

it was decided to appoint a building manager; a proposal to appoint a city architect being defeated.

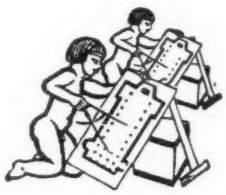
*ANNOUNCEMENT*

Messrs. J. Stanley Beard and Bennett, of 101-103 Baker Street, W.1, have opened an office in Coleridge Chambers, 177 Corporation Street, Birmingham. They have taken into partnership Mr. J. B. Cooper, A.R.I.B.A., and the Birmingham firm will be known as Messrs. Beard, Bennett and Cooper. They will be glad to receive trade catalogues at the Birmingham address.

*R.I.B.A.*

The Third Informal Annual General Meeting of the R.I.B.A. was held on Wednesday, February 12, when a discussion took place on "The Architect and the Development of Building Technique." Miss Justin Blanco White presided, and the speakers included Sir E. Owen Williams, K.B.E., Mr. George Hicks, M.P., Miss Margaret Church and Mr. R. Townsend.

*COMPETITION NEWS*



# HOSPITAL AT PONTYPRIDD

## *The Conditions Reviewed*

THIS competition is promoted by the Glamorgan County Council, which has appointed Mr. E. Stanley Hall, M.A., V.-P.R.I.B.A., and Mr. W. James Nash, F.R.I.B.A. (County Architect), to act as joint assessors.

Premiums, £500, £300 and £150.
Questions by February 28, 1936.
Sending-in date, May 29, 1936.

*The Conditions*

The conditions of this competition appear to have been admirably drawn up. They are characterized by that judicious blending of much latitude with a little preciseness which is at once the delight and despair of the competitor—not to mention the confusion of the reviewer !

To the competitor unversed in all the intricacies of hospital design this latitude may prove a stumbling block.

Room sizes, for example, are given in numerous instances not in superficial feet but in terms of prospective occupants—a fact which, while it may cause but little stir in Olympus, is sufficient to send most of us lesser mortals upon a feverish excursion through our information sheets.

The conditions are obtainable, on payment of a deposit of one guinea, from the Clerk to the County Council, Glamorgan County Hall, Cardiff, to whom also questions and the final drawings should be addressed.

*The Site*

The site proper consists of about 20 acres of open agricultural land on the southern slope of a hill. It is set well back from the main (Llantrisant-Pontypridd) road and the approach therefrom to the south-east corner of the site constitutes the sole means of access. (See site plan on page 253.)

There is a drop of some eighty feet from the north-west to the south-east, giving an average fall across the site of about 1 in 20. This is bound to influence (and complicate) planning, since changes of level on the same floor are not viewed with approval by those who go down to the theatre with trolleys.

No mention is made as to prospect—probably deliberately—so that the competitor is free to evolve his scheme within the (already considerable) limitations of aspect and contours.

The site plan is as informative as to levels as it is deficient in dimensions, but it would, perhaps, have been more helpful if the former had been related to ordnance datum instead of to the Dutch Barn.

Positions of existing services are not shown on the site plan, the conditions simply stating that they are available from the main road.

*Accommodation*

The various units comprising the scheme are (*a*) administration, (*b*) kitchens and dining rooms, (*c*) ward units, (*d*) laundry, (*e*) boiler house, ambulance, etc., (*f*) staff homes, (*g*) deputy resident medical officer's house, (*h*) mortuary and (*j*) lodge. Blocks (*a*), (*b*) and (*c*) should be interconnected by corridors, and the assessors suggest that this main group of buildings should be placed on the upper part of the site.

It is laid down that none of the buildings is to exceed two floors in height, except the staff homes, which may be of three floors. Where necessary, lifts to take one bed and three attendants are asked for in the hospital block.

Competitors are not specifically asked to make provision in their schemes for future additions (except in the case of the nurses' home and kitchen), but they would be well advised not to lose sight of the possibility of extension at a later date.

Provision is to be made in the administration block for a preliminary training school, consisting of lecture room, cookery classroom, small model ward, etc.

Dining rooms to seat 50 at one time are required for nurses and maids, and it must be possible to throw these two rooms into one when required. Dining rooms are also to be provided for the board, medical officers, male clerical staff and matron. It is noted that "the entire *staff dining rooms* are to be concentrated together near the kitchens, for economy of service."

Competitors are asked to give special attention to circulation in the kitchen department, and, in regard to the main kitchen, space must be reserved for future plant.

The number of patients' beds to be provided in the ward blocks is 310, divided as under :—

| | |
|---|---|
| (I) Surgical — 90 men, 90 women .. .. | 180 |
| (II) Medical — 30 men, 30 women .. .. | 60 |
| (III) Maternity—50 women | 50 |
| (IV) Children .. .. | 20 |
| | 310 |

Sections (I) and (II) are grouped into six surgical and two medical units, each comprised of main (18-bed), semi-private and private wards.

It is stipulated that the main wards are to be subdivided by short transverse screens, but the assessors do not indicate whether they prefer the "parallel" or "right-angle" arrangement of beds.

Each unit must be provided with a sun balcony, as well as the usual sister's duty room, ward kitchen, sink-room and other ancillary rooms.

Section (III) is to be divided into two sub-sections—one of 30 and one of 20 lying-in beds. About one-third of the accommodation of each sub-section is to consist of single-bed units, and no ward is to have more than four beds.

The operating suite is to include two theatres, two anæsthetising rooms and a common sterilizing room, together with the necessary wash-up, changing and rest rooms.

A small X-ray department is to be provided on the same floor as the theatres.

Also requiring inclusion in this block, and preferably on the ground floor thereof, are various special departments such as dental, ophthalmic, throat examination, electrical treatment and massage rooms.

The nurses' home is to accommodate 120 nurses, and it is noted that this should be so arranged as to facilitate future lateral extension. A maids' home is also required, and competitors are given the option of combining this with the nurses' home or of planning it as a separate building.

Requirements as to the laundry, boiler

house, deputy resident medical officer's house, mortuary and lodge present no unusual features and do not call for special comment.

*Drawings Required*

Drawings may be made on any size sheet, but must be mounted flat on a card or strainers. Beyond stating that " . . . elaborate or ornamental drawings are unnecessary," the assessors make no stipulation as to the matter of finishing the drawings.

They have further adopted the enlightened course of dispensing not only with that anachronism the " competition half-inch," but also its eighth-scale successor.

All drawings are to be to $\frac{1}{16}$ in. scale (with the exception of the block plan) and are as follows :

(*a*) Plans of all floors (repeats of plans need not be drawn in).

(*b*) The principal elevations.

(*c*) Comprehensive sections necessary to explain the scheme.

(*d*) Block plan to same scale as site plan accompanying conditions.

The following documents are also to be submitted :

(*e*) Report as to general character, construction and finishings of the building and other matters not apparent from the drawings.

(*f*) Estimate of cost. To be based upon cubical contents. Each block is to be taken out and priced first at 1d. per foot cube and then at the rate adopted by the competitor. Cost of roads, paths, fencing, plant, etc., is to be added. Diagrams and dimensions showing in detail how the figures are arrived at are required.

*General Notes*

No information is given with regard to probable cost, and although it is possible to state an approximate figure based on the cost per bed, such a course is—in the opinion of the reviewer—unsatisfactory and often entirely misleading.

The buildings are to be of fire-resisting construction, and the assessors suggest that " . . . the walls be of local bricks and built hollow, since there is an average annual rainfall of 50 inches." The use of flat roofs is not encouraged.

A note as to the geological formation of the site would have assisted competitors in deciding the depth of their foundations, and would, in consequence, have established some common basis for cubing. H. A. S.

# THE BURY COMPETITION

## 2 : Other Schemes

[*BY W. G. HOLFORD*]

***Of the 73 designs sent in for the Bury Town Hall Competition, the three which were premiated, and one which was highly commended by the Assessor, were reviewed in last week's issue. The remainder are reviewed here.***

A TOUR of the remaining 69 designs entered for the Bury Competition yields no surprises, and does not bring to light any design to equal that of the winner in economy of plan and composition. There are many with more interesting elevations and with plans almost as good ; but there is only one competitor (Mr. Birkin Haward, No. 50) who gets right away from the conventional symmetrical four-square type, with enclosed courts and Council Chamber, and he was probably disqualified at the outset for failing to observe certain of the conditions and designing a building four floors in height.

It is curious that no solution is offered using a completely open type of plan in a symmetrical lay-out, with projecting wings forming a forecourt on the south side, and open spaces at the angles on the north. The plan of Messrs. Bucknell and Ellis is the nearest approach to this type. It has most of the advantages of the winning plan, and in some ways would be a more pleasant building, but it is not nearly as economical.

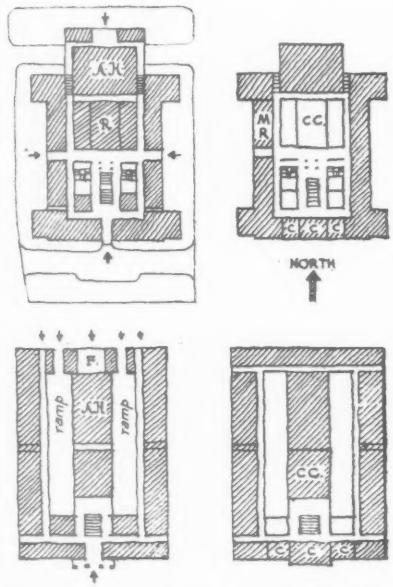
After reviewing all the unpremiated designs one comes to the conclusion that the winning design remains unchallenged, but that there are at least half a dozen schemes worthy of second place. It is of little use at this stage to cavil at the Assessor's award of the second premium, but one can at least sympathize with Messrs. Bucknell and Ellis, Messrs. Percy Thomas and Prestwich, Mr. Berry Webber, and Messrs. Crabtree and Freeman, in that their thoughtful and practical designs passed without mention or reward. Each of these schemes shows a plan as good and as simple as that of Messrs. Bradshaw Gass and Hope, and in every case the elevations are better.

The scheme submitted by Messrs. Percy Thomas and Prestwich (No. 62) has the most impressive section of any. Its 40 foot high Assembly Hall, and its fine vestibule, stairs, and reception room, have a monumental scale not attempted by any other competitor. The plan is simple and direct, the elevations impressive, and the drawings are beautifully presented.

Mr. Berry Webber's design (No. 36) is similar in plan to the one previously mentioned. Both rely on a single series of offices on a rectangular formation, with the shortest possible corridor. Both have the defect of this box-like system, in that they approach very near to the roads on three sides. Mr. Webber's plan has a corridor across the centre, making four courts instead of two, and places garages in the forecourt on the south front.

The plan already referred to, of Messrs. Bucknell and Ellis, is an interesting variant on this type. It has a projecting wing on the south containing a fine central stairway, and, on the first floor, the Committee Rooms, Members' Rooms, and Reception Room. The office wings project on the north front to form a forecourt to the entrance of the Assembly Hall, also placed on the first floor. The two interior courts are used to light the Rates Hall and the stairs to the Assembly Hall, which, together with the Council Chamber, are grouped in the centre of the building. The resulting composition is as interesting as that of the winning scheme and the south front seen from the Manchester side would look very well indeed.

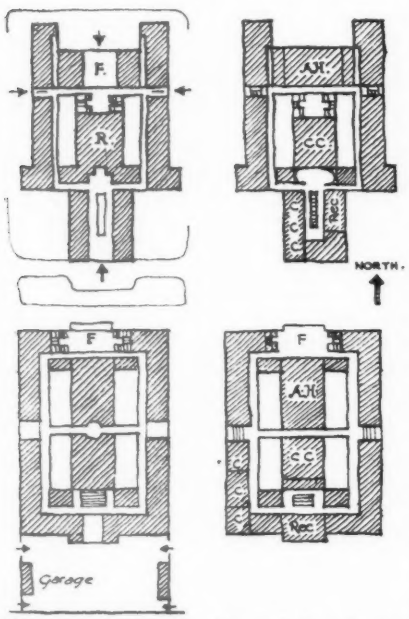
Messrs. W. Crabtree and P. Freeman show a very carefully planned design which in its elevations and in the planning of the main staircase, is reminiscent of the R.I.B.A. building in Portland Place. The plan is very much like the winner's, except that there are no projections to the office wings and consequently no setbacks. This gives rather flat façades on the east and west which, though relieved with delicate stone reliefs (in the manner of Mr. Bainbridge Copnall), are not strong enough for a building on such a site and of such a purpose. The plan, however, is worth



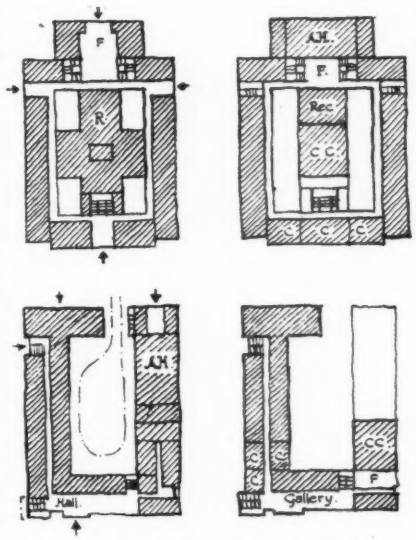

*Ground and first floor plans of the schemes by (top) R. Edmonds and (bottom) Percy Thomas and Ernest Prestwich.*

studying. It puts the Assembly Hall on the first floor, but compensates for this by providing a good foyer and ample cloaks, and a useful link with the Council Suite in the shape of a Reception Room.

The most interesting of all the designs submitted, in spite of drawbacks and conditions disregarded, is that of Mr. Birkin Haward (No. 50). He and Mr. Reginald Uren (the winner of the Hornsey Town Hall Competition) both show asymmetrical schemes grouped round a single central court, big enough to give air and light to offices which face on to it, and even, in the former case, to contain trees. Mr. Haward's scheme is uneconomical, it provides for large halls, vestibules and galleries which were not demanded in the programme. It is four floors in height, is something between Mendelsohn and the Scandinavians in character, and produces a rather unusual Council Chamber more adapted to harangue than council. But it is nevertheless an original and well-considered scheme. It has ideas and it enlarges the scope of municipal building design, which is tending to become every day more restricted—at least in England. Offices in this scheme are placed on either side of a central corridor, and the first two floors of the south front are given over to ceremonial rooms and galleries of very interesting shape and variety. The Assembly Hall is really detached from the office block and is therefore unrestricted in any way. The stairs are not very well managed, particularly the south stair with its sudden shrinkage at the first floor, but otherwise the circulation is excellent. Also worthy of notice is the structural system, with its standard beams and window frames.




*Ground and first floor plans of the schemes by (top) Bucknell and Ellis and (bottom) E. Berry Webber.*




*Ground and first floor plans of the schemes by (top) Crabtree and Freeman and (bottom) Birkin Haward.*

Mr. Uren's design (No. 21) is also interesting but does not gain so much from its lack of symmetry. The Council Chamber is projected too near Knowsley Street, and the Swedish tower does not look very much at home.

Messrs. Silcock and Thearle (No. 46) have an interesting set of drawings, with the garage on the ground floor and Assembly Hall over. The exterior is fine and plain and shows a new type of Ionic Order; but the interior courts are not open enough to be as serviceable as they are in other variations of this type of plan.

The palm for rendering goes without question to Messrs. Evans and Crossley (No. 64); but again the interior courts, of which there are four on the ground floor, create complications in planning. This is also true of Mr. Cecil Howitt's scheme (No. 69). There would be very little light, particularly in winter, in this interior. Mr. Howitt shows his Council Chamber in the centre of the south front like that of the third premiated design by Harvey Wicks and Jackson.

Mr. Kenneth Glover (No. 2) presents a good workable plan, but shows a large and rather unnecessary tower in the centre of his rectangular scheme.

Mr. Arthur Bailey's scheme (No. 3), mentioned in the Assessor's award, is a fine strong composition, with four towers, but looks twice the size of the majority of the designs submitted.

Differences in the remaining designs are of detail rather than type. There are many ordinary conventional schemes which differ from one another only in the details of the order used for the front portico. All these porticoes alike would turn the same shade of black in a few years, when exposed to the Bury atmosphere and the smoke of passing trains; which is another way of saying that one portico is as good as another.

## Public Library, Colchester

Professor A. E. Richardson, F.R.I.B.A., the assessor of the limited competition for a proposed public library for the Colchester Corporation, has made his award as follows:

Design placed first (£150): Mr. Marshall Sisson, F.R.I.B.A., of "Shermans," Dedham, Essex.

Design placed second (£125): Messrs. J. H. Parker and S. J. Marshall, AA.R.I.B.A., of 21 Grimsdyke Crescent, Barnet, Herts.

Design placed third (£75): Messrs. J. and W. H. Saunders, AA.R.I.B.A., of 19 Cotswold Road, Westcliff-on-Sea.

The competition was limited to members of the Essex, Cambridgeshire and Hertfordshire Society of Architects. The first and second premiated designs are reproduced on pages 262-263. Following are some extracts from the report presented by the author of the winning scheme:

*Building in Relation to the Site:* The building is placed centrally on the site with a court on each side. The staff and service entrance is approached from one court, and the basement cycle store and external staircase to the lecture hall and green room by the entrance to the other court.

*Planning:* The building has been planned compactly with a view to economy, convenience in working and adequate supervision.

CONSTRUCTION AND MATERIALS

*Foundations:* In view of the disturbed nature of the site and the necessity for somewhat deep foundations, a system of concrete beams on pier foundations is suggested.

*Walls:* Brickwork: multi-coloured hand-made sand-faced facings with Portland stone dressings. Selected reds used for quoins and panels.

*Floors:* Ground Floor: reinforced concrete. First Floor: fireproof hollow tile.

*Roof:* Reinforced concrete flat with asphalt finish.

*Internal Finish:* Hard plaster.

*Flooring:* Entrance Hall: rubber tile. Library Rooms: battleship linoleum. Lecture Hall: hardwood.

*Windows:* Wood sashes.

*Heating:* Low pressure hot water.

*Ventilation:* Natural throughout, assisted by auxiliary fans in the lecture hall.

*Lighting:* Diffused semi-indirect electric lighting in all rooms.

Estimated Cost: 316,011 feet cube at 1s. 3d. = £19,751.

## Pavilion at Rothesay

Col. J. Maurice Arthur, the assessor of the competition (limited to architects resident or practising in Scotland during the past two years) for a proposed pavilion at Rothesay, has made his award as follows:

Design placed first (£200): Messrs. J. and J. A. Carrick, of Ayr.

Design placed second (£100): Messrs. Charles E. Tweedie and Sons, of Edinburgh.

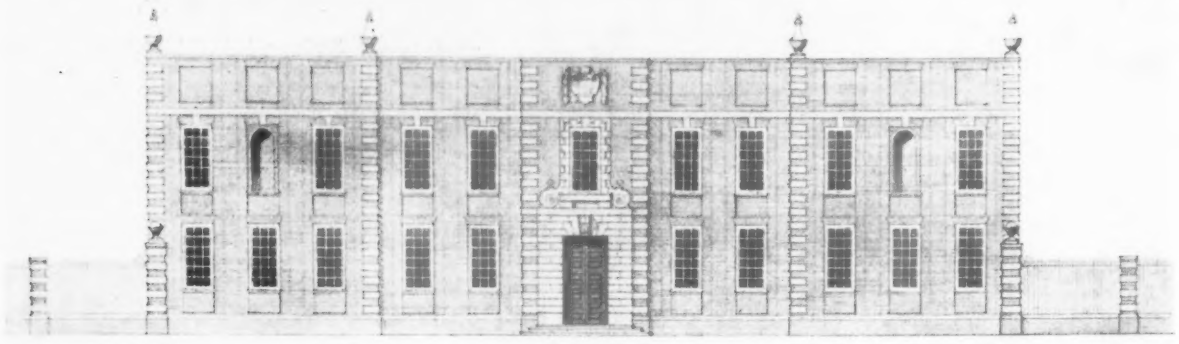
Design placed third (£50): Messrs. Weddle and Inglis, of Glasgow.

Twenty-four designs were submitted.

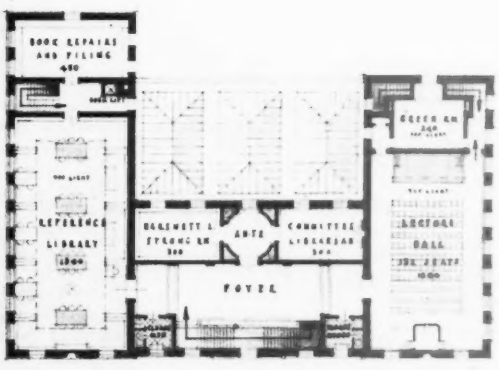
## Central Baths, Leeds

The Leeds Corporation has decided to hold a competition for the erection of central baths in the vicinity of Eastgate.

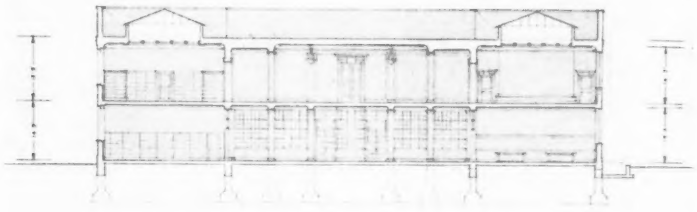
# COMPETITION FOR PROPOSED PUBLIC LIBRARY,



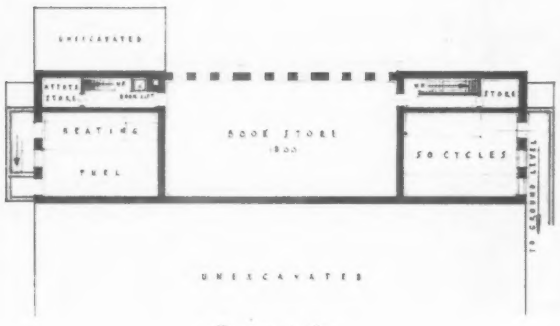
*The main elevation.*




*First floor plan.*

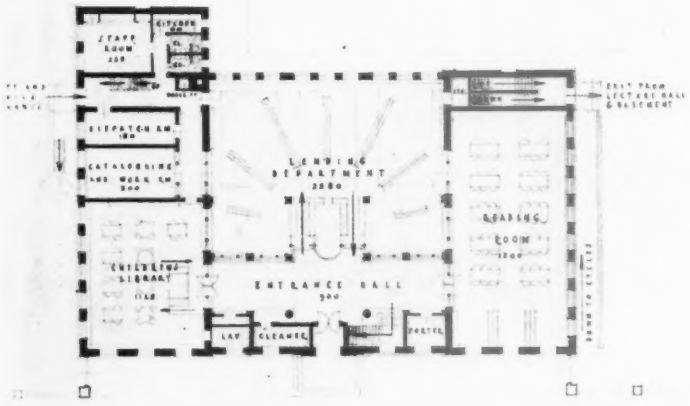


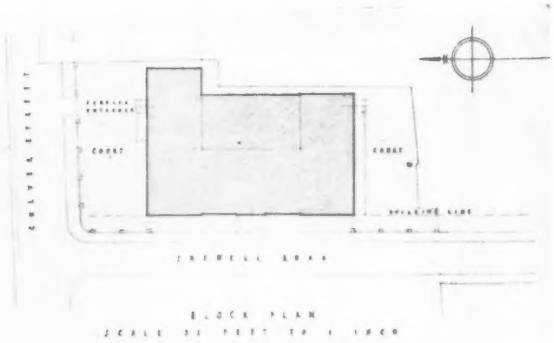
*Longitudinal section.*




*Basement plan.*

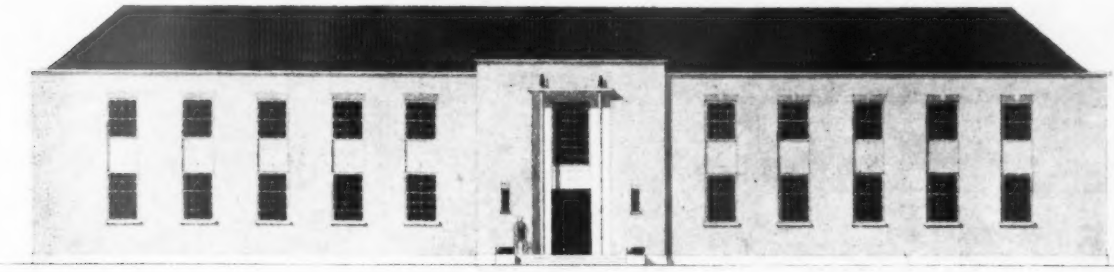
**DESIGN PLACED FIRST: BY MARSHALL SISSON**



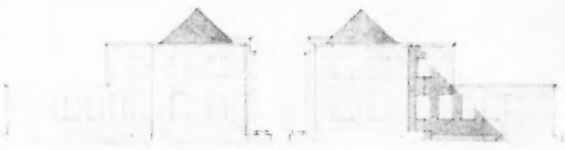

*Left: ground floor plan; above, site plan.*

# COLCHESTER: THE PREMIATED DESIGNS

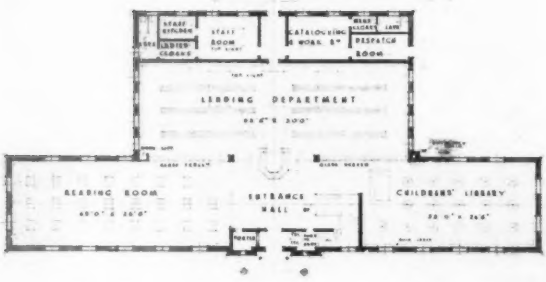


ELEVATION TO MAYWELL ROAD

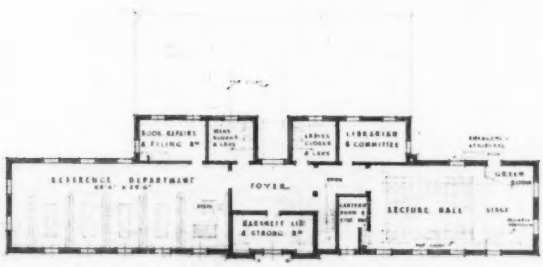
BACK ELEVATION



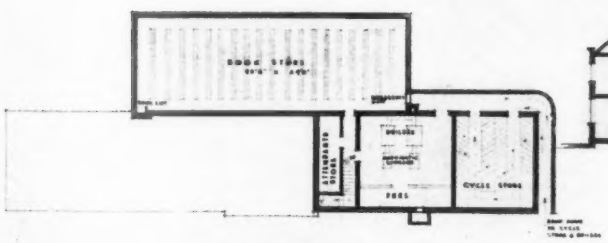
NORTH ELEVATION SOUTH ELEVATION



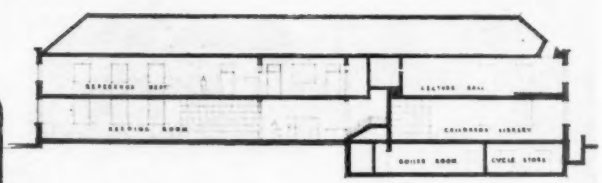

GROUND FLOOR PLAN



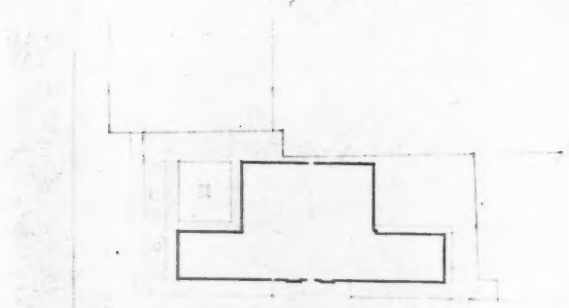

FIRST FLOOR PLAN




BASEMENT PLAN



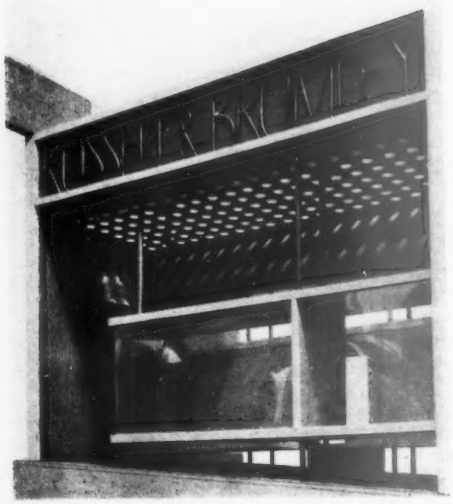
SECTION A - B



*DESIGN PLACED SECOND:*

*BY J. H. PARKER AND S. J. MARSHALL*

# SHOE SHOP AT TUNBRIDGE

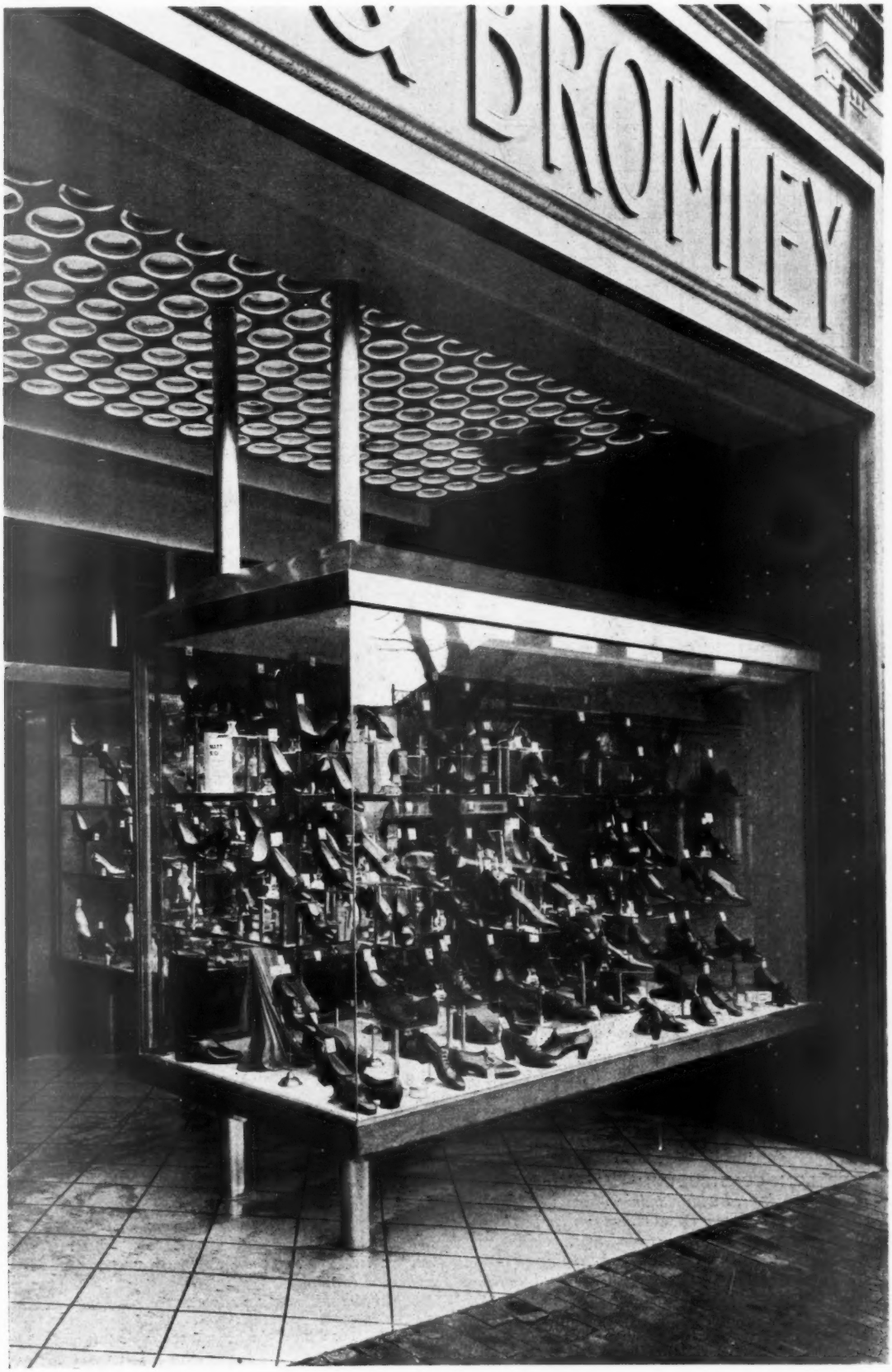
**GENERAL PROBLEM.**—*Shop to sell shoes.*

**SITE.**—*The street before the shop falls sharply and this has been considered in designing the front. The metal-faced wall on the higher side of the shop has been stepped up to emphasize the fall, and the glass-concrete roof of the entrance show-space is a very prominent part of the design when seen from lower down the street.*

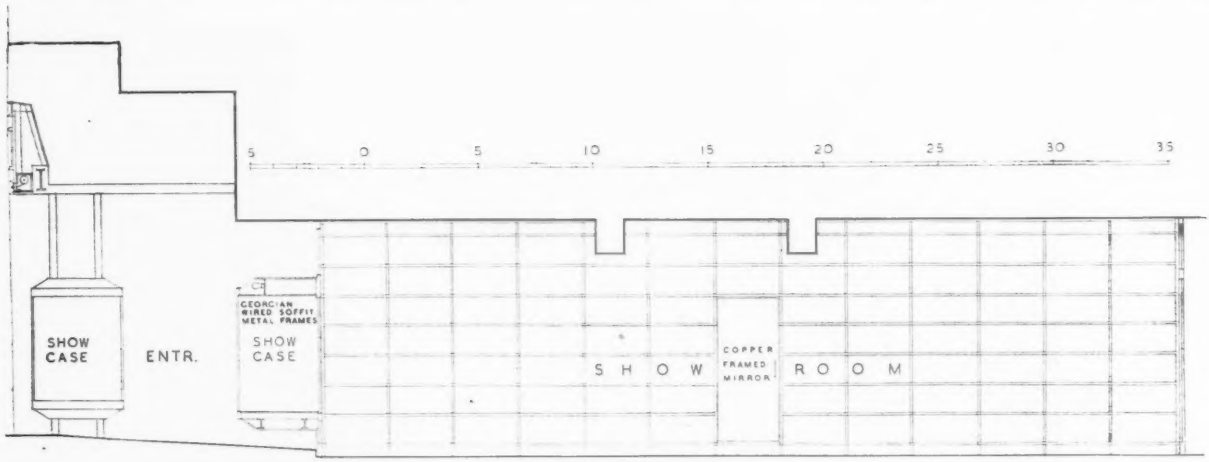
**ELEVATIONAL TREATMENT**—*The clients at first expressed a wish that the shop-front should follow closely the traditional work in the neighbourhood, but later consented to the treatment shown. The results from the business point of view have been extremely satisfactory.*

*Above is a detail of the shop-front as completed, and, on the left, a model prepared to judge the effect of the treatment contemplated. On the facing page is a detail of one of the showcases.*

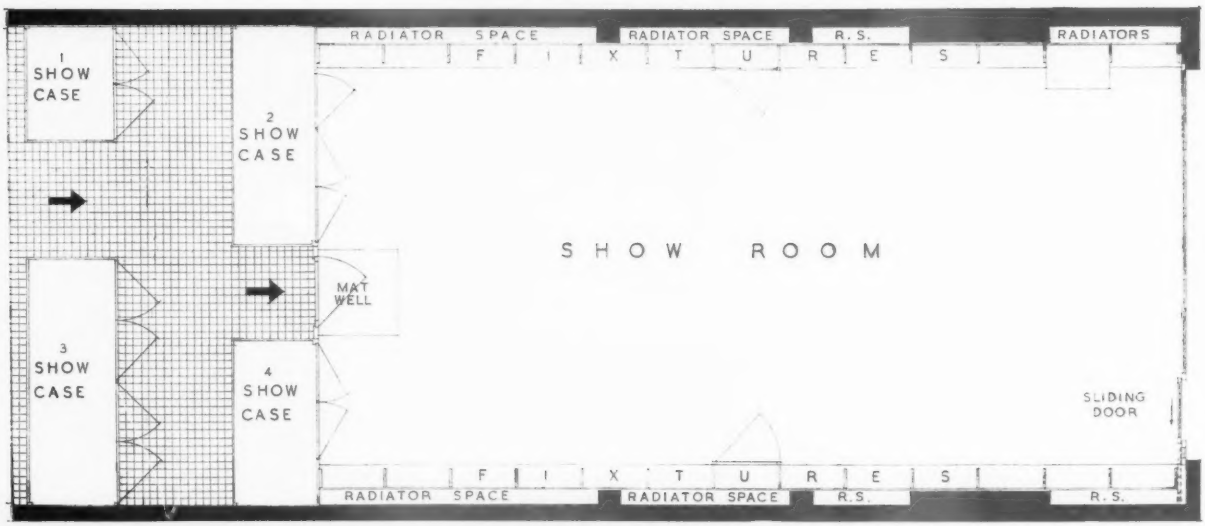
WELLS, KENT: BY CLIVE ENTWISTLE



# SHOE SHOP AT TUNBRIDGE




SECTION




PLAN

**SHOP-FRONT CONSTRUCTION**—*The side walls are of bronze-faced plywood, fixed with aluminium-headed bolts. The show-case framing is of bronze sheet drawn over hardwood. Columns carrying cases are of stainless steel tube. Ceiling to lobby of glass-concrete. Fascia is bronze and lettering of stainless steel. The backs of showcases are matt-cellulosed eau-de-nil, and screen between shop and lobby is of wired glass.*

**THE SHOP.**—*Carpeting is light beige seamless Axminster, ceiling of plaster. Chairs are of laminated birch upholstered in Venetian red mohair. Tables are polished birch. Metal finishes to screens and doors are of polished copper and anodized aluminium. Glass-concrete rear window is glazed with cross-reeded glass, and the opening sashes and sliding door with acid-etched plate.*

*On this page are reproduced a plan and section of the building.*

For a list of the general and sub-contractors see page 284.

# WELLS, KENT: BY CLIVE ENTWISTLE

RADIATORS.—*The heating radiators are behind the stock-shelves, grilles being in the plinth and above the fitting in order to allow for circulation of warmed air.*

*Above is a general view of the shop, looking towards the entrance. Right, a detail of the glass-concrete screen, opening sashes, and sliding-door at the rear of the shop.*

# LETTERS FROM READERS

## Students and Building Materials

WALTER GOODESMITH, A.R.I.B.A., A.T.C.

SIR,—"Student's" letter published in your issue for January 30 is extremely interesting inasmuch as it indicates progressive thought for his next step from senior student to "a man with a job to do in an office." His suggestions for remedies, however, are somewhat impracticable and savour of spoon-feeding methods.

Students must not expect to be spoon-fed in the matter of receiving notification of new materials. Nor must they imagine that the practising architect adopts this method. They must take the initiative and go forth to explore for themselves, realizing that the student of yesterday had few of the facilities that are available to the student of today. They would do well also to understand that no practising architect receives notification of more than a scant representation of every new material, object or new method, unless he is known to be interested or initiates an enquiry for the latest information available. It is as well to remember that a large proportion of materials cannot be transported to an architect's office for inspection, let alone be adequately shown in catalogues. Therefore, the necessity arises of providing some central place for the proper display of materials. Herein lies a solution for the student within reach of London. The Building Centre, proving its value to the building world by its recent large extensions, should be used by the student as he would use an architectural library, or, better still, regular visits should be paid to the Centre to enable him to keep abreast of new developments. The student should see and handle materials obtaining thereby a third-dimensional appreciation of their qualities, followed by the collection of further catalogues and information, as required.

The student should visualize the large field of present-day materials as a number of component parts waiting to be brought together as a whole structure of some kind or another.

There are basic groups into which materials can be divided and a clear conception of such groupings will enable the student to approach the subject in an orderly manner. This leads up to the subject of specifying the material, which is the test of the architect's ability to appreciate and select the most suitable available. The annual *Specification* should prove invaluable to the student. The sections are arranged in an orderly manner based on B.S.I. Specification C.D. (b) 7171. Standard information sheets and the JOURNAL'S Library of Planned Information should also be included in every student's library.

A good plan for the student or young architect is to collect catalogues of things he has seen and handled, and to add personal notes on the pages of the catalogues and to file them in an "approved" section. All other catalogues, however interesting, should be kept in another section until the products have been seen and handled both in sample form and fixed in position. There is then an incentive and a reminder to inspect the materials and processes in the latter section, moving them up into the first category when seen and approved.

The student would also be well advised to make out a list of proprietary articles and materials relating them to basic names according to their material content.

The school museum is the student's academic source of information on the more common materials. It is, however, generally antiquated. It is suggested that each school of architecture might, with advantage, keep its museum or laboratory up to date by the additions of samples of approved materials and that a filing system of representative catalogues, standards, regulations, codes of practice, etc., be kept.

WALTER GOODESMITH

## Architectural Education

BERNARD GOLD

SIR,—I was very interested in Mr. Martin-Kaye's letter on architectural education; thoroughly agreeing, as it is, with his remark about this "incoherent grumble." But I ask Mr. Martin-Kaye: "Is he conscious of the reason that promotes such grumbling?"

He mentions about the present system of training being evolved in many years. But does he know how this system came about or who evolved it? Can he mean that a central body of architects have thought the matter over seriously, and dictated to the various schools? This is certainly not so, but is, undoubtedly, just what is lacking. There is no system, and hence the grumble!

What then does the success of a student's training rely on? At the present day it relies on the individual master teaching. It is he who decides the progress his student is to make.

A majority of these masters will often point out a student's error by telling him what is correct and what to do. He will train him by the method of trial and error (which is the key to experience) and go no further. The student has to possess a common sense of his own. He must know not only to criticize his own work, but the advice of his masters. Yet how many students realize this? The student who possesses such common sense takes the right road, and the benefits of his school training and future will not be lost.

Today few students even know the meaning of architecture. They will do a thing and then hope they have done right.

Throughout the time of his training, the student has his work pulled about by the critical eye of his master and correct solutions added. Time after time the same mistake will crop up, but camouflaged in a different problem. Each time it is just corrected, while in the background the student is simply gaping for those vital points upon which the tutor bases his judgment.

The time passes, the students leave their training behind, and many years later, having gained a great deal of genuine experience, they look back. There stands their old tutor, just as proficient and experienced as they are today. But what prevented him in those days from transferring his long collected experience amongst them?

BERNARD GOLD

## Unattached Architects

RAYMOND WALKER (*Member of the Architects' Registration Council*)

SIR,—Voting papers for representation of unattached architects on the Registration Council have now been dispatched. I should like to draw attention to the fact that I have no connection with any architectural body and that I am not a member of the Institute of Registered Architects. I am not in agreement with its policy, for the very simple reason that I have so far failed to obtain an explanation of the details of this policy.

From enquiries I have made I am led to understand the following candidates are truly capable of representing the unattached architects in that they do not belong to any organization of architects. Their names are: Stanley Atkinson, E. W. Chapman, G. Farquhar, A. B. Houchin, A. Randall Wells. Both Mr. Randall Wells and Mr. Chapman have previously served as members of the Council.

I should also like to say that if any unattached architects would like to ask questions I should be very pleased to answer them.

RAYMOND WALKER

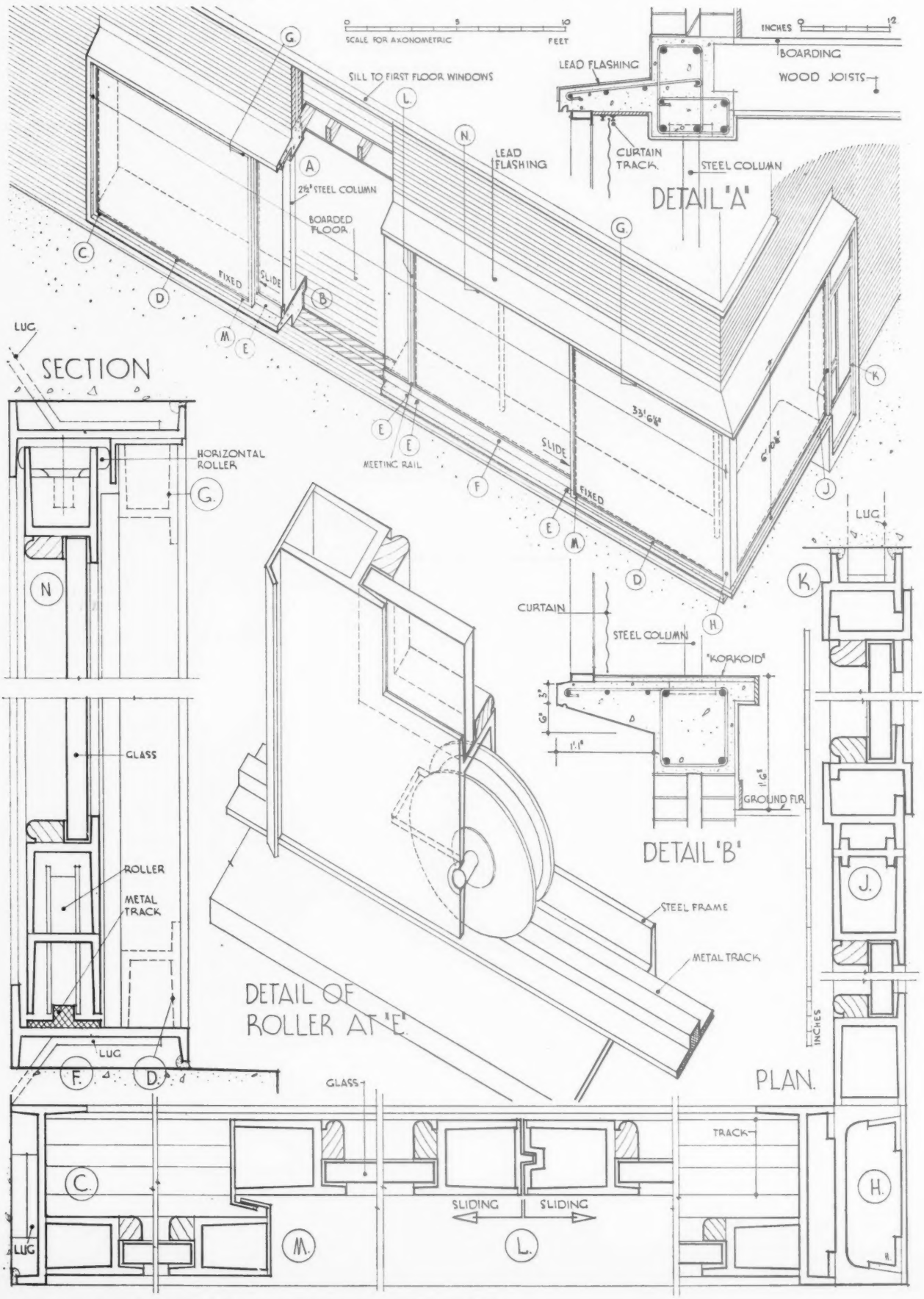
# WORKING DETAILS : 403

## WINDOW • HOUSE AT CHIPPERFIELD • E. MAXWELL FRY

The house illustrated above is of composite brick and wood construction, the main living-room window on the right being set in a reinforced concrete frame. Overleaf are details of this window, the two centre sections of which are arranged to slide, the outer pair being fixed : the sections show the methods for excluding draughts and the roller system for the sliding gear.

# WORKING DETAILS : 404

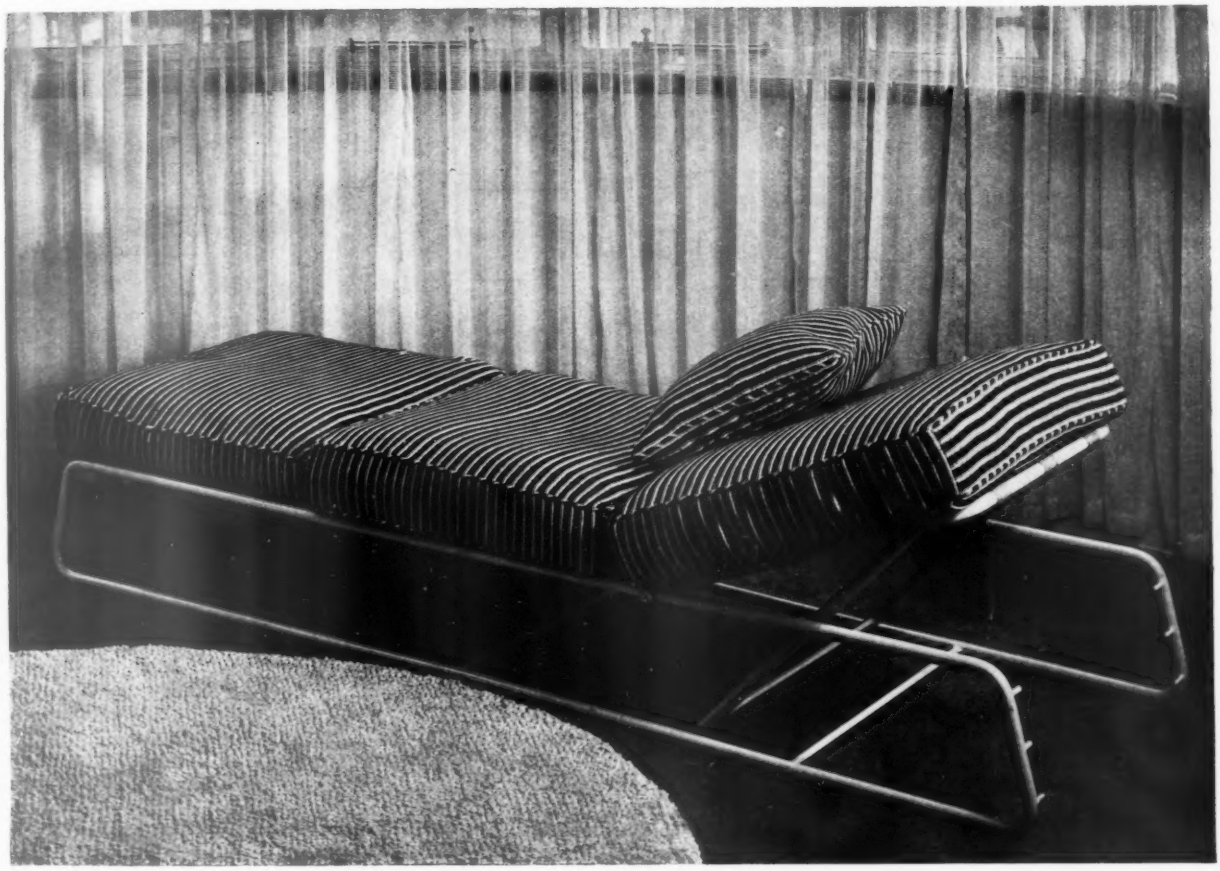
## WINDOW • HOUSE AT CHIPPERFIELD • E. MAXWELL FRY




Axonometric and details of the sliding window illustrated overleaf.

# WORKING DETAILS : 405

## FURNITURE • EMBASSY COURT, BRIGHTON • WELLS COATES



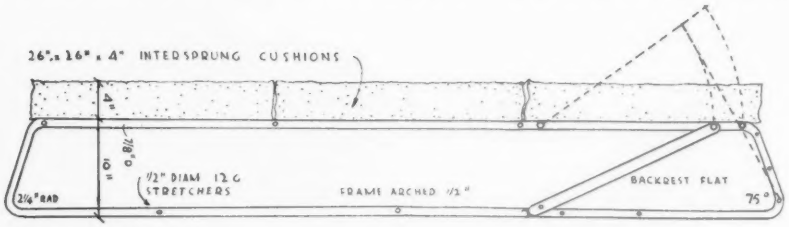
The photographs on this page show : above, a divan with an adjustable back rest and right, a small desk. Dimensions and constructional details are shown overleaf.

THE ARCHITECTS' JOURNAL for February 13, 1936

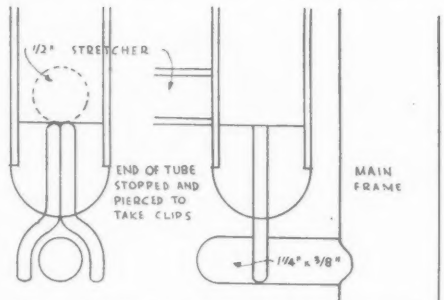
FILING REFERENCE:

# WORKING DETAILS : 406

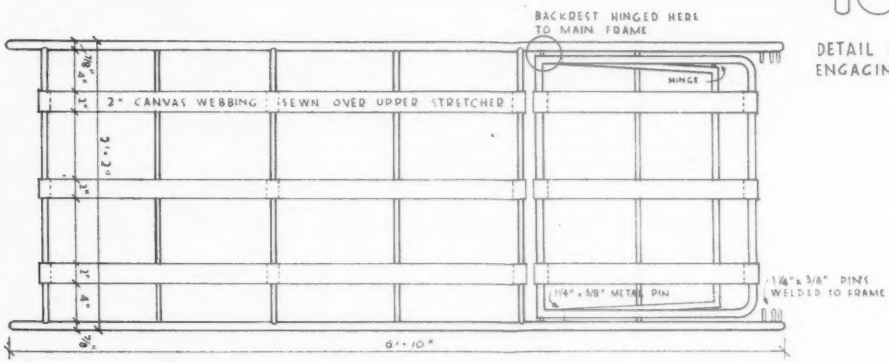
FURNITURE • EMBASSY COURT, BRIGHTON • WELLS COATES




SIDE ELEVATION

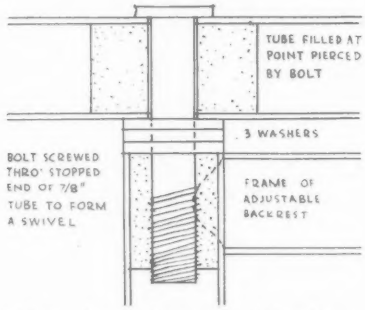



DETAIL OF LOWER END OF BACKREST SUPPORT ENGAGING PIN ON MAIN FRAME

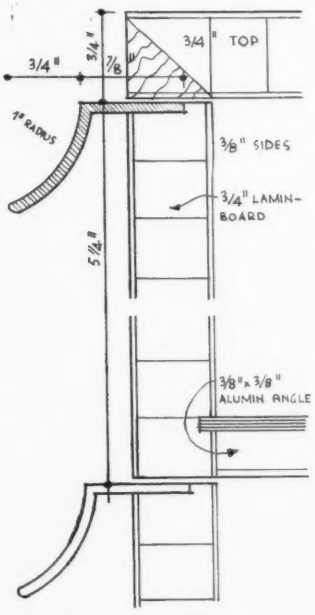



PLAN

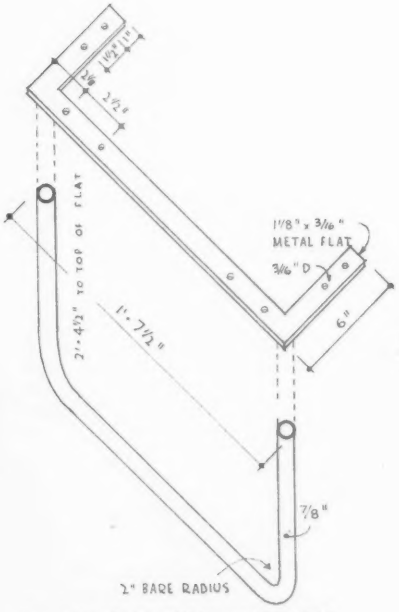
## DIVAN



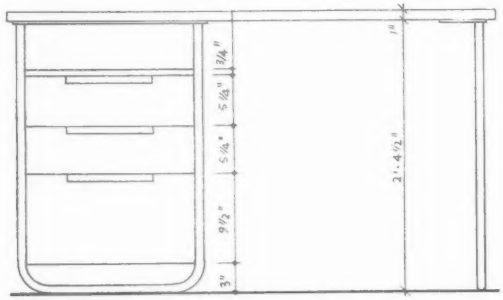

DETAIL ON PLAN SHOWING HOW BACKREST IS HINGED TO FRAME

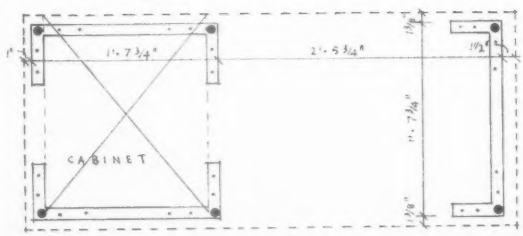



DETAIL OF DRAWERS




STANDARD TUBE STEEL SUPPORTS



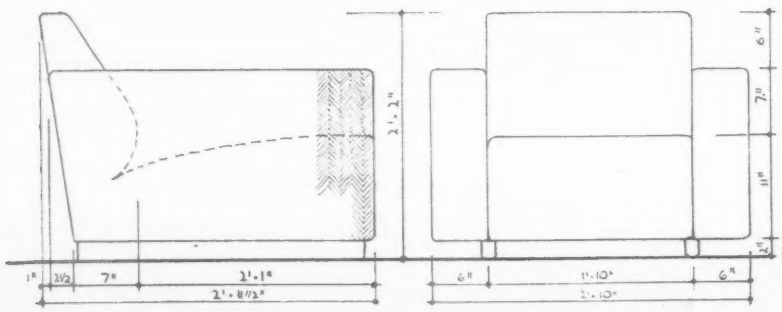




PLAN

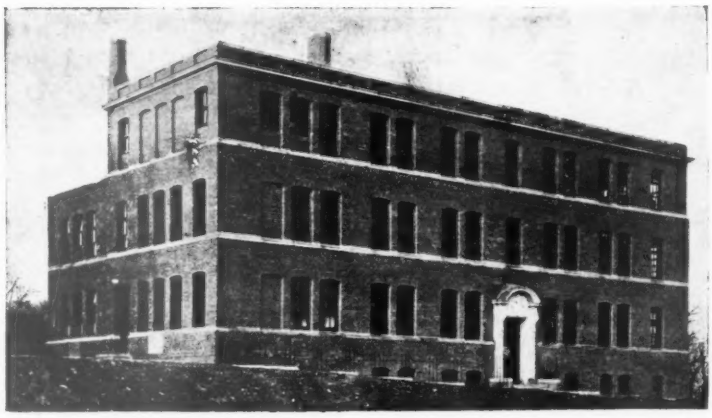
## DESK

## EASY CHAIR

STRONG PLIABLE LINING FABRIC COVERING • HARDWOOD RUNNERS FULL POLISH • 3/4" THICK BIRCH FRAMES DOWELLED AND GLUED TO ARMS • MEDIUM GAUGE COPPER SPRINGING • HAIRLOK PADDING •




**Details of the furniture illustrated overleaf.**



*The new Science Block, the Jones' West Monmouthshire School, Pontypool. From "School Construction."*

# L I T E R A T U R E

## EDUCATION: OR REVOLT IN THE DESERT

[*BY H. MYLES WRIGHT*]

*School Construction:* Supplements to *Education* during 1935. Councils and Education Press, Ltd. London. Price 7s. 6d.

THERE is no doubt that some of the books written for architects can prove dry in the reading. Perhaps this is natural. Their authors may feel that the architectural public looks elsewhere for gripping drama and light relief, and that even the coyest humour is better reserved for the larger literature which is deliberately recreational. For themselves, a sizeable group of these necessary men avoid any relaxation from stern and purposeful expression.

The reviewer, if he follows too carefully behind their earnestness, may easily, in his turn, prove guilty of the gravest fault he can possess: that of being unreadable. The danger of dullness is great both for author and reviewer, but public forgiveness is kept for the authors alone.

Education is different—even when technically transformed into educational architecture. The subject of education can be trusted always to provide its own paradox and its own quiet humour, and the reviewer can relax his watchfulness.

There is something about the word "Education" in this strange land which sends the shadow of a sardonic smile fluttering over the cheek of everyone. Everyone, that is, not financially involved. It is really very odd.

There should be nothing funny about education; it is fundamentally necessary and enormously important. Yet somehow it is still humorous in the views which every man and woman holds about it—and strong views they sometimes are—in the enormous contradictions and contrasts of the way it works, in the grotesque results it can obtain and the post-graduate scepticism so horribly prevalent.

They are many who may be unmoved by Mr. Osbert Sitwell's claim, in *Who's Who*, that he educated himself during the holidays from Eton, but fewer who can remember without strong feelings the first day of a new term, the rooms crammed and wriggling within a rigid architectural casing, the smell of fresh-heated rusty radiators and soft soap, and the general air of desolation and damp sheets.

To all this there is opposed the quotation in *School Construction* from a report of the Council for Art and Industry:—

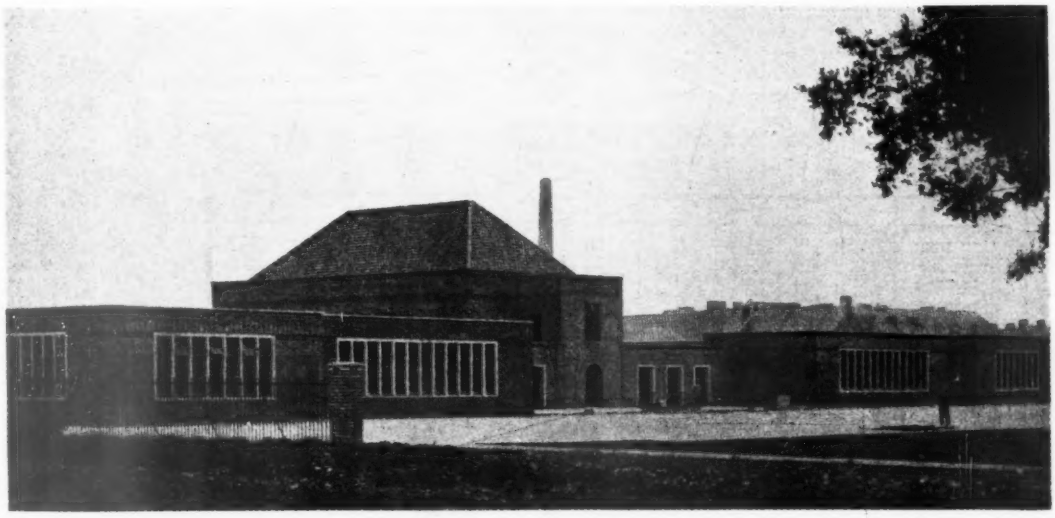
"We believe that children's surroundings, and the first impressions thereby created in their minds, are important factors influencing their development and their outlook on life."

And one of the Council's witnesses stated:—

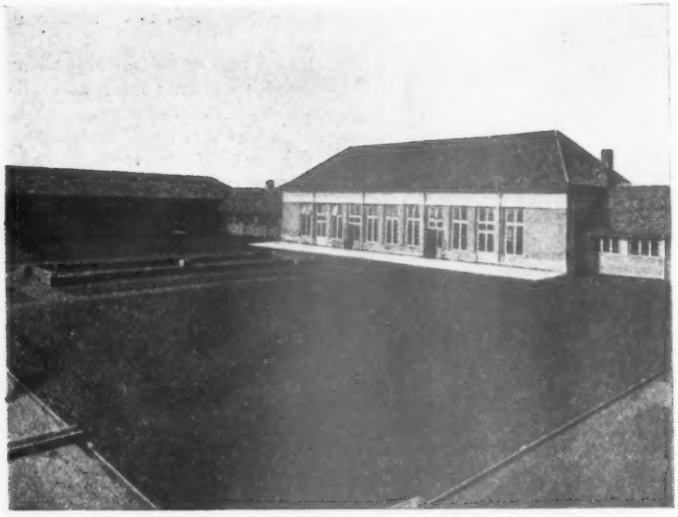
"that the ideal is that the education authorities should give such consideration to the design of things in daily use that the school will do for the mass of children what the cultured home does for the few."

The change in outlook cannot be welcomed too generously.

There are abundant contrasts in the education of this democratic country. The education of one child for a year may easily cost what two other families have as a total income (in authori-



*Grosvenor Elementary School, Belfast. Architect: R. S. Wilshere. A general view from the west, with the assembly hall in the centre. From "School Construction."*



*Brambles Council School, Middlesbrough. Architect: P. B. Haswell. From "School Construction."*

tarian Japan, the child of peer and porter go to the same school compulsorily from six to fourteen), but in one thing there has been a singular unanimity. Save for some natural beauties or, in too few cases, the possession of some buildings of older more cultured times, the surroundings of all school children have for a hundred years been desolatingly ugly, with bad ventilation, heating and lighting thrown in.

A number of people may still feel that any mitigation of pitch-pine, damp stone and the nastier kinds of glazed brick will undermine the stamina of Britain's youth. There is a die-hard puritanism yet lurking in educational circles that assures its believers that one step towards Art, the least banishing of ugliness, may jeopardize that inestimable something which is the "tone" of a school.

Fortunately, die-hards must have something to die for, and the quotation already made shows that progress is going on, that schools may yet help scholars to acquire an appreciation of well-designed surroundings.

But, descending from high hopes to contemporary achievement, there comes the realization that British schools have in truth great opportunities for improvement.

*School Construction* is a bound volume of the school building supplements published in *Education* during 1935. It contains some special articles, many descriptions of new buildings, additions and equipment, and, most importantly, a considerable number of plans, drawings and photographs of new school buildings. Most of the illustrations are naturally of day schools, and the book not only forms a comprehensive record of the type of building now being built throughout Britain, but its technical notes and its advertisements (this is said most seriously) make it a very useful reference book for an architect setting about the designing of a school.

The buildings illustrated do not, as a whole, merit the same praise. I forget when Felix Clay's *Modern School Buildings* was first published—certainly it was pre-war—but nothing very much seems to have happened to schools since.

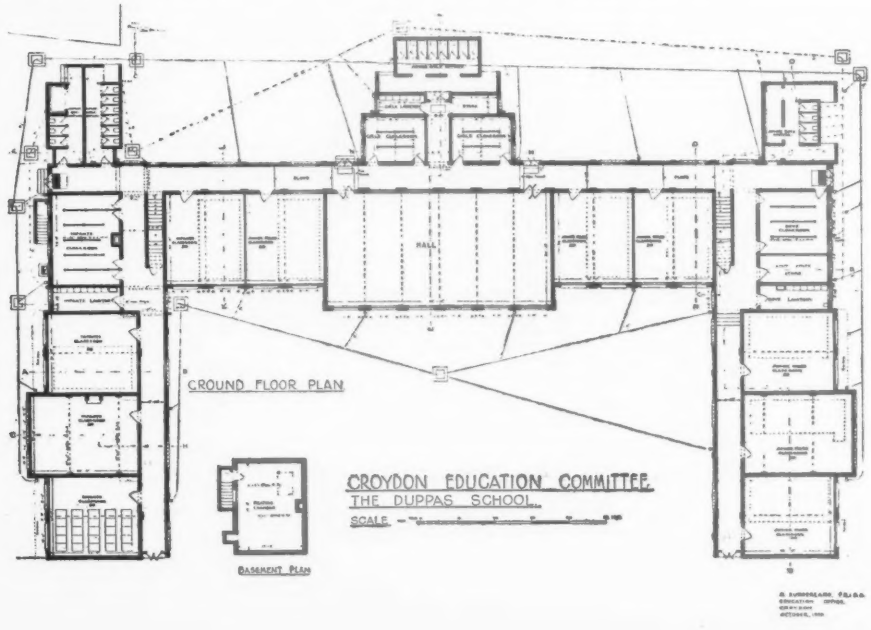
It may be—for I am not an expert in school planning—that the "E" plan, with the assembly hall in the middle, and the "H with the ends closed" plan (the assembly hall still in the middle) are both the last words and the only solutions in planning day schools. It may be so, and *School Construction* certainly encourages one to think so, but it seems a pity.

This large matter disregarded, there still seems too little of the good design, the feeling of sun, air, health and—why not?—joyousness which might not be inappropriate in places where youth has to pass quite a lot of its time.

Only here and there are bright spots in the schools illustrated.

Middlesex shows that somewhere the Council of Art and Industry's exhortation is being taken seriously; Mr. R. S. Wilshere's Grosvenor School at Belfast shows that gloom is not essential nowadays in a self-respecting school, as does Mr. P. B. Haswell at Brambles School, Middlesbrough; and a few others also make desperate efforts to break a bad tradition. For the rest, in too many cases tradition has been the stronger.

School architects may miss some of the




*Duppas School, Croydon. Architect: A. Sunderland. From "School Construction."*

publicity of their calling, even some of the rewards in cash, but theirs is one of the biggest of all architectural responsibilities.

They ought to take it very seriously.

## LONDON SURVEY

[BY PHILIP H. MASSEY]

*The New Survey of London Life and Labour. Vol. IX. Life and Leisure.* London: P. S. King and Son. Price 17s. 6d.

THIS (final) volume of the survey of London Life and Labour, undertaken by the London School of Economics in 1928, and carried out under the direction of Sir Hubert Llewellyn Smith, is devoted to a study of the doings of Londoners when they are not working, or travelling to or from work, or eating, or sleeping. It does not concern itself, however, with political or religious activities.

The production of this volume has naturally been more difficult than the production of volumes upon subjects on which official statistics, published and unpublished, exist.

The three main points brought out are: firstly, that the worker has more leisure now than he had forty years ago, since he works roughly an hour a day less; secondly, that he has a greater margin of income to spend, *inter alia*, on the pursuits of leisure; thirdly, that the number of leisure activities has increased considerably—above all by the discoveries of the cinema and of broadcasting. A fourth point, which does not receive much notice, is the increased amount of leisure time available for the wives of working men, resulting from the reduction in the size of the average family.

The first part of the volume is devoted to a survey of the pursuits of leisure—amusements and entertainments, sports, games and hobbies, holidays and outings, and adult education. This part appears rather short in relation to the second, which contains chapters on workmen's clubs and social organizations for adolescent boys and girls.

The chapter on drink, by Mr. B. D. Nicholson, is outstanding in the third part, but all are packed with interesting material. It is shown that gambling has increased in the last forty years, while drinking, of course, has declined considerably (even more so if the reduced strength of beer be taken into account).

There is no doubt that the number of prostitutes in London has declined considerably during the century, but the figure of 3,000 suggested in the chapter on sex-delinquency by Mrs. C. Neville Rolfe, is surely a serious under-estimate.

The last chapter of the book contains descriptions of the family lives of workers "from the inside."

The Director's conclusions on the results of the whole Survey are contained in the lengthy Introduction, which also serves as a summary of the succeeding chapters.

This is the first of a series of technical articles which will deal with various aspects of building technique, both theoretical and practical. Each article in the series will be complete in itself; future subjects to be dealt with include refrigerators, bathroom planning and finishes, country house lighting plants, architectural model-making and vibrated concrete.

# UNIFORMITY OF AIR CONDITIONS

[BY R. A. G. KNIGHT]
*Forest Products Research Laboratory*

OF late years, increasing attention has been paid to the air conditions in buildings, and it has been realized that the temperature is not the sole factor affecting many of the materials used in their construction. Humidity must also be studied, for although the two are to some extent interdependent, it is frequently the humidity which is of greater importance.

Hygrometric conditions vary continuously, not only from season to season, but even from hour to hour. Generally speaking, however, the short period changes are not of great importance, and the figures that really matter are the averages over sensible periods.

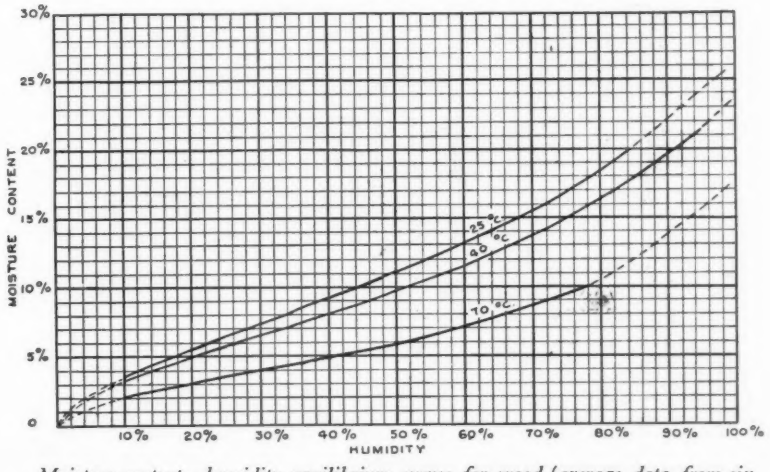
Temperature and humidity can be determined by means of a wet and dry bulb thermometer, but this instrument gives only instantaneous readings, and the evaluation of a mean figure entails the examination of many observations taken over a considerable period, a process which is cumbersome and often impracticable.

Now timber has the property of absorbing moisture in an amount that is related to the temperature and humidity of the air. Of these two factors, the former has but a small effect within the range usually encountered in buildings, hence the moisture content assumed by the timber under given exposure conditions may be used as a measure of the humidity of the air. The relation between the three variables is shown by the accompanying chart.

The response of wood to alterations in humidity is fairly slow, that is, the timber will not change appreciably with rapid fluctuations of air condition, although it is sensitive to the slower and more important variations. The humidity value obtained by the use of a wood sample is, therefore, the average over a sensible period.

Tests may be made with timber samples about 6 in. by 2 in. in area and $\frac{1}{4}$-$\frac{3}{8}$ in. thick, the end grain being on the 6 by 2 faces. It is preferable to make several such pieces into a bundle, the individual samples being separated by slips of wood about $\frac{1}{4}$ in. square.

The bundles are placed in the area under test, and will attain a state of




*Moisture content—humidity equilibrium curves for wood (average data from six species at three temperatures).*

moisture content equilibrium in from five days to a week. After exposure, the individual samples in the bundles are weighed, dried in an oven at 100 deg. C. and the dry weight determined. The percentage moisture content is calculated as follows :—

$$\frac{\text{(Initial Weight) minus (Dry Weight}}{\text{Dry Weight}} \times 100$$

The average humidity of the air can then be found by referring to the equilibrium chart. If the actual mean temperature is known, greater accuracy is obtainable, but for practical purposes it is sufficiently near to assume a figure of 15 deg.-20 deg. C. for ordinary warmed interior conditions.

The method is obviously useful, as it gives a direct indication of the air conditions in relation to the timber work in a building, but it can be used for other purposes. It was, for example, applied recently in checking the uniformity of air condition in Westminster Hall. Prior to the restoration of 1914-1920, the air in the higher parts was said to be excessively warm and humid, and ventilators were then fitted to increase the air movement in the roof. In 1935, a travelling scaffold was built in the Hall for cleaning operations, and by this means access to a range of levels was obtained. In circumstances such as these, where the air was heavy with dust, an ordinary wet and dry bulb hygrometer could not have been used with success, for the fabric sleeve of the wet bulb would have become clogged with dirt, and would probably have ceased to work. A hair type hygrometer would also have been affected in a similar way. The positions of the bundles in the Hall and the results obtained are given in the table. Each moisture content figure is the mean of several tests, but individual figures showed only slight variations.

Clearly, the ventilation arrangements are adequate to ensure uniformity of air conditions at all levels and the absence of damp, stagnant areas. In such places as between wall and pole plates, for example, a higher humidity might have been expected, and its absence is a tribute to the efficacy of system.

This method (shown in table 1) of checking air conditions by means of timber samples is of utility in many cases. It has been applied to the testing of new buildings for dryness.* Extensive experiments have shown that in a matured building where the amount of heating in operation is that commonly accepted as normal, the joinery work has a moisture content of about 12 per cent. A similar structure, with walls, roof and glazing, just completed and prior to the installation of heating, would produce a moisture content of approximately 18 per cent. During the drying-out process, intermediate values obtain.

VARIATIONS IN HUMIDITY CONDITION AT DIFFERENT HEIGHTS IN WESTMINSTER HALL

| Truss Number. | Location of Samples. | Height above Floor. | Moisture Content of Oak. | Corresponding Humidity. |
|---|---|---|---|---|
| | | Ft. | Per cent. | Per cent. |
| 12-13 | Gated enclosure on R.H.S. .. | 14 | 12 | 52 |
| 12-13 | Gated enclosure L.H.S. .. | 14 | 13 | 57 |
| 12-13 | In centre of span .. .. .. | 18 | 13 | 57 |
| 12-13 | End of hammer beam L.H.S. | | 11½ | 50 |
| | Wall end of hammer beam R.H.S. | Approx- | 11½ | 50 |
| | Wall plate L.H.S. .. .. | imately | 12 | 52 |
| | Pole plate L.H.S. .. .. | 43 | 12 | 52 |
| | Pole plate R.H.S. .. | | 11½ | 50 |
| 13 | Between wind brace and lower purlin L.H.S. .. .. .. | 49 | 11½ | 50 |
| 12 | On hammer post 6 ft. above beam R.H.S. .. .. .. .. | 50 | 11½ | 50 |
| 11-12 | 4 ft. from roof and 3 ft. below collar beam R.H.S. .. .. .. | 62 | 12 | 52 |
| 11-12 | On trussed purlin by ventilator R.H.S... .. .. .. | 64 | 12 | 52 |
| 11 | Collar beam by queen post .. | 66 | 12½ | 55 |
| 11 | Upper collar .. .. .. | 77 | 11½ | 50 |
| 8-9 | Lower beams carrying lantern .. | 80 | 12 | 52 |

*Table 1.*

The humidity of the air at any particular period may be found by hanging sample bundles in selected places for a few days, and then testing them for moisture content. The bundles should not be placed in contact with damp walls or exposed to the local conditions near an open window.

Suspected cases of poor ventilation below floors can be investigated by similar methods. Where such tests show the moisture content to be below 20 per cent. there is little cause for worry, for fungal growth does not occur as a rule unless this figure is exceeded. Here again the samples should not be placed near ventilation bricks, but rather in corners where stagnation might occur.

The factor of temperature has so far received little mention, for its direct effect on timber is not great. Considered in relation to a given volume of air, however, temperature may play a large part in the behaviour of the wood. As the temperature rises, so does the humidity fall. Conversely, a drop in temperature below a certain limit will lead to saturation of the air and the deposition of free moisture.

Thus small temperature differences may set up large changes in air humidity, and if these are maintained the moisture content of the timber will alter too. This sometimes occurs in buildings where warm air passes to a colder region, with a consequent rise in humidity. The effects can be found by means of wood samples, though the actual temperature differences are, of course, most easily measured by thermometers.

* Forest Products Research Records—No. 5. *The Moisture Content of Timber in New Buildings*, by R. A. G. Knight. H.M. Stationery Office. Price 6d. net.

## South Wales Institute of Architects

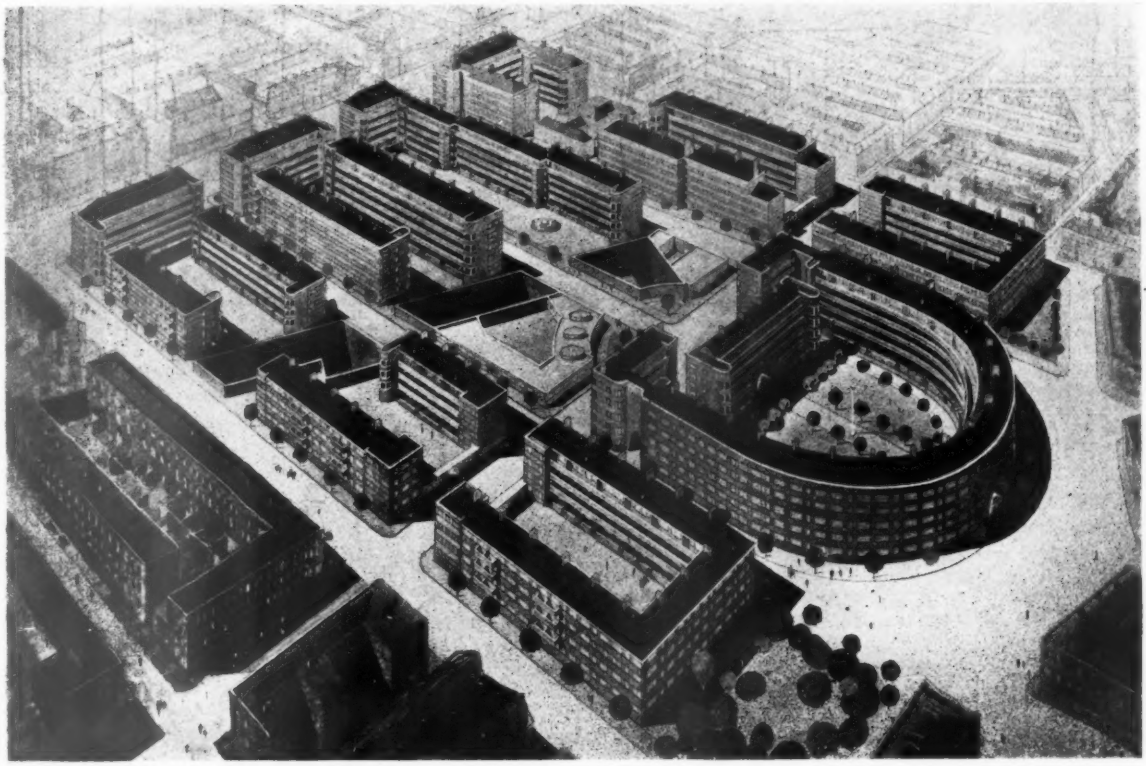
Under the auspices of the South Wales Institute of Architects (Central Branch) and the Institute of Builders, Mr. G. Grey Wornum, F.R.I.B.A., gave a lecture entitled "Modern Architecture and the Craftsman" in the Lecture Theatre of the Engineers' Institute, Cardiff, on Thursday, February 6, 1936.

Mr. Wornum referred to the need for craftsmanship for ornament essential to the full realization of the architect's design, and drew attention to the need on the part of the craftsman of a clear understanding of the architect's work and of a high standard of appreciation on the part of the architect of the craftsman's art and the limits of his material.

The lecturer dealt in turn with a series of five examples of craftsmanship in various materials, such as wood inlay work, carved stone for interior decoration, metalwork in conjunction with plate-glass and a number of treatments for glass, the lecture being illustrated by means of lantern slides.

A vote of thanks to the lecturer was proposed by Mr. W. S. Purchon, M.A., F.R.I.B.A., seconded by Mr. E. A. Ward, F.I.O.B., supported by Mr. T. Alwyn Lloyd, F.R.I.B.A., and carried with acclamation. Mr. C. F. Jones, A.R.I.B.A., chairman of the Central Branch of the South Wales Institute of Architects, presided.

# FLATS IN ST. ANDREW'S GARDENS, LIVERPOOL



**GENERAL SCHEME.**—*The 316 flats comprised in the St. Andrew's Gardens (formerly known as Trowbridge Street) rehousing scheme, have been erected under the powers of the Housing Act, 1930, to provide rehousing accommodation for the families first displaced from the insanitary property included in the several clearance areas in the Gerard Street unhealthy area.*

*The scheme consists of four blocks, A, B, C and D, and development has taken place in successive stages. The first block (C) erected was begun in November, 1932, and contains 75 flats, 16 of which have two bedrooms and 59 three bedrooms. This was followed by Block B of 45 flats (5 two-bedroom and 40 three-bedroom). A third block (A) is made up of 15 two-bedroom and 25 three-bedroom flats, 40 in all. Block D, which was opened by the Minister of Health last June, comprises 4 one-bedroom, 46 two-bedroom and 106 three-bedroom flats, a total of 156.*

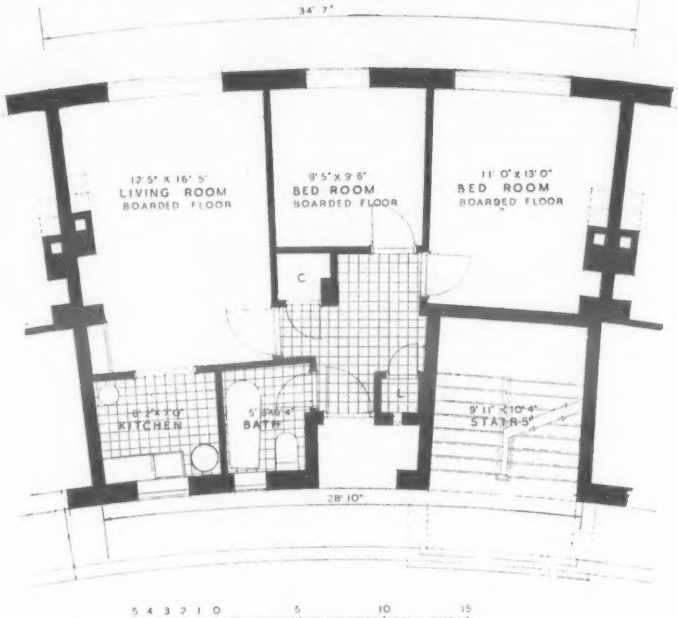
*Above is a perspective of the complete scheme; and, on the right, is a view of the central court of Block D.*

*DESIGNED*

*BY L. H. KEAY*

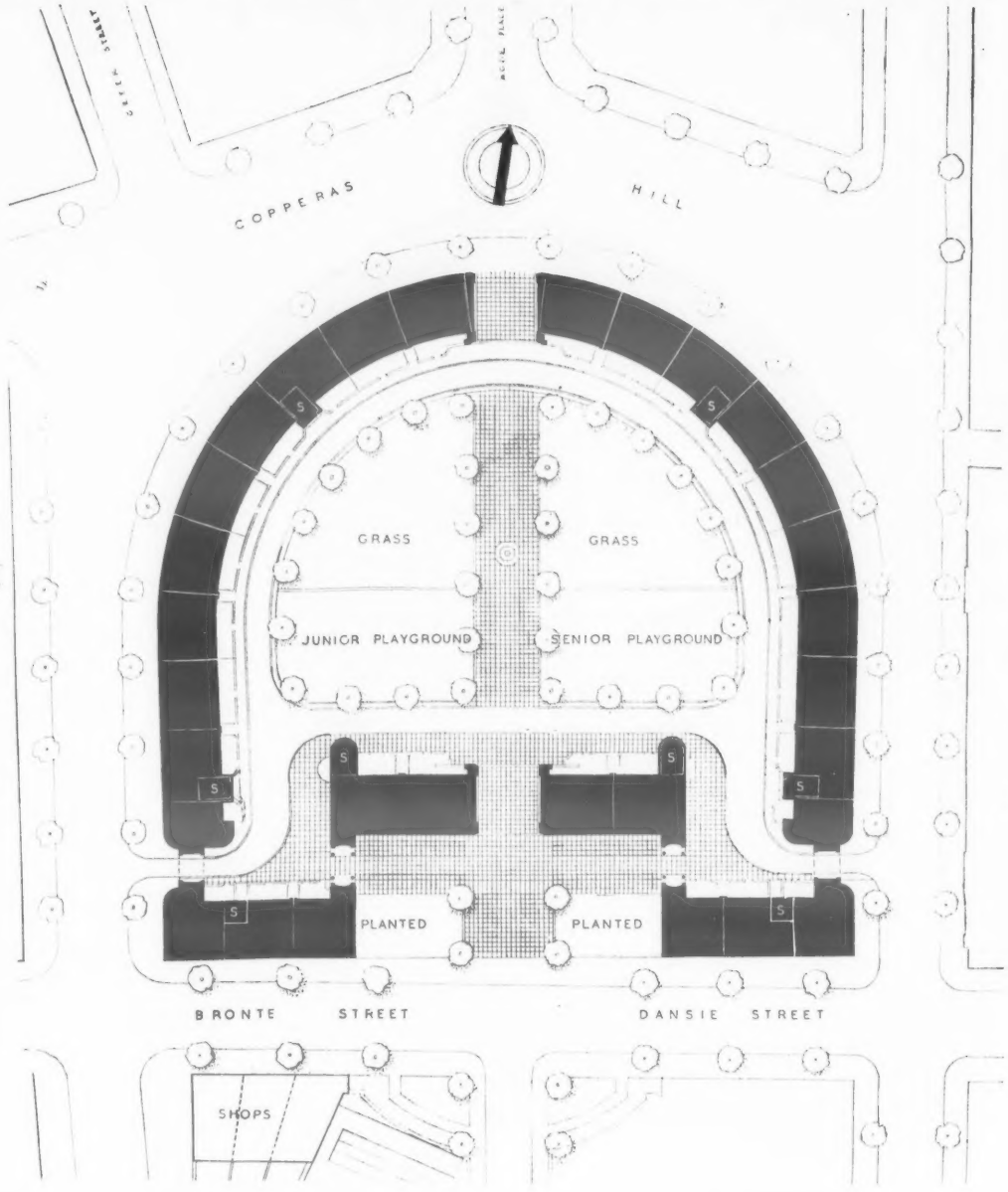
# FLATS IN ST. ANDREW'S GARDENS, LIVERPOOL

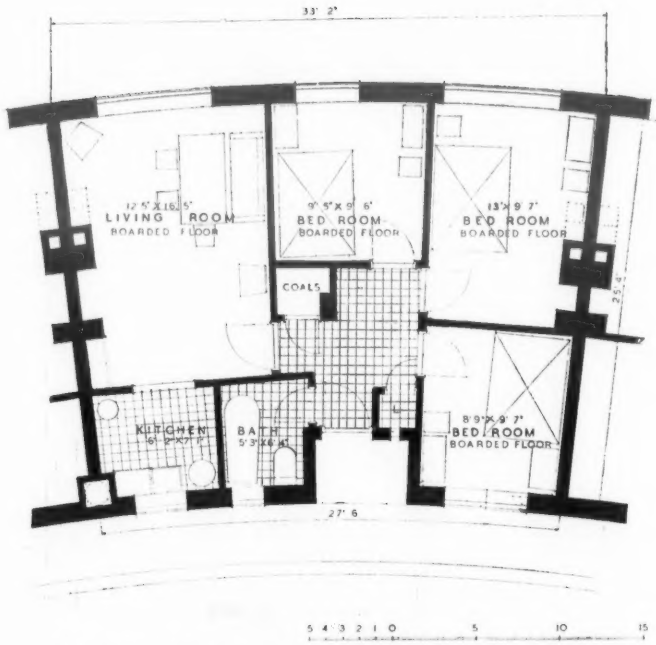
*A general view from Copperas Hill.*




TYPICAL FLAT PLAN (WITH STAIRCASE)

*DESIGNED BY L. H. KEAY*






TYPICAL FLAT PLAN (WITHOUT STAIRCASE)

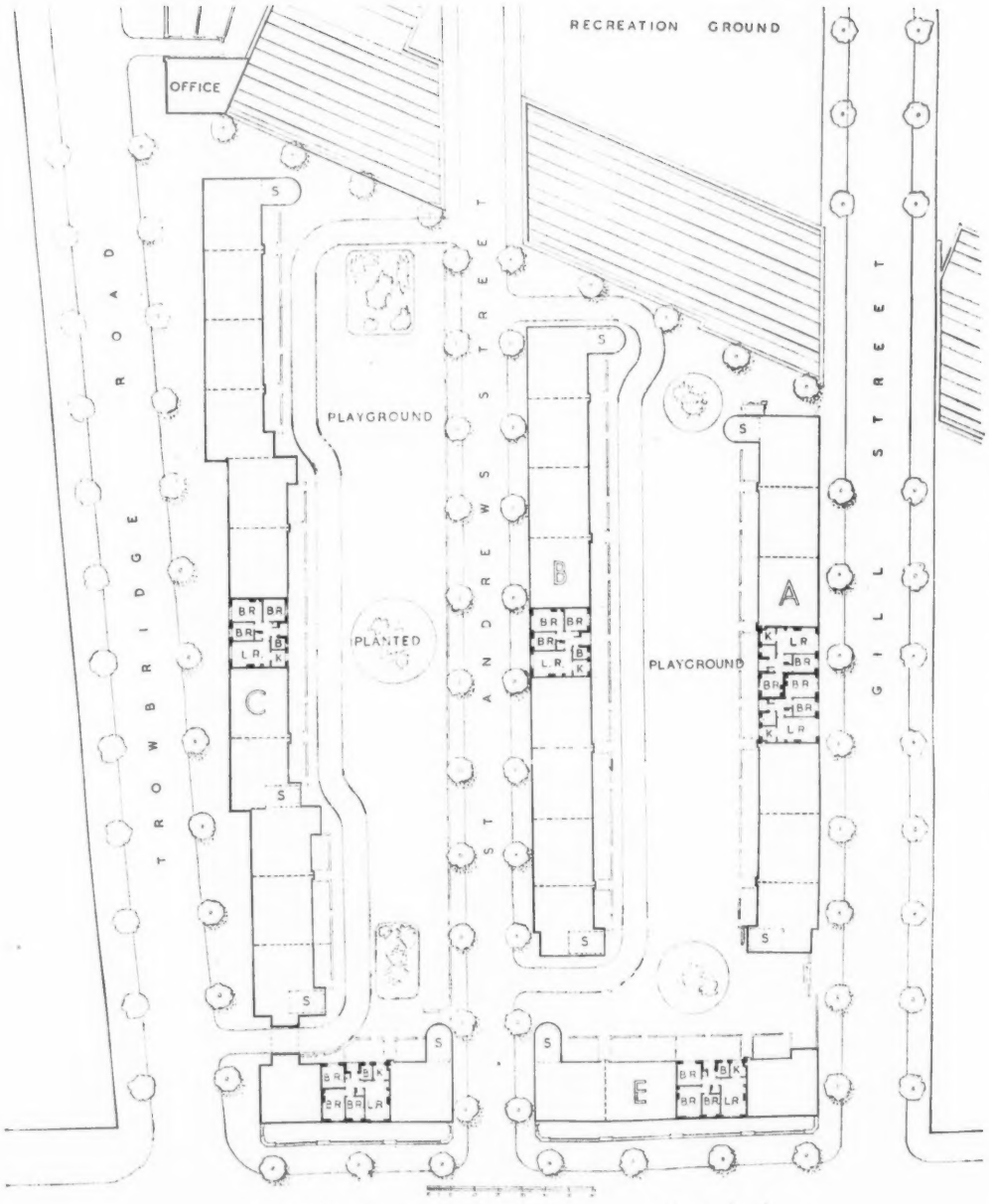
**PLAN.**—*The new buildings are five storeys in height, each floor being identical in plan except where entrance archways pierce the lower storeys. Each flat adheres to a standard unit plan according to the number of bedrooms provided. The accommodation common to all flats is a living room, scullery, bathroom, hall, larder and fuel store.*

*Access to the flats is from continuous balconies which connect to common stairways. Balconies serving more than five flats are accessible from at least two stairways. These stairways are arranged either internally within the space normally occupied by the third bedroom in the unit plan, or in projecting stair towers. All living rooms and principal bedrooms overlook street frontages, the windows abutting on balconies chiefly serving sculleries and bathrooms. All bedrooms open directly off the hall.*

**THE SITE.**—*The major portion of the site was already in the possession of the Corporation and was occupied by the old City Abattoir.*

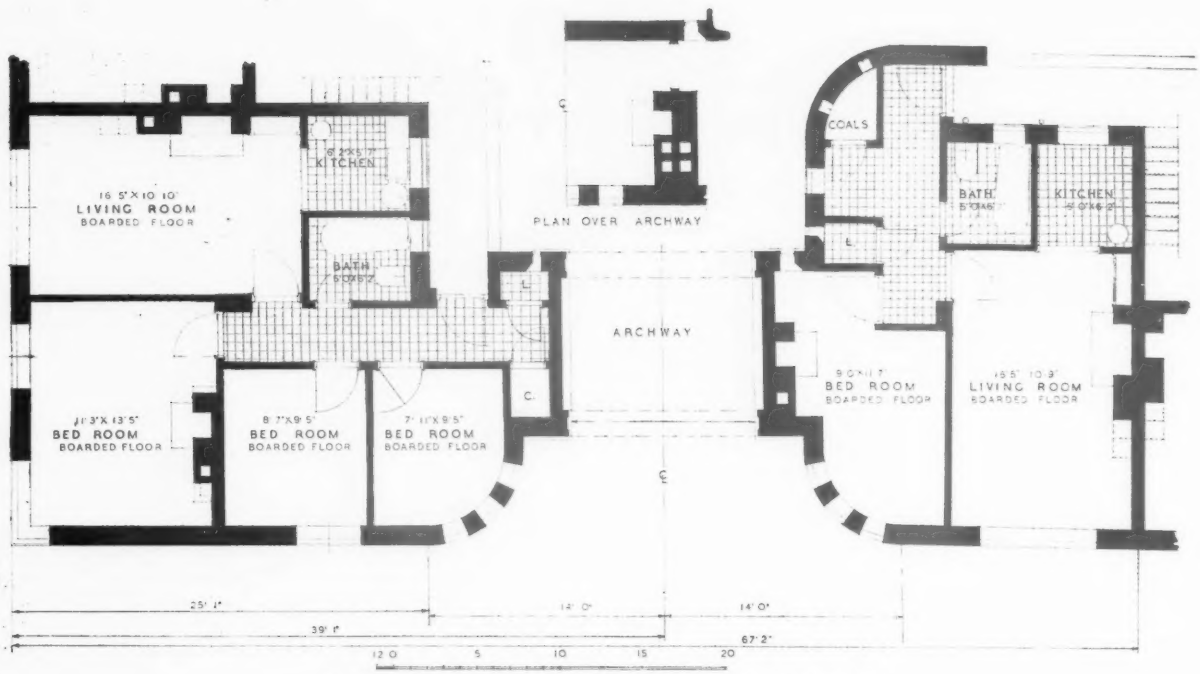
*The lay-out was controlled by the necessity for preserving existing streets and by the open cutting of the L.M.S. Railway Co.'s main line which runs obliquely across the width of the site ; a pedestrian thoroughfare had to be maintained through Block D continuing the line of St. Andrew's Street.*

*Block D, the part of the scheme illustrated in this issue, is shown blacked in upon the site plan, which is continuous across this and the facing page.*



# FLATS IN ST. ANDREW'S GARDENS,

*Looking across the internal court of Block D.*




PLAN OF FLATS ADJOINING ARCHWAYS

# LIVERPOOL: DESIGNED BY L. H. KEAY


**CONSTRUCTION.**—*Mass concrete piers taken down to solid rock support R.C. lintols carrying external walls, stair and party walls. External walls are 11 ins. up to fourth floor and 11 ins. above. Internal party and stair walls are 9 ins. and flat partitions 4½ ins. The ground floor is concrete slab, partially reinforced, and upper floors are of R.C. slab. Roofs are of normal timber construction, bituminous underfelted. Balconies are cantilevered R.C. with fronts of 9 in. brick stiffened by R.C. uprights. Stairs are of precast concrete.*

**ELEVATIONS.**—*Brick facings are light wave golden-brown rustic, with darker plinths. Mortar is tinted yellow, horizontal joints having a slight half-round recessing. Copings and other dressings of artificial stone. Windows are steel casements throughout, are in wood frames with teak cills. Roof tiles are locally made 18 in. by 12 in. concrete. Flats are of concrete, asphalt finished. Pavings are buff artificial stone flags.*

*Above is a detail of one of the arches.*

# FLATS IN ST. ANDREW'S GARDENS, LIVERPOOL

*DESIGNED BY L. H. KEAY*

**INTERNAL FINISH.**—*Ceilings are of plasterboard nailed to fillets on floor rib soffits; the joints are covered with scrim, and thin floated and skimmed with plaster. Walls are plastered two coats, except sculleries, bathrooms, larders and fuel stores, which are of sand lime brick, flush-pointed. Floors of halls, bathrooms, larders and sculleries are of quarry tiles, and elsewhere 1 in. T. and G. spruce, creosoted beneath.*

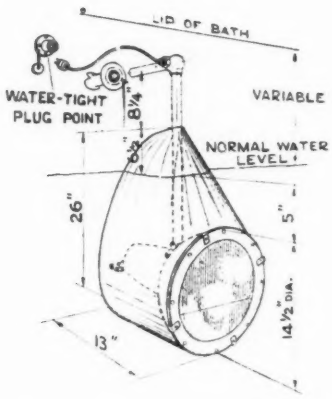
*All internal walls water painted, joinery enamelled, and floors treated one coat preservative. Stairways are finished in jade green and cream synthetic paint.*

**EQUIPMENT.**—*Largest bedroom in each flat has open fire grate, and each living room has combination grate with side oven and back boiler. Hot-water cylinder is in scullery and serves sink and bath. All water-piping is in copper. A gas-heated wash boiler is in the scullery. Refuse disposal is by 15 in. diameter glazed stoneware chutes with access hoppers at each balcony level.*

**COST.**—*The cost of the scheme as now built is approximately £133,450, and the average cost per flat is £422, inclusive of roads, sewers, and playgrounds, and £402 net.*

*The photographs show: left, a detail of the balcony windows; above, looking across the main entrance court.*

For a list of the general and sub-contractors see page 284.




# TRADE NOTES

[EDITED BY PHILIP SCHOLBERG]

### *Soundproof Floors*

THE illustration at the foot of this page shows another solution to the old problem of soundproof floors; this particular example having been evolved to provide adequate insulation between a dance floor and a banqueting hall on the floor below.

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Construction is simple, and comprises ordinary 2 in. by 2 in. joists with a batten floor over them; the joists are a minimum distance of ½ in. above the floor slab, and are supported by diagonally bolted cast-iron rocking bars, which allow the floor to rise and fall gently under the application of a moving load.

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The advantages claimed for this floor, which has recently been patented, are that it gives permanent resilience without springs, good sound insulation and, incidentally, good heat insulation if the ceiling below contains embedded heating coils, while the floor thickness is only ½ in. more than the normal type.

### *Daylight Variations*

For the last ten years or so the National Physical Laboratory has been quietly measuring the daylight illumination from each quarter of the compass, and the results have now been averaged out and are available in pamphlet* form.

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There are, of course, plenty of sun altitude diagrams (not to mention Messrs. Dufton and Beckett's Heliodon) to enable one to determine the theoretical hours of sun, insolation of rooms and variations in illumination intensity, but it should be remembered that these are *calculated* results for the maximum possible illumination and take no account of the vagaries of the English climate.

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The figures in this report, therefore, are extremely valuable, since they give *actual* figures of the illumination obtainable and make allowances for rain, fog and all the other unpredictable factors which are liable to upset the best calculations.

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Admittedly the figures only refer to Teddington, where the atmosphere is relatively clear, and the results would not, of course, be applicable to towns in the industrial north, but the variations from the theoretical maximum are extremely interesting, and the report states that similar measurements are to be started in other parts of the country.

•

This kind of long term research is essential to any industry, and needs so much time and patience that it is quite outside the scope of the average profit-making concern. I don't know who first thought of having a Department of Scientific and Industrial Research or which Government had the courage to "implement" the original plan, but it was a remarkably enlightened piece of work.

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Perhaps because it is a Government Department, the D.S.I.R. never seems to be really appreciated. The rather unprepossessing pamphlets are produced with no publicity and at a fantastically low price, and there is very little evidence to show that the building industry takes anything like as much notice as it ought to.

### *Swimming Bath Lighting*

Underwater lighting for swimming baths is becoming more and more popular, and is simple enough to instal on a new job, provided, of course, that reasonable care is taken to make the fittings watertight. The conversion of existing jobs, however, is more difficult, for the amount of work involved is fairly considerable.

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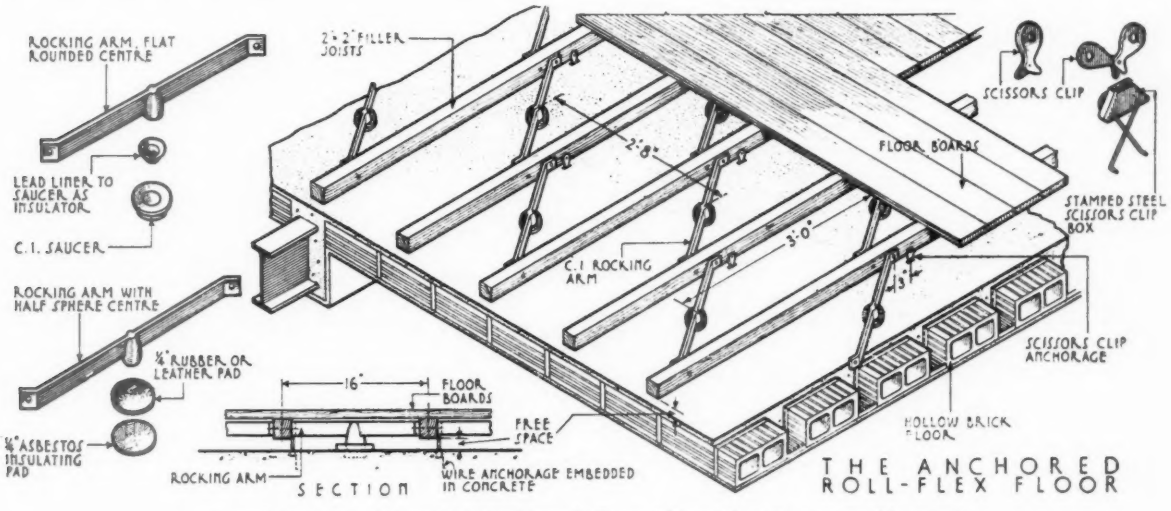
The headpiece to these notes shows an alternative solution devised by the Benjamin Electric, which consists of a separate

* *The Seasonal Variation of Daylight Illumination.* Illumination Research Technical Paper No. 17. H. M. Stationery Office. Price 4d.




*A soundproof floor designed for the Masonic Peace Memorial.* *(See note on this page.)*

floodlighting unit to be hung from supports above water level, the whole installation being simply carried out with no structural alterations.

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The system is open to one or two objections from the point of view of cleanliness and the present demand for completely unobstructed bathing space, but there may well be occasions on which it could be usefully employed.

# IN PARLIAMENT

*Housing Associations*

Mr. Whiteley asked the Minister of Health what arrangements were being made to establish housing associations under the 1935 Housing Act, how such associations, when formed, were to be financed; and what figure per house was to be granted to housing associations, and for what period.

Sir K. Wood said that the Exchequer assistance provided under the Housing Acts of 1930 and 1935 was made available to Housing Associations through the medium of local authorities by Section 27 of the Act of 1935. He hoped that full use would be made of this Section and that it would lead to a substantial extension in the operations of these associations. The amount of the grant payable by the local authority to the association was a matter for arrangement between the two bodies, subject to his approval.

*Fireproof Staircases*

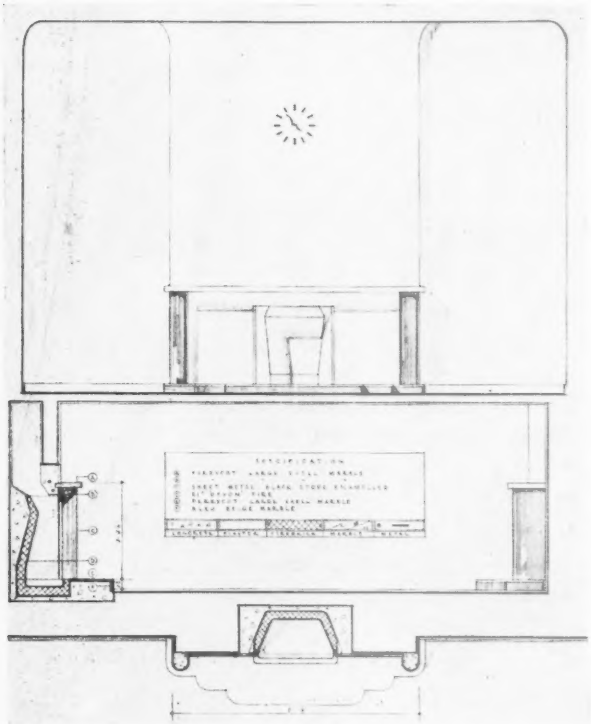
Mr. Graham White asked the Minister of Health if his attention had been drawn to the loss of life due to recent outbreaks of fire in Edinburgh and Tyldesley; whether, in view of the fact that in these and other cases escape from burning buildings had been prevented by the destruction of staircases, he would in future, where possible, prescribe and elsewhere recommend that staircases should be constructed from fireproof material; and if it was his intention to introduce legislation for the better inspection of buildings, with a view to reducing the risk of life and damage from fire to a minimum.

Sir K. Wood said that his attention had been called to the outbreaks of fire referred to. He had no power to prescribe the method of constructing staircases, but local authorities could deal with the matter by bye-laws and have various powers of inspecting buildings. He would consider whether it was desirable to issue any recommendation to local authorities.

*Slum*

Mr. Day asked the Minister of Health whether he could state, according to his latest reports, the number of unhealthy basements and condemned houses there were in the county of London; and what steps were being taken to deal with the same.

Sir K. Wood said that according to returns obtained by the London County Council in 1934 there were in London 20,108 underground rooms, including 86 in the Borough of Southwark, used for sleeping purposes which were deemed unfit for human habitation within the meaning of Section 18 of the Housing Act, 1925. Action for closing such rooms was proceeding; extended powers for this purpose had been given by the recent Housing Act. As regarded the second part of the question the total number of houses scheduled for demolition in the programme submitted by the London County Council in 1933 was 33,000. Action with a view to demolition had been initiated in respect of 10,500 houses, including 757 in the Borough of Southwark.



*The design placed second by J. W. Davidson in the recent competition (organized by The Coal Utilization Council) for open fireplaces and surrounds.*

# THE BUILDINGS ILLUSTRATED

SHOE SHOP, TUNBRIDGE WELLS (pages 264-267). The general contractors were Courtney Pope, Ltd. The principal sub-contractors and suppliers included :—

Lenscrete, Ltd., special roofings (concrete and glass flat), glass; James Clark and Son, Ltd., glass; Haywards Ltd., central heating; Strange and Sons Electrical Engineering Co., Ltd., electric wiring; Troughton and Young, Ltd., electric light fixtures; Artistic Blind Co., Ltd., sunblinds; Donald Bros., Ltd., textiles; Finmar, Ltd., chairs; B. Cohen, Ltd., tables.

ST. ANDREW'S GARDENS, LIVERPOOL (pages 277-282). The general contractors were, for blocks A, B and C., John Lewis and Sons, for block D, J. Jones and Sons. The principal sub-contractors and suppliers included:—

Trussed Concrete Steel Co., Ltd., reinforced concrete engineers; Ravenhead Sanitary Pipe and Brick Co., Ltd., facing bricks; Tushingham Metallic Brick Co., Ltd., selected common bricks; Liverpool Artificial Stone Co., Ltd., artificial stone flagging—blocks A, B, C; Northern Cement Construction Co., Ltd., artificial stone flagging—block D; Liverpool Artificial Stone Co., artificial stone—blocks A, B, C; Pearson Bros. and Campbell, Ltd., artificial stone—block D; Robt. Abraham, Ltd., concrete tiles; Manchester Slate Co., Ltd., concrete tiles, fixers—block D; Wormells, concrete tiles, fixers—blocks A, B, C; F. McNeill & Co., Ltd., "Lion" brand roofing felt; Monk & Co., Ltd., roads and sewers—blocks A, B, C; Lawrence Marr and Son, roads and sewers—block D; Baxendale & Co., Ltd., fume pipes; J. Stott and Sons, Ltd., electric wiring—blocks A and C; T. Jones & Co., electric wiring—blocks D and B; General Electric Co., Ltd., electric light fixtures, external; W. Heyes & Co., Ltd., "Lacent," electric light fixtures, stairs and balconies; Falk, Stadelmann & Co., Ltd., electric light fixtures; Roughley & Co., Ltd. plumbing—block D; Musgraves (L'pool), Ltd., sanitary fittings—block C; Rowe Bros. & Co., Ltd., and Dodd & Oulton, Ltd., sanitary fittings—blocks A, B, C and D; Walter Macfarlane & Co., Ltd., rainwater and soil pipes, gutters, etc.; Rowe Bros. & Co., Ltd., door furniture; Crittall Mnfg. Co., Ltd., casements; Adams Bros. (L'pool), Ltd., Thistle plaster—block D, Thistle plaster board ceiling slabs; Peakes (1932), Ltd., metalwork, fencing—blocks A, B, C; E. Wilson & Co., Ltd., metalwork, fencing—block D; George Lowe and Sons, metalwork, fencing—block C; Carter & Co., Ltd., name panels in tiling; Dix Bros., curtain rails—block C; Ray and Miles, Ltd., curtain rails, blocks A, B, C; W. Wilcock, Ltd., painting—block D; Carron Company, grates and mantels; M. T. Grey, Ltd., grates and mantels; Castles Shipbreaking Co., Ltd., teak seats; Paripan Ltd., paint, "Paripan"; Nobel Chemical Finishes, Ltd., paint, "Dulux"; Walpamur Co., Ltd., paint, "Walpamur" and "Duradio"; North British Chemical Co., Ltd., paint, "Neofex"; H. Hunt and Son, Ltd., playground equipment; H. G. Riddell, lighting conductors; J. R. Pearson (Birmingham), Ltd., signs.

# THE WEEK'S BUILDING NEWS

**LONDON & DISTRICTS (15-MILES RADIUS)**

BARKING. *Public Hall.* The Corporation is considering a scheme for the erection of a public hall in Woodward Road, at a cost of £16,000.

BATTERSEA. *Factory.* Messrs. Lewis Rugg & Co., are to erect a factory in Church Street, Battersea.

BERMONDSEY. *Flats and Shops.* The B.C. is to erect 112 flats and three shops on the Arnolds Place area, at a cost of £62,023.

BERMONDSEY. *School.* The L.C.C. has acquired a site in Kintore Street, Bermondsey, for the erection of a nursery school.

BRIXTON. *Maisonettes.* Mr. E. D. Griffiths is to erect maisonettes on the site of 50-2 Brixton Hill, Brixton.

EALING. *Filling Station and Shops.* The T.C. has now approved plans by Messrs. Welch and Lander, for the proposed erection of a filling station, 10 shops and 30 flats, at Western Avenue and Heathcroft.

EALING. *Shops, etc.* Mr. W. Henden Winder has prepared plans, for Mr. E. G. Mearles, for 10 shops with 10 flats over at Little Ealing Lane and Windmill Road.

HACKNEY. *Flats.* Mr. W. V. Zinn is to erect flats at the corner of Stamford Hill and Lynmouth Road, Hackney.

HAMPSTEAD. *Extensions.* Messrs. T. P. Bennett and Son have prepared plans for extensions at Messrs. John Barnes' store, 191-217 Finchley Road, Hampstead.

HARROW. *Houses.* The U.D.C. are to proceed with the erection of 18 houses for aged poor in Kings Road, at an estimated cost of £3,600. It is also proposed to erect, subject to consent by the M.H., 40 houses and six bungalows on the Glebe housing estate at an estimated cost of £18,000. Plans by Council's surveyor.

HAYES. *Flats.* Messrs. A. E. Mellor (Kenton), Ltd., are to erect 42 flats at Nestles Avenue. Plans have now been approved.

HAYES. *Housing Estate.* Subject to the submission of a lay-out plan, the Hayes and Harlington U.D.C. has approved the development of Frogmore Farm by Messrs. T. F. Nash, Ltd., where it is proposed to erect 3,000 houses.

HAYES. *Estate Development.* Messrs. Taylor Woodrow Estates, Ltd., have submitted lay-out plans for the proposed development of Cranford Park. The scheme provides for the development of 86·42 acres, while 11·88 acres are to be left as an open space. The full development provides, in addition to housing, for a school site, shops and business premises and a swimming pool.

KENSINGTON. *Flats.* Mr. E. Kingdon Rowe is to erect a block of flats on the site of 105-7 Ladbroke Road, Kensington.

MARYLEBONE. *Buildings.* Messrs. Connell, Ward and Lucas are to erect buildings on the site of 32-4 St. John's Wood Road, Marylebone.

MARYLEBONE. *Development.* The B.C. is to make provision for an expenditure of £100,000 in connection with the development of land adjoining the town hall.

MIDDLESEX. *Extensions.* The Middlesex C.C. is to commence the first section of the scheme for the improvement and enlargement of Edmonton House and the North Middlesex county hospital, at a cost of £90,000. The complete scheme will cost £500,000.

NORTHOLT. *Shops.* Messrs. Castle View Estates, Ltd., are to erect 11 shops and garage at Ruislip Road and Church Road, to plans submitted by Mr. J. P. Gardner.

PERIVALE. *Factory.* A factory is to be erected at Wadsworth Road, for the Western Joinery Works, to plans submitted by Messrs. Percy Bilton (Properties) Ltd.

PINNER. *Church.* The Harrow U.D.C. has approved plans for the erection of a new Methodist Church at the junction of Love Lane and Barrow Point Avenue.

SOUTHWARK. *Branch Library.* The B.C. is to obtain a site in the southern ward for the erection of a branch library.

STANMORE. *Shops and Flats.* Subject to the approval of the County Council, the Queensbury Estates, Ltd., are to erect 25 shops and 36 flats in three blocks in Honeypot Lane.

STANWELL. *Estate Development.* The Staines U.D.C. has instructed their Surveyor to proceed with the preparation of the plans for the proposed development of a site between Town Lane and Long Lane by the erection of 280 houses. Lay-out plans have already been approved.

STEPNEY. *Extensions.* Mr. G. H. Lillywhite has prepared plans for extensions on behalf of Messrs. Charrington & Co., Ltd., at the Anchor Brewery, Mile End Road, Stepney.

STOKE NEWINGTON. *Flats.* Mr. J. S. Bramwell is to erect a block of flats at the junction of Seven Sisters Road and Queen's Road, Stoke Newington.

SYDENHAM. *Shops and Flats.* Messrs. Marshall and Tweedy are the architects, and Messrs. L. T. Swanne & Co., the builders for an important shopping and flat scheme in Sydenham.

TWICKENHAM. *Factory.* Messrs. Brewer, Smith and Brewer, on behalf of Wilsons (Kingston) Ltd., has prepared plans for the conversion of existing temporary structure in Arlington Road, into a permanent building. The building is to be 140 ft. long by 62 ft. wide, 14 ft. high and 32 ft. high to the ridge.

TWICKENHAM. *Cinema, etc.* The T.C. has now approved plans submitted by Mr. W. J. King, for the proposed erection of a cinema, 15 shops with 15 flats above, and 15 garages on a site at the junction of Percy Road and Nelson Road.

TWICKENHAM. *Houses.* The New Ideal Homesteads, Ltd., are to erect 38 houses on a site in Villiers Avenue, plans for which have been approved.

TWICKENHAM. *Flats.* Mr. Paul Hoffman is the architect for 78 flats to be erected in Waldegrave Gardens. Plans have now been approved subject to the approval of the Borough Engineer of steelwork and reinforced concrete details.

UXBRIDGE. *Houses, etc.* The U.D.C. has approved plans as follows: The Estate Development Co., Uxbridge, 20 houses, The Greenway; Mr. R. T. Warren, 11 houses, Hillingdon Hill; W. J. Clements, shop, showrooms, etc., The New Broadway, Uxbridge Road, Hillingdon.

UXBRIDGE. *Clearance Area.* The U.D.C. has instructed the architect, Mr. W. L. Eves, to prepare the lay-out plans in connection with The Lynch Clearance Area No. 1.

WEALDSTONE. *Factory.* Plans have been approved for the rebuilding and extension of the factory premises, in Whitefriars Drive, of Messrs. Winsor and Newton.

WOOLWICH. *Extensions.* The L.C.C. is to improve and extend the hostel accommodation at the Avery Hill training college, Woolwich, at a cost of £32,700.

**SOUTHERN COUNTIES**

BOGNOR REGIS. *Bathing Pool.* The Council has now approved a scheme for the provision of a bathing pool on the foreshore, which is estimated to cost £53,500.

EASTBOURNE. *School.* The Education Committee has purchased a site in Eldon Road for the erection of a girls' high school.

EASTBOURNE. *Conference Hall.* The Eastbourne Corporation has asked the borough engineer to submit plans for the erection of a conference hall, and the completion of the Redoubt scheme.

EASTBOURNE. *Cinema.* Corporation has now approved plan by Mr. W. S. Trent, architect, on behalf of Union Cinema, Ltd., for the erection of a cinema in Seaside Road.

**MIDLAND COUNTIES**

BIRMINGHAM. *Cinema.* The Corporation has sold a site at the junction of Bristol Road and Spring Vale for the erection of a cinema to Mr. A. W. Rogers of Colinton, Birmingham Road, Wylde Green.

BIRMINGHAM. *Fire Station.* The Corporation has purchased a site for the erection of a fire station in Bushwood Road, Weoley Park.

KIDDERMINSTER. *Offices, etc.* Plans passed by the Corporation: Offices and printing works, New Road, for Kidderminster Shuttle, Ltd.; alterations, Hare and Hounds Inn, Broadwaters for Messrs. D. Batham & Co.; two houses, off Leswell Estate, for Messrs. G. Thomas and Son; extensions, Coventry Street, for Messrs. G. T. Cheshire and Sons, Ltd.; rebuilding Broadwaters Inn, Broadwaters, for Messrs. Radcliffe & Co., Ltd.; four shops, Broadwaters, for Mr. J. H. Thirsfield; two houses, Lakes estates, for Mr. G. W. Williams.

KIDDERMINSTER. *Houses.* The Corporation is to erect 75 houses on the Foley Ark estate.

KIDDERMINSTER. *Aerodrome Site.* The Corporation is negotiating for an aerodrome site at Holbrook.

**NORTHERN COUNTIES**

BOLTON. *Houses.* The Corporation is to erect 150 houses on the Willows Lane estate.

BOLTON. *Shops, etc.* Plans passed by the Corporation: Four shops, Forten Avenue, for Messrs. W. Gornall and Sons, Ltd.; swimming pool and lido, Moss Bank Way, for Mr. J. H. Dixon; works extensions, Manchester Road, for Bolton Railway Wagon and Ironworks Co., Ltd.; extensions, Atlas Mills, Bute Street, for Musgrave Spinning Co., Ltd.; four houses, Leighton Avenue, for Messrs. Price Bros.; estate development, Moss Bank Way, for Messrs. Rothwell and Halstead; showrooms, Endon Street, for West End Auto Engineering Co., Ltd.

BOLTON. *Fire Station.* The Corporation is to obtain a site for the erection of a new fire station instead of enlarging the existing station.

HULL. *School.* The Education Committee is to prepare plans for the erection of a junior school for 400 in Priory Road.

HULL. *Factory and Offices.* Messrs. F. Robinson & Co., Ltd., are to erect a factory and offices in Southcoates Lane, Hull.

HULL. *Houses.* The Corporation is to obtain tenders for the erection of 292 houses on the Endyke estate.

HULL. *School.* The Education Committee has asked the city architect to prepare plans for the erection of a grammar school in Bricknell Avenue.

LEEDS. *Shops.* Messrs. J. W. Watson and Sons are to erect shops at the junction of Kingsley Drive and Gainsborough Avenue, Leeds.

MANCHESTER. *Houses.* The Corporation is to erect further houses on the Clayton estate at a cost of £83,700.

MANCHESTER. *Licensed Premises.* The Corporation has leased a site in Altrincham Road to Messrs. Threlfalls Brewery Co., Ltd., for the erection of licensed premises.

MANCHESTER. *Houses.* The Corporation has approved schemes for the erection of 46 houses at Higher Crumpsall and 204 at Stanton Street estate.

MANSFIELD. *Shops.* Mr. C. H. Hill is to erect shops at the junction of Smith Street and Epsom Street, Mansfield.

MANSFIELD. *School.* The Mansfield Education Committee is to select a site in Ravensdale for the erection of an elementary school for 480 pupils.

MANSFIELD. *Museum.* The Corporation is to select a site for the erection of a museum.

SHEFFIELD. *Clinics.* The Corporation has acquired sites in Ridgeway Road and Sicey Avenue, for the erection of two welfare clinics.

SHEFFIELD. *Houses, etc.* Plans passed by the Corporation: Five houses, Norton Lane, for Messrs. J. Marsh and Son, Ltd.; 13 houses, Ridgehill Avenue, for Hellewell Estates, Ltd.; alterations, Foundry Arms, Barrow Road, for Messrs. J. Tetley and Son, Ltd.; workshop, showrooms and offices, Sidney Street, for Messrs. J. H. and T. A. Hardy; news cinema, Fargate, for Theatres, Ltd.; 202 flats, Bradfield Road, for Mr. A. Krausz; 56 houses, Single ton Road, for Mr. D. Topliss; six houses, Shenstone Road, for Mr. J. Mason; six houses, Old Park Avenue, for Messrs. B. Bennett, Ltd.; 18 houses, Northcote Road, for Mr. A. Ramsay, seven houses, Warminster Road, for Mr. C. G. Robinson; four houses, Prince of Wales Road, for Messrs. E. E. Sadlet, Ltd.

SMETHWICK. *Houses.* The Corporation has approved plans for the erection of 98 houses for the aged in Hales Lane and Taylors Lane.

# RATES OF WAGES

The initial letter opposite every entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; Column II for labourers. The rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

| | | | I s. d. | II s. d. |
|---|---|---|---|---|
| $A_1$ | ABERDARE .. | S. Wales & M. | 1 5½ | 1 1½ |
| A | Aberdeen .. | Scotland | 1 6½ | 1 2 |
| $A_1$ | Abergavenny .. | S. Wales & M. | 1 6 | 1 1½ |
| $A_3$ | Abingdon .. | S. Counties | 1 5 | 1 0½ |
| A | Accrington .. | N.W. Counties | 1 6½ | 1 2 |
| $A_3$ | Addlestone .. | S. Counties | 1 5 | 1 0½ |
| A | Adlington .. | N.W. Counties | 1 6½ | 1 2 |
| A | Airdrie .. | Scotland | *1 6½ | 1 2 |
| C | Aldeburgh .. | E. Counties | 1 2½ | 11 |
| A | Altrincham .. | N.W. Counties | 1 6½ | 1 2 |
| $B_3$ | Appleby .. | N.W. Counties | 1 3 | 11¼ |
| A | Ashton-under-Lyne | N.W. Counties | 1 6½ | 1 2 |
| $B_1$ | Aylesbury .. | S. Counties | 1 4 | 1 0 |
| $B_1$ | BANBURY .. | S. Counties | 1 4 | 1 0 |
| $B_1$ | Bangor .. | N.W. Counties | 1 4 | 1 0 |
| $A_3$ | Barnard Castle | N.E. Coast | 1 5 | 1 0½ |
| A | Barnsley .. | Yorkshire | 1 6½ | 1 2 |
| B | Barnstaple .. | S.W. Counties | 1 4½ | 1 0½ |
| A | Barrow .. | N.W. Counties | 1 6½ | 1 2 |
| A | Barry .. | S. Wales & M. | 1 6½ | 1 2 |
| $B_1$ | Basingstoke .. | S.W. Counties | 1 4 | 1 0 |
| $A_2$ | Bath .. .. | S.W. Counties | 1 5½ | 1 1½ |
| A | Batley .. | Yorkshire | 1 6½ | 1 2 |
| $A_2$ | Bedford .. | E. Counties | 1 5½ | 1 1½ |
| $A_2$ | Berwick-on Tweed .. | N.E. Coast | 1 5½ | 1 1½ |
| $A_2$ | Bewdley .. | Mid. Counties | 1 5½ | 1 1½ |
| $B_3$ | Bicester .. | S. Counties | 1 3 | 11½ |
| | Birkenhead .. | N.W. Counties | *1 7½ | 1 2½ |
| A | Birmingham .. | Mid. Counties | 1 6½ | 1 2 |
| $A_1$ | Bishop Auckland | N.E. Coast | 1 6 | 1 1½ |
| A | Blackburn .. | N.W. Counties | 1 6½ | 1 2 |
| A | Blackpool .. | N.W. Counties | 1 6½ | 1 2 |
| A | Blyth .. .. | N.E. Coast | 1 6½ | 1 2 |
| $B_1$ | Bognor .. | S. Counties | 1 4 | 1 0 |
| A | Bolton .. | N.W. Counties | 1 6½ | 1 2 |
| $A_3$ | Boston .. | Mid. Counties | 1 5 | 1 0½ |
| $A_2$ | Bournemouth .. | S. Counties | 1 5½ | 1 1½ |
| $B_2$ | Bovey Tracey .. | S.W. Counties | 1 3½ | 11½ |
| A | Bradford .. | Yorkshire | 1 6½ | 1 2 |
| $A_1$ | Brentwood .. | E. Counties | 1 6 | 1 1½ |
| A | Bridgend .. | S. Wales & M. | 1 6½ | 1 2 |
| B | Bridgwater .. | S.W. Counties | 1 4½ | 1 0½ |
| $A_1$ | Bridlington .. | Yorkshire | 1 6 | 1 1½ |
| A | Brighouse .. | Yorkshire | 1 6½ | 1 2 |
| $A_2$ | Brighton .. | S. Counties | 1 5½ | 1 1½ |
| A | Bristol .. | S.W. Counties | 1 6½ | 1 2 |
| B | Brixham .. | S.W. Counties | 1 3½ | 11½ |
| A | Bromsgrove .. | Mid. Counties | 1 5½ | 1 1½ |
| B | Bromyard .. | Mid. Counties | 1 3 | 11½ |
| A | Burnley .. | N.W. Counties | 1 6½ | 1 2 |
| A | Burslem .. | Mid. Counties | 1 6½ | 1 2 |
| A | Burton-on-Trent .. | Mid. Counties | 1 6½ | 1 2 |
| A | Bury .. .. | N.W. Counties | 1 6½ | 1 2 |
| A | Buxton .. | N.W. Counties | 1 6 | 1 1½ |
| $A_1$ | CAMBRIDGE .. | E. Counties | 1 6 | 1 1½ |
| $B_1$ | Canterbury .. | S. Counties | 1 4 | 1 0 |
| A | Cardiff .. | S. Wales & M. | 1 6½ | 1 2 |
| A | Carlisle .. | N.W. Counties | 1 6½ | 1 2 |
| B | Carmarthen .. | S. Wales & M. | 1 4½ | 1 0½ |
| B | Carnarvon .. | N.W. Counties | 1 4½ | 1 0½ |
| A | Carnforth .. | N.W. Counties | 1 6½ | 1 2 |
| A | Castleford .. | Yorkshire | 1 6½ | 1 2 |
| $A_3$ | Chatham .. | S. Counties | 1 5 | 1 0½ |
| A | Chelmsford .. | E. Counties | 1 5 | 1 0½ |
| A | Cheltenham .. | S.W. Counties | 1 5 | 1 0½ |
| A | Chester .. | N.W. Counties | 1 6½ | 1 2 |
| A | Chesterfield .. | Mid. Counties | 1 6½ | 1 2 |
| $B_1$ | Chichester .. | S. Counties | 1 4 | 1 0 |
| A | Chorley .. | N.W. Counties | 1 6½ | 1 2 |
| $B_1$ | Cirencester .. | S. Counties | 1 4 | 1 0 |
| A | Clitheroe .. | N.W. Counties | 1 6½ | 1 2 |
| A | Clydebank .. | Scotland | 1 6½ | 1 2 |
| A | Coalville .. | Mid. Counties | 1 6½ | 1 2 |
| $A_2$ | Colchester .. | E. Counties | 1 5½ | 1 1½ |
| A | Colne .. .. | N.W. Counties | 1 6 | 1 1½ |
| $A_2$ | Colwyn Bay .. | N.W. Counties | 1 5½ | 1 1½ |
| $A_1$ | Consett .. | N.E. Coast | 1 6 | 1 1½ |
| $A_2$ | Conway .. | N.W. Counties | 1 5½ | 1 1½ |
| A | Coventry .. | Mid. Counties | 1 6½ | 1 2 |
| $A_2$ | Crewe .. | N.W. Counties | 1 5½ | 1 1½ |
| A | Cumberland .. | N.W. Counties | 1 5 | 1 0½ |
| A | DARLINGTON .. | N.E. Coast | 1 6½ | 1 2 |
| A | Darwen .. | N.W. Counties | 1 6½ | 1 2 |
| $B_1$ | Deal .. .. | S. Counties | 1 4 | 1 0 |
| $A_3$ | Denbigh .. | N.W. Counties | 1 5 | 1 0½ |
| A | Derby .. | Mid. Counties | 1 6½ | 1 2 |
| A | Dewsbury .. | Yorkshire | 1 6½ | 1 2 |
| B | Didcot .. | S. Counties | 1 4½ | 1 0½ |
| A | Doncaster .. | Yorkshire | 1 6½ | 1 2 |
| $B_1$ | Dorchester .. | S.W. Counties | 1 4 | 1 0 |
| A | Driffield .. | Yorkshire | 1 5 | 1 0½ |
| $A_3$ | Droitwich .. | Mid. Counties | 1 5½ | 1 1½ |
| A | Dudley .. | Mid. Counties | 1 6½ | 1 2 |
| $A_2$ | Dumfries .. | Scotland | 1 6 | 1 1½ |
| A | Dundee .. | Scotland | 1 6½ | 1 2 |
| A | Durham .. | N.E. Coast | 1 6½ | 1 2 |
| $A_2$ | EASTBOURNE .. | S. Counties | 1 5½ | 1 1½ |
| $A_1$ | Ebbw Vale .. | S. Wales & M. | 1 6 | 1 1½ |
| A | Edinburgh .. | Scotland | 1 6½ | 1 2 |
| $A_1$ | E. Glamorgan-shire. Rhondda Valley District | S. Wales & M. | 1 6 | 1 1½ |
| $A_2$ | Exeter .. .. | S.W. Counties | *1 5½ | 1 1½ |
| B | Exmouth .. | S.W. Counties | 1 4½ | 1 0½ |
| $A_3$ | FELIXSTOWE .. | E. Counties | 1 5 | 1 0½ |
| A | Filey .. .. | Yorkshire | 1 5 | 1 0½ |
| A | Fleetwood .. | N.W. Counties | 1 6½ | 1 2 |
| $B_1$ | Folkestone .. | S. Counties | 1 4 | 1 0 |
| A | Frodsham .. | N.W. Counties | 1 6½ | 1 2 |
| $B_2$ | Frome .. | S.W. Counties | 1 3½ | 11½ |
| A | GATESHEAD .. | N.E. Coast | 1 6½ | 1 2 |
| B | Gillingham .. | S. Counties | 1 4½ | 1 0½ |
| A | Glasgow .. | Scotland | 1 7 | 1 2½ |
| $A_2$ | Gloucester .. | S.W. Counties | 1 5½ | 1 1½ |
| $A_2$ | Goole .. .. | Yorkshire | 1 5½ | 1 1½ |
| $A_2$ | Gosport .. | S. Counties | 1 5½ | 1 1½ |
| $A_3$ | Grantham .. | Mid. Counties | 1 5 | 1 0½ |
| $A_1$ | Gravesend .. | S. Counties | 1 6 | 1 1½ |
| A | Greenock .. | Scotland | *1 6½ | 1 2 |
| A | Grimsby .. | Yorkshire | 1 6½ | 1 2 |
| B | Guildford .. | S. Counties | 1 4½ | 1 0½ |
| A | HALIFAX .. | Yorkshire | 1 6½ | 1 2 |
| A | Hanley .. | Mid. Counties | 1 6½ | 1 2 |
| A | Harrogate .. | Yorkshire | 1 6½ | 1 2 |
| A | Hartlepools .. | N.E. Coast | 1 6½ | 1 2 |
| B | Harwich .. | E. Counties | 1 4½ | 1 0½ |
| $B_1$ | Hastings .. | S. Counties | 1 4 | 1 0 |
| $A_2$ | Hatfield .. | S. Counties | 1 5½ | 1 1½ |
| B | Hereford .. | S.W. Counties | 1 4½ | 1 0½ |
| $A_2$ | Hertford .. | E. Counties | 1 5½ | 1 1½ |
| A | Heysham .. | N.W. Counties | 1 6½ | 1 2 |
| A | Howden .. | N.E. Coast | 1 6½ | 1 2 |
| A | Huddersfield .. | Yorkshire | 1 6½ | 1 2 |
| A | Hull .. .. | Yorkshire | 1 6½ | 1 2 |
| A | ILKLEY .. | Yorkshire | 1 6½ | 1 2 |
| A | Immingham .. | Mid. Counties | 1 6½ | 1 2 |
| $A_2$ | Ipswich .. | E. Counties | 1 5½ | 1 1½ |
| $B_2$ | Isle of Wight .. | S. Counties | 1 4½ | 1 0½ |
| A | JARROW .. | N.E. Coast | 1 6½ | 1 2 |
| A | KEIGHLEY .. | Yorkshire | 1 6½ | 1 2 |
| $A_3$ | Kendal .. | N.W. Counties | 1 5 | 1 0½ |
| $A_3$ | Keswick .. | N.W. Counties | 1 5 | 1 0½ |
| $A_1$ | Kettering .. | Mid. Counties | 1 6 | 1 1½ |
| $A_2$ | Kidderminster | Mid. Counties | 1 5½ | 1 1½ |
| $B_1$ | King's Lynn .. | E. Counties | 1 4 | 1 0 |
| A | LANCASTER .. | N.W. Counties | 1 6½ | 1 2 |
| $A_1$ | Leamington .. | Mid. Counties | 1 6 | 1 1½ |
| A | Leeds .. .. | Yorkshire | 1 6½ | 1 2 |
| A | Leek .. .. | Mid. Counties | 1 6½ | 1 2 |
| A | Leicester .. | Mid. Counties | 1 6½ | 1 2 |
| A | Leigh .. .. | N.W. Counties | 1 6½ | 1 2 |
| B | Lewes .. .. | S. Counties | 1 3 | 11½ |
| $A_2$ | Lichfield .. | Mid. Counties | 1 5½ | 1 1½ |
| A | Lincoln .. .. | Mid. Counties | 1 6½ | 1 2 |
| | Liverpool .. | N.W. Counties | *1 8 | 1 3 |
| $A_2$ | Llandudno .. | N.W. Counties | 1 5½ | 1 1½ |
| A | Llanelly .. | S. Wales & M. | 1 6½ | 1 2 |
| | London (12-miles radius) | | 1 8 | 1 3 |
| | Do. (12-15 miles radius) | | 1 7½ | 1 2½ |
| A | Long Eaton .. | Mid. Counties | 1 6½ | 1 2 |
| A | Loughborough .. | Mid. Counties | 1 6½ | 1 2 |
| $A_1$ | Luton .. .. | E. Counties | 1 6 | 1 1½ |
| A | Lytham .. | N.W. Counties | 1 6½ | 1 2 |
| $A_1$ | MACCLESFIELD | N.W. Counties | 1 6 | 1 1½ |
| $A_3$ | Maidstone .. | S. Counties | 1 5 | 1 0½ |
| $A_3$ | Malvern .. | Mid. Counties | 1 5 | 1 0½ |
| A | Manchester .. | N.W. Counties | 1 6½ | 1 2 |
| A | Mansfield .. | Mid. Counties | 1 6½ | 1 2 |
| $B_1$ | Margate .. | S. Counties | 1 4 | 1 0 |
| A | Matlock .. | Mid. Counties | 1 5 | 1 0½ |
| $A_1$ | Merthyr .. | S. Wales & M. | 1 6 | 1 1½ |
| A | Middlesbrough | N. E. Coast | 1 6½ | 1 2 |
| $A_3$ | Middlewich .. | N.W. Counties | 1 5½ | 1 1½ |
| $B_2$ | Minehead .. | S.W. Counties | 1 3½ | 11½ |
| $B_2$ | Monmouth .. & S. and E. Glamorganshire | S. Wales & M. | 1 3½ | 11½ |
| A | Morecambe .. | N.W. Counties | 1 6½ | 1 2 |
| $A_2$ | NANTWICH .. | N.W. Counties | 1 5½ | 1 1½ |
| A | Neath .. .. | S. Wales & M. | 1 6½ | 1 2 |
| A | Nelson .. | N.W. Counties | 1 6½ | 1 2 |
| A | Newcastle .. | N.E. Coast | 1 6½ | 1 2 |
| A | Newport .. | S. Wales & M. | 1 6½ | 1 2 |
| A | Normanton .. | Yorkshire | 1 6½ | 1 2 |
| A | Northampton .. | Mid. Counties | 1 6½ | 1 2 |
| A | North Staffs .. | Mid. Counties | 1 6½ | 1 2 |
| A | North Shields .. | N.E. Coast | 1 6½ | 1 2 |
| $A_1$ | Norwich .. | E. Counties | 1 6 | 1 1½ |
| A | Nottingham .. | Mid. Counties | 1 6½ | 1 2 |
| A | Nuneaton .. | Mid. Counties | 1 6½ | 1 2 |
| A | OAKHAM .. | Mid. Counties | 1 5 | 1 0½ |
| A | Oldham .. | N.W. Counties | 1 6½ | 1 2 |
| $A_3$ | Oswestry .. | N.W. Counties | 1 5 | 1 0½ |
| $A_1$ | Oxford .. | S. Counties | 1 6 | 1 1½ |
| A | PAISLEY .. | Scotland | *1 6½ | 1 2 |
| $B_3$ | Pembroke .. | S. Wales & M. | 1 3 | 11¼ |
| A | Perth .. .. | Scotland | *1 6½ | 1 2 |
| $A_1$ | Peterborough .. | E. Counties | 1 6 | 1 1½ |
| A | Plymouth .. | S.W. Counties | *1 6½ | 1 2 |
| A | Pontefract .. | Yorkshire | 1 6½ | 1 2 |
| $A_1$ | Pontypridd .. | S. Wales & M. | 1 6 | 1 1½ |
| $A_3$ | Portsmouth .. | S. Counties | 1 5½ | 1 1½ |
| A | Preston .. | N.W. Counties | 1 6½ | 1 2 |
| A | QUEENSFERRY .. | N.W. Counties | 1 6½ | 1 2 |
| $A_2$ | READING .. | S. Counties | 1 5½ | 1 1½ |
| B | Reigate .. | S. Counties | 1 4½ | 1 0½ |
| A | Retford .. | Mid. Counties | 1 5 | 1 0½ |
| $A_1$ | Rhondda Valley | S. Wales & M. | 1 6 | 1 1½ |
| A | Ripon .. .. | Yorkshire | 1 5 | 1 0½ |
| A | Rochdale .. | N.W. Counties | 1 6½ | 1 2 |
| B | Rochester .. | S. Counties | 1 4½ | 1 0½ |
| $A_1$ | Ruabon .. | N.W. Counties | 1 6 | 1 1½ |
| A | Rugby .. | Mid. Counties | 1 6½ | 1 2 |
| $A_2$ | Rugeley .. | Mid. Counties | 1 5½ | 1 1½ |
| A | Runcorn .. | N.W. Counties | 1 6½ | 1 2 |
| $A_1$ | ST. ALBANS .. | E. Counties | 1 6 | 1 1½ |
| A | St. Helens .. | N.W. Counties | 1 6½ | 1 2 |
| $B_3$ | Salisbury .. | S.W. Counties | 1 3½ | 11½ |
| $A_1$ | Scarborough .. | Yorkshire | 1 6 | 1 1½ |
| A | Scunthorpe .. | Mid. Counties | 1 6½ | 1 2 |
| A | Sheffield .. | Yorkshire | 1 6½ | 1 2 |
| A | Shipley .. | Yorkshire | 1 6½ | 1 2 |
| $A_2$ | Shrewsbury .. | Mid. Counties | 1 5½ | 1 1½ |
| $A_2$ | Skipton .. | Yorkshire | 1 5½ | 1 1½ |
| $A_2$ | Slough .. | S. Counties | 1 5½ | 1 1½ |
| $A_1$ | Solihull .. | Mid. Counties | 1 6 | 1 1½ |
| $A_2$ | Southampton .. | S. Counties | 1 5½ | 1 1½ |
| $A_1$ | Southend-on-Sea .. | E. Counties | 1 6 | 1 1½ |
| A | Southport .. | N.W. Counties | 1 6½ | 1 2 |
| A | S. Shields .. | N.E. Coast | 1 6½ | 1 2 |
| $A_1$ | Stafford .. | Mid. Counties | 1 6 | 1 1½ |
| A | Stirling .. | Scotland | 1 7 | 1 2½ |
| A | Stockport .. | N.W. Counties | 1 6½ | 1 2 |
| A | Stockton-on-Tees .. | N.E. Coast | 1 6½ | 1 2 |
| A | Stoke-on-Trent .. | Mid. Counties | 1 6½ | 1 2 |
| B | Stroud .. .. | S.W. Counties | 1 4½ | 1 0½ |
| A | Sunderland .. | N.E. Coast | 1 6½ | 1 2 |
| A | Swansea .. | S. Wales & M. | 1 6½ | 1 2 |
| A | Swindon .. | S.W. Counties | 1 5 | 1 0½ |
| $A_1$ | TAMWORTH .. | N.W. Counties | 1 6 | 1 1½ |
| B | Taunton .. | S.W. Counties | 1 4½ | 1 0½ |
| A | Teesside Dist. .. | N.E. Counties | 1 6½ | 1 2 |
| $A_2$ | Teignmouth .. | S.W. Coast | 1 5½ | 1 1½ |
| A | Todmorden .. | Yorkshire | 1 6½ | 1 2 |
| $A_1$ | Torquay .. | S.W. Counties | 1 6 | 1 1½ |
| $B_2$ | Truro .. .. | S.W. Counties | 1 3½ | 11½ |
| $A_3$ | Tunbridge Wells .. | S. Counties | 1 5 | 1 0½ |
| A | Tunstall .. | Mid. Counties | 1 6½ | 1 2 |
| A | Tyne District | N.E. Coast | 1 6½ | 1 2 |
| A | WAKEFIELD .. | Yorkshire | 1 6½ | 1 2 |
| A | Walsall .. | Mid. Counties | 1 6½ | 1 2 |
| A | Warrington .. | N.W. Counties | 1 6½ | 1 2 |
| $A_1$ | Warwick .. | Mid. Counties | 1 6 | 1 1½ |
| $A_1$ | Wellingborough | Mid. Counties | 1 6 | 1 1½ |
| A | West Bromwich | Mid. Counties | 1 6½ | 1 2 |
| $A_2$ | Weston-s.-Mare | W. Counties | 1 5½ | 1 1½ |
| $A_2$ | Whitby .. | Yorkshire | 1 5½ | 1 1½ |
| A | Widnes .. | N.W. Counties | 1 6½ | 1 2 |
| A | Wigan .. | N.W. Counties | 1 6½ | 1 2 |
| B | Winchester .. | S. Counties | 1 4½ | 1 0½ |
| $A_2$ | Windsor .. | S. Counties | 1 5½ | 1 0½ |
| A | Wolverhampton | Mid. Counties | 1 6½ | 1 2 |
| $A_2$ | Worcester .. | Mid. Counties | 1 5½ | 1 1½ |
| $A_3$ | Worksop .. | Yorkshire | 1 5 | 1 0½ |
| $A_1$ | Wrexham .. | N.W. Counties | 1 6 | 1 1½ |
| A | Wycombe .. | S. Counties | 1 5 | 1 0½ |
| B | YARMOUTH .. | E. Counties | 1 4½ | 1 0½ |
| B | Yeovil .. | S.W. Counties | 1 4½ | 1 0½ |
| A | York .. .. | Yorkshire | 1 6½ | 1 2 |

* In these areas the rates of wages for certain trades (usually painters and plasterers) vary slightly from those given.

The rates for every trade in any given area will be sent on request.

# CURRENT PRICES

The wages are the standard Union rates of wages payable in London at the time of publication. The prices given below are for materials of good quality and include delivery to site in Central London area, unless otherwise stated. For delivery outside this area, adjustment should be made for the cost of transport. Though every care has been taken in its compilation, it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry. The whole of the information given is copyright.

## WAGES

| | | s. | d. |
|---|---|---|---|
| Bricklayer | per hour | 1 | 8 |
| Carpenter | " | 1 | 8 |
| Joiner | " | 1 | 8 |
| Machinist | " | 1 | 8 |
| Mason (Banker) | " | 1 | 8 |
| " (Fixer) | " | 1 | 9 |
| Plumber | " | 1 | 8 |
| Painter | " | 1 | 7 |
| Paperhanger | " | 1 | 7 |
| Glazier | " | 1 | 7 |
| Slater | " | 1 | 8 |
| Scaffolder | " | 1 | 4 |
| Timberman | " | 1 | 4 |
| Navvy | " | 1 | 3 |
| General Labourer | " | 1 | 3 |
| Lorryman | " | 1 | 5½ |
| Crane Driver | " | 1 | 7 |
| Watchman | per week | 2 | 10 |

## MATERIALS

### EXCAVATOR AND CONCRETOR

| | | £ | s. | d. |
|---|---|---|---|---|
| Grey Stone Lime | per ton | 2 | 2 | 0 |
| Blue Lias Lime | " | 1 | 16 | 6 |
| Hydrated Lime | " | 3 | 0 | 9 |
| Portland Cement, in 4 ton lots (d/d site, including Paper Bags) | " | 1 | 19 | 0 |
| Rapid Hardening Cement, in 4-ton lots (d/d site, including Paper Bags) | " | 2 | 5 | 0 |
| White Portland Cement, in 1 ton lots | " | 8 | 15 | 0 |
| Thames Ballast | per Y.C. | | 6 | 6 |
| ¾" Crushed Ballast | " | | 7 | 0 |
| Building Sand | " | | 7 | 6 |
| Washed Sand | " | | 8 | 6 |
| 2" Broken Brick | " | | 8 | 0 |
| ¾" " " | " | | 10 | 3 |
| Pan Breeze | " | | 6 | 6 |
| Coke Breeze | " | | 8 | 9 |

### DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

| | | 4" s. | d. | 6" s. | d. |
|---|---|---|---|---|---|
| Straight Pipes | per F.R. | 0 | 9 | 1 | 1 |
| Bends | each | 1 | 9 | 2 | 6 |
| Taper Bends | " | 3 | 6 | 5 | 3 |
| Rest Bends | " | 4 | 3 | 6 | 3 |
| Single Junctions | " | 3 | 6 | 5 | 3 |
| Double " | " | 4 | 9 | 6 | 6 |
| Straight channels | per F.R. | 1 | 6 | 2 | 6 |
| ¾" Channel bends | each | 2 | 9 | 4 | 0 |
| Channel junctions | " | 4 | 6 | 6 | 6 |
| Channel tapers | " | 2 | 9 | 4 | 0 |
| Yard gullies | " | 6 | 9 | 8 | 9 |
| Interceptors | " | 16 | 0 | 19 | 6 |
| IRON DRAINS: | | | | | |
| Iron drain pipe | per F.R | 1 | 6 | 2 | 6 |
| Bends | each | 5 | 0 | 10 | 6 |
| Inspection bends | " | 9 | 0 | 15 | 0 |
| Single junctions | " | 8 | 9 | 18 | 0 |
| Double junctions | " | 13 | 6 | 30 | 0 |
| Lead Wool | lb. | | 6 | | — |
| Gaskin | " | | 5 | | — |

### BRICKLAYER

| | | £ | s. | d. |
|---|---|---|---|---|
| Fletton | per M. | 2 | 15 | 0 |
| Grooved do. | " | 2 | 17 | 0 |
| Phorpres bricks | " | 2 | 15 | 0 |
| " Cellular bricks | " | 2 | 15 | 0 |
| Stocks, 1st quality | " | 4 | 11 | 0 |
| " 2nd " | " | 4 | 2 | 6 |
| Blue Bricks, Pressed | " | 8 | 17 | 6 |
| " Wirecuts | " | 7 | 17 | 6 |
| " Brindles | " | 7 | 0 | 0 |
| " Bullnose | " | 9 | 0 | 0 |
| Red Sand-faced Facings | " | 6 | 18 | 6 |
| Red Rubbers for Arches | " | 12 | 0 | 0 |
| Multicoloured Facings | " | 7 | 10 | 0 |
| Luton Facings | " | 7 | 10 | 0 |
| Phorpres White Facings | " | 3 | 17 | 3 |
| " Rustic Facings | " | 3 | 12 | 3 |
| Midhurst White Facings | " | 5 | 0 | 0 |
| Glazed Bricks, Ivory, White or Salt glazed, 1st quality: | | | | |
| Stretchers | " | 21 | 0 | 0 |
| Headers | " | 20 | 10 | 0 |
| Bullnose | " | 27 | 10 | 0 |
| Double Stretchers | " | 29 | 10 | 0 |
| Double Headers | " | 26 | 10 | 0 |
| Glazed Second Quality, *Less* | " | 1 | 0 | 0 |
| " Buffs and Creams, *Add* | " | 2 | 0 | 0 |
| " Other Colours | " | 5 | 10 | 0 |
| 2" Breeze Partition Blocks | per Y.S. | | 1 | 7 |
| 2½" " " " | " | | 1 | 10 |
| 3" " " " | " | | 2 | 1 |
| 4" " " " | " | | 2 | 6 |

### MASON

| The following d/d F.O.R. at Nine Elms: | | s. | d. |
|---|---|---|---|
| Portland stone, Whitbed | F.C. | 4 | 4½ |
| " Basebed | " | 4 | 7½ |
| Bath stone | " | 2 | 10 |
| York stone | " | 6 | 6 |
| " " Sawn templates | " | 7 | 6 |
| " " Paving, 2" | F.S. | 1 | 8 |
| " 3" | " | 2 | 6 |

### SLATER AND TILER

First quality Bangor or Portmadoc slates d/d F.O.R. London station:

| | | £ | s. | d. |
|---|---|---|---|---|
| 24"×12" Duchesses | per M. | 28 | 17 | 6 |
| 22"×12" Marchionesses | " | 24 | 10 | 0 |
| 20"×10" Countesses | " | 19 | 5 | 0 |
| 18"×10" Viscountesses | " | 15 | 10 | 0 |
| 18"× 9" Ladies | " | 13 | 17 | 6 |
| Westmorland green (random sizes) | per ton | 8 | 10 | 0 |
| Old Delabole slates d/d in full truck loads to Nine Elms Station: | | | | |
| 20"×10" medium grey per 1,000 (actual) | | 21 | 11 | 6 |
| " " green " " | | 24 | 7 | 4 |
| Best machine roofing tiles | " | 4 | 5 | 0 |
| Best hand-made do. | " | 4 | 17 | 6 |
| Hips and valleys | each | | | 9 |
| " hand-made | " | | | 9½ |
| Nails, compo | lb. | | 1 | 4 |
| " copper | " | | 1 | 6 |

### CARPENTER AND JOINER

| | | s. | d. |
|---|---|---|---|
| Good carcassing timber | F.C. | 2 | 2 |
| Birch | as 1" F.S. | | 9 |
| Deal, Joiner's | " " | | 5 |
| " " 2nds | " " | | 4 |
| Mahogany, Honduras | " " | 1 | 3 |
| " Atrican | " " | 1 | 1 |
| " Cuban | " " | 2 | 6 |
| Oak, plain American | " " | 1 | 0 |
| " Figured " | " " | 1 | 3 |
| " plain Japanese | " " | 1 | 2 |
| " Figured " | " " | 1 | 5 |
| " Austrian wainscot | " " | 1 | 6 |
| " English | " " | 1 | 11 |
| Pine, Yellow | " " | 1 | 0 |
| " Oregon | " " | | 4 |
| " British Columbian | " " | | 4 |
| Teak, Moulmein | " " | 1 | 3 |
| " Burma | " " | 1 | 2 |
| Walnut, American | " " | 2 | 3 |
| " French | " " | 2 | 3 |
| Whitewood, American | " " | 1 | 1 |
| Deal floorings, ¾" | Sq. | 18 | 6 |
| " 1" | " | 1 | 1 | 6 |
| " 1¼" | " | 1 | 2 | 0 |
| " 1½" | " | 1 | 5 | 0 |
| " 1¾" | " | 1 | 10 | 0 |
| Deal matchings, ¾" | " | | 14 | 0 |
| " 1" | " | | 15 | 6 |
| Rough boarding, ¾" | " | 1 | 4 | 0 |
| " 1" | " | | 16 | 0 |
| " 1¼" | " | | 18 | 0 |
| Plywood, per ft. sup. | " | 1 | 6 | 0 |

| Thickness | ¼" | | | ⅜" | | | ½" | | | ⅝" | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Qualities | A d. | B d. | BB d. | A d. | B d. | BB d. | A d. | B d. | BB d. | A d. | B d. | BB d. |
| Birch 60×48 | 4 | 2½ | 2 | 5 | 3 | 2½ | 7 | 5 | 4 | 8 | 6 | 5 |
| Cheap Alder | – | 2 | 1½ | – | 3½ | 2 | – | – | – | – | – | – |
| Oregon Pine | – | 2½ | – | 3 | 2½ | – | 4 | 3½ | – | 5 | 4½ | – |
| Gaboon Mahogany | 4 | 3½ | – | 5 | 4½ | – | 7 | 6½ | – | 8 | 7 | – |
| Figured Oak | 6½ | 5 | – | 7½ | 5½ | – | 10 | 8 | 0 | 1/- | 9 | – |

| | | d. |
|---|---|---|
| Scotch glue | lb. | 8 |

### SMITH AND FOUNDER

Tubes and Fittings:
(The following are the standard list prices, from which should be deducted the various percentages as set forth below.)

| | ¼" | ⅜" | ½" | ¾" | 1" |
|---|---|---|---|---|---|
| Tubes, 2'-14' long, per ft. run | 4 | 5½ | 9½ | 1/1 | 1/10 |
| Pieces, 12"-23" long each | 10 | 1/1 | 1/11 | 2/8 | 4/9 |
| " 3"-11½" long " | 7 | 9 | 1/3 | 1/8 | 3/– |
| Long screws, 12"-23½" long " | 11 | 1/3 | 2/2 | 2/10 | 5/3 |
| " " 3" M-½" long " | 8 | 10 | 1/5 | 1/11 | 3/6 |
| Bends | 8 | 11 | 1/7½ | 2/7½ | 5/2 |
| Springs not socketed | 5 | 7 | 1/1½ | 1/11½ | 3/11 |
| Socket unions | 2/– | 3/– | 5/6 | 6/9 | 10/– |
| Elbows, square | 10 | 1/1 | 1/6 | 2/2 | 4/3 |
| Tees | 1/– | 1/3 | 1/10 | 2/6 | 5/1 |
| Crosses | 2/2 | 2/9 | 4/1 | 5/6 | 10/6 |
| Plain sockets and nipples | 3 | 4 | 6 | 8 | 1/3 |
| Diminished sockets | 4 | 6 | 9 | 1/– | 2/– |
| Flanges | 9 | 1/– | 1/4 | 1/9 | 2/9 |
| Caps | 3½ | 5 | 8 | 1/– | 2/– |
| Backnuts | 2 | 3 | 5 | 6 | 1/1 |
| Iron main cocks | 1/6 | 2/3 | 4/2 | 5/4 | 11/6 |
| " with brass plugs | — | 4/– | 7/6 | 10/– | 21/– |

| | | 1¼" | 1½" | 2" |
|---|---|---|---|---|
| Tubes, 2'-14' long, per ft. run | | 1/11 | 1/10 | 2/6 |
| Pieces, 12"-23" long | each | 2/8 | 4/9 | 6/– |
| " 3"-11½" long | " | 1/8 | 3/– | 4/6 |
| Long screws, 12"-23½" long | " | 2/10 | 5/3 | 7/– |
| " " 3" M-½" long | " | 1/11 | 3/6 | 4/6 |
| Bends | " | 2/7½ | 5/2 | 7/– |
| Springs not socketed | " | 1/11½ | 3/11 | 5/– |
| Socket unions | " | 5/6 | 10/– | 13/– |
| Elbows, square | " | 2/6 | 4/3 | 5/6 |
| Tees | " | 2/6 | 5/1 | 6/6 |
| Crosses | " | 5/6 | 10/6 | 13/6 |
| Plain sockets and nipples | " | 1/3 | 2/3 | 3/– |
| Diminished sockets | " | 1/– | 2/– | 2/6 |
| Flanges | " | 1/9 | 2/9 | 3/6 |
| Caps | " | 1/– | 2/– | 2/6 |
| Backnuts | " | 6 | 1/1 | 1/6 |
| Iron main cocks | " | 5/4 | 11/6 | 14/6 |
| " with brass plugs | " | 7/6 | 21/– | 26/– |

| Discounts: TUBES. | Per cent. | | Per cent. |
|---|---|---|---|
| Gas | 65 | Galvanized gas | 52½ |
| Water | 61½ | " water | 47½ |
| Steam | 57½ | " steam | 42½ |
| FITTINGS. | | | |
| Gas | 57½ | Galvanized gas | 47½ |
| Water | 52½ | " water | 42½ |
| Steam | 47½ | " steam | 37½ |

### SMITH AND FOUNDER—*continued*

| | | s. | d. |
|---|---|---|---|
| Rolled steel joists cut to length | cwt. | 12 | 9 |
| Mild steel reinforcing rods, ⅜" | " | 10 | 6 |
| " " ½" | " | 10 | 3 |
| " " ⅝" | " | 10 | 0 |
| " " ¾" | " | 9 | 8 |
| " " ⅞" | " | 9 | 6 |
| " " 1" | " | 9 | 6 |
| " " 1¼" | " | 9 | 6 |
| " " 1½" | " | 9 | 6 |

| | | F.R. | 4" s. | d. | 4" s. | d. |
|---|---|---|---|---|---|---|
| Cast-iron rain-water pipes of ordinary thickness metal | F.R. | | 8 | | 10 | |
| Shoes | each | | 2 | 0 | 3 | 0 |
| Anti-splash shoes | " | | 4 | 6 | 8 | 0 |
| Boots | " | | 3 | 0 | 4 | 0 |
| Bends | " | | 2 | 7 | 3 | 9 |
| " with access door | " | | — | | 6 | 3 |
| Heads | " | | 4 | 0 | 5 | 0 |
| Swan-necks up to 9" offsets | " | | 3 | 9 | 6 | 0 |
| Plinth bends, 4½" to 6" | " | | 3 | 9 | 5 | 3 |
| Half-round rain-water gutters of ordinary thickness metal | F.R. | | 5 | | 6 | |
| Stop ends | each | | 6 | | 6 | |
| Angles | " | | 1 | 7 | 1 | 11 |
| Obtuse angles | " | | 2 | 0 | 2 | 6 |
| Outlets | " | | 1 | 9 | 2 | 3 |

### PLUMBER

| | | s. | d. |
|---|---|---|---|
| Lead, milled sheets | cwt. | 24 | 6 |
| " drawn pipes | " | 24 | 6 |
| " soil pipe | " | 30 | 0 |
| " scrap | " | 16 | 0 |
| Solder, plumbers' | lb. | | 9½ |
| " fine do. | " | 1 | 0 |
| Copper, sheet | " | | 8½ |
| " tubes | " | | 11 |

| L.C.C. soil and waste pipes: | | 3" | 4" | 6" |
|---|---|---|---|---|
| Plain cast | F.R. | 1 0 | 1 2 | 2 6 |
| Coated | " | 1 1 | 1 3 | 2 8 |
| Galvanized | " | 2 0 | 2 6 | 4 6 |
| Holderbats | each | 3 10 | 4 0 | 4 9 |
| Bends | " | 3 9 | 5 3 | 10 3 |
| Shoes | " | 2 10 | 4 4 | 9 6 |
| Heads | " | 4 8 | 8 5 | 12 9 |

### PLASTERER

| | | £ | s. | d. |
|---|---|---|---|---|
| Lime, chalk | per ton | 2 | 5 | 0 |
| Plaster, coarse | " | 2 | 10 | 0 |
| " fine | " | 4 | 15 | 0 |
| Hydrated lime | " | 3 | 0 | 9 |
| Sirapite | " | 3 | 6 | 0 |
| Keene's cement | " | 5 | 0 | 0 |
| Gothite Plaster | " | 3 | 6 | 0 |
| Pioneer Plaster | " | 3 | 6 | 0 |
| Thistle plaster | " | 3 | 6 | 0 |
| Sand, washed | Y.C. | | 11 | 6 |
| Hair | lb. | | | 6 |
| Laths, sawn | bundle | | 2 | 4 |
| " rent | " | | 3 | 9 |
| Lath nails | lb. | | | 3 |

### GLAZIER

| | s. | d. | s. | d. |
|---|---|---|---|---|
| Sheet glass, 21 oz., squares n/e 2 ft. | | | s. F.S. | 2½ |
| " " 26 oz. " " | | | " | 3 |
| Flemish, Arctic, Figures (white)* | | | " | 7 |
| Blazoned glasses | | | " | 2 6 |
| Reeded: Cross Reeded | | | " | 11 |
| Cathedral glass, white, double-rolled, plain, hammered, rimpled, waterwite | | | " | 6 |
| Crown sheet glass (n/e 12 in. x. 10 in.) | | | " | 2 0 |
| Flashed opals (white and coloured) | " 1 0 | and | 2 0 | |
| ¼" rough cast: rolled plate | | | " | 5½ |
| ¼" wired cast; wired rolled | | | " | 9½ |
| ¼" Georgian wired cast | | | " | 11 |
| ¼" Polished plate, n/e 1 ft. | | | " †10 to | ‡1 1 |
| " " 2 | | | " †1 2 " | ‡1 4 |
| " " 4 | | | " †2 3 " | ‡2 6 |
| " " 8 | | | " †2 9 " | ‡3 2 |
| " " 20 | | | " †3 7 " | ‡4 2 |
| " " 45 | | | " †3 11 " | ‡4 7 |
| " " 100 | | | " †5 0 " | ‡5 7 |
| Vita glass, sheet, n/e 1 ft. | | | | 1 0 |
| " " " 2 ft. | | | | 1 3 |
| " " " over 2 ft. | | | | 1 9 |
| " " plate, n/e 1 ft. | | | | 1 6 |
| " " " 2 ft. | | | | 3 0 |
| " " " 5 ft. | | | | 4 0 |
| " " " 7 ft. | | | | 5 0 |
| " " " 15 ft. | | | | 6 0 |
| " " " over 15 ft. | | | | 7 6 |
| "Calorex" sheet 21 oz., and 32 oz. | " 2 | 6 and | 3 6 | |
| " rough cast ¼" and ¼" | " | 8½ " | 1 0 | |
| Putty, linseed oil | lb. | | | 3 |

* *Colours, id. F.S. extra.*
† *Ordinary glazing quality.* ‡ *Selected glazing quality.*

### PAINTER

| | | £ | s. | d. |
|---|---|---|---|---|
| White lead in 1 cwt. casks | cwt. | 2 | 8 | 6 |
| Linseed oil | gall. | | 2 | 3 |
| Boiled oil | " | | 2 | 9 |
| Turpentine | " | | 4 | 1½ |
| Patent knotting | " | | 14 | 0 |
| Distemper, washable | cwt. | 2 | 0 | 0 |
| " ordinary | " | 2 | 0 | 0 |
| Whitening | " | | 4 | 0 |
| Size, double | firkin | | 3 | 0 |
| Copal varnish | gall. | | 13 | 0 |
| Flat varnish | " | | 14 | 0 |
| Outside varnish | " | | 16 | 0 |
| White enamel | " | 1 | 15 | 0 |
| Ready mixed paint | " | | 13 | 6 |
| Brunswick black | " | | 7 | 6 |

# CURRENT PRICES FOR MEASURED WORK

The following prices are for work to new buildings of average size, executed under normal conditions in the London area. They include establishment charges and profit. While every care has been taken in its compilation, no responsibility can be accepted for the accuracy of the list. The whole of the information given is copyright.

## EXCAVATOR AND CONCRETOR

| | | £ s. d. |
|---|---|---|
| Digging over surface n/e 12" deep and cart away | Y.S. | 2 9 |
| " to reduce levels n/e 5' 0" deep and cart away | Y.C. | 8 6 |
| " to form basement n/e 5' 0" and cart away | " | 9 0 |
| " " 10' 0" deep and cart away | " | 9 6 |
| " " 15' 0" deep and cart away | " | 10 0 |
| If in stiff clay | add " | 6 |
| If in underpinning | " | 4 0 |
| Planking and strutting to sides of excavation | F.S. | 1 0 |
| " " to pier holes | " | 5 |
| " " to trenches | " | 5 |
| " " extra, only if left in | " | 3 |
| Hardcore, filled in and rammed | Y.C. | 10 0 |
| Portland cement concrete in foundations (6–1) | " | 1 6 0 |
| " " (4-2-1) | " | 1 12 6 |
| " " underpinning | " | 1 16 0 |
| Finishing surface of concrete, space face | Y.S | 7 |

## DRAINLAYER

| | | 4" s. d. | 6" s. d. |
|---|---|---|---|
| Stoneware drains, laid complete (digging and concrete to be priced separately) | F.R. | 1 6 | 2 3 |
| Extra, only for bends | Each | 2 8 | 3 9 |
| " " junctions | " | 3 9 | 4 6 |
| Gullies and gratings | " | 16 6 | 18 0 |
| Cast iron drains, and laying and jointing | F.R. | 4 9 | 6 9 |
| Extra, only for bends | Each | 10 6 | 15 6 |

## BRICKLAYER

| | | £ s. d. |
|---|---|---|
| Brickwork, Flettons in lime mortar | Per Rod | 26 10 0 |
| " " in cement | " | 27 12 6 |
| " Stocks in cement | " | 34 0 0 |
| " Blues in cement | " | 50 0 0 |
| Extra only for circular on plan | " | 2 0 0 |
| " backing to masonry | " | 1 10 0 |
| " raising on old walls | " | 2 0 0 |
| " underpinning | " | 5 10 0½ |
| Fair Face and pointing internally | F.S. | 1½ |
| Extra over fletton brickwork for picked stock facings and pointing | " | 8 |
| " " " red brick facings and pointing | " | 11 |
| " " " blue brick facings and pointing | " | 1 4 |
| " " " glazed brick facings and pointing | " | 3 6 |
| Tuck pointing | " | 7½ |
| Weather pointing in cement | " | 3 |
| Slate dampcourse | " | 10 |
| Vertical dampcourse | " | 1 1 |

## ASPHALTER

| | | s. d. |
|---|---|---|
| ½" Horizontal dampcourse | Y.S. | 4 9 |
| ½" Vertical dampcourse | " | 7 9 |
| ½" paving or flat | " | 6 3 |
| 1" paving or flat | " | 7 6 |
| 1" × 6" skirting | F.R. | 1 0 |
| Angle fillet | " | 2½ |
| Rounded angle | " | 2½ |
| Cesspools | Each | 5 6 |

## MASON

| | | £ s. d. |
|---|---|---|
| Portland stone, including all labours hoisting, fixing and cleaning down, complete | F.C. | 17 9 |
| Bath stone and do., all as last | " | 13 6 |
| Artificial stone and do | " | 13 0 |
| York stone templates, fixed complete | " | 10 6 |
| " thresholds | " | 13 6 |
| " sills | " | 1 0 6 |

## SLATER AND TILER

| | | £ s. d. |
|---|---|---|
| Slating, Bangor or equal to a 3" lap, and fixing with compo nails, 20" × 10" | Sqr. | 3 10 0 |
| Do., 18" × 9" | " | 3 7 0 |
| Do., 24" × 12" | " | 3 17 0 |
| Westmorland slating, laid with diminished courses | " | 6 0 0 |
| Tiling, best hand-made sand-faced, laid to a 4" gauge, nailed every fourth course | " | 3 0 0 |
| Do., all as last, but of machine-made tiles | " | 2 16 0 |
| 20" × 10" medium Old Delabole slating, laid to a 3" lap (grey) | " | 2 16 0 |
| " " " " " " (green) | " | 4 15 0 |

## CARPENTER AND JOINER

| | | £ s. d. |
|---|---|---|
| Flat boarded centering to concrete floors, including all strutting | Sqr. | 2 2 6 |
| Shuttering to sides and soffits of beams | F.S. | 7 |
| " to stanchions | " | 7 |
| " to staircases | " | 1 6 |
| Fir and fixing in wall plates, lintols, etc. | F.C. | 3 9 |
| Fir framed in floors | " | 4 6 |
| " " roofs | " | 6 6 |
| " " trusses | " | 7 6 |
| " " partitions | " | 8 6 |
| ⅞" deal sawn boarding and fixing to joists | Sqr. | 1 14 6 |
| 1" " " " " | " | 1 17 6 |
| 1½" " " " " | " | 2 3 0 |
| 1" × 2" fir battening for Countess slating | " | 9 6 |
| Do., for 4" gauge tiling | " | 12 0 |
| Stout feather-edged tilting fillet | F.R. | 4½ |
| Patent inodorous felt, 1 ply | Y.S. | 2 3 |
| " " " 2 " | " | 2 9 |
| " " " 3 " | " | 3 3 |
| Stout herringbone strutting to 9" joists | F.R. | 10½ |
| 1" deal gutter boards and bearers | F.S. | 1 2 |
| 1½" " " " | " | 1 6 |
| 2" deal wrought rounded roll | F.R. | 8 |
| 1" deal grooved and tongued flooring, laid complete, including cleaning off | Sqr. | 2 1 0 |
| 1¼" do. | " | 2 10 0 |
| 1½" do. | " | 2 17 0 |
| 1" deal moulded skirting, fixed on, and including grounds plugged to wall | F.S. | 1 6 |
| 1¼" do. | " | 1 9 |

## CARPENTER AND JOINER—*continued*

| | | s. d. |
|---|---|---|
| 1½" deal moulded sashes of average size | F.S. | 1 9½ |
| 2" " " " | " | 1 11½ |
| 1½" deal cased frames double hung, of 6" × 3" oak sills, 1¼" pulley stiles, 1¼" heads, 1" inside and outside linings, ⅝" parting beads, and with brass faced axle pulleys, etc., fixed complete | | 3 7 |
| 2" " " " | " | 3 10 |
| Extra only for moulded horns | Each | 6 |
| 1½" deal four-panel square, both sides, door | F.S. | 2 0 |
| 2" " " " | " | 2 8 |
| 1½" " but moulded both sides | " | 2 4 |
| 2" " " " | " | 3 0 |
| 4" × 3" deal, rebated and moulded frames | F.R. | 1 0 |
| 4½" × 3½" " " " | " | 1 4 |
| 1½" deal tongued and moulded window board, on and including deal bearers | F.S. | 1 9 |
| 1½" deal treads, 1" risers in staircases, and tongued and grooved together on and including strong fir carriages | " | 2 6 |
| 1½" deal moulded wall strings | " | 2 1 |
| 1½" " outer strings | " | 2 4 |
| Ends of treads and risers housed to string | Each | 1 9 |
| 3" × 2" deal moulded handrail | F.R. | 1 3 |
| 1" × 1" deal balusters and housing each end | Each | 2 0 |
| 1½" × 1½" " " " | " | 2 9 |
| 3" × 3" deal wrought framed newels | F.R. | 1 3 |
| Extra only for newel caps | Each | 6 0 |
| Do., pendants | " | 6 0 |

## SMITH AND FOUNDER

| | | £ s. d. |
|---|---|---|
| Rolled steel joists, cut to length, and hoisting and fixing in position | Per cwt. | 16 6 |
| Riveted plate or compound girders, and hoisting and fixing in position | " | 1 0 6 |
| Do., stanchions with riveted caps and bases and do. | " | 19 0 |
| Mild steel bar reinforcement, ½" and up, bent and fixed complete | " | 17 6 |
| Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g. | F.S. | 11 |
| Wrot-iron caulked and cambered chimney bars | Per cwt. | 1 10 0 |

## PLUMBER

| | | £ s. d. |
|---|---|---|
| Milled lead and labour in flats | cwt. | 1 18 6 |
| Do. in flashings | " | 2 2 0 |
| Do. in covering to turrets | " | 2 7 6 |
| Do. in soakers | " | 1 13 3 |
| Labour to welted edge | F.R. | 3½ |
| Open copper nailing | " | 3 |
| Close " " | " | 4 |

| | | ½" s. d. | ¾" s. d. | 1" s. d. | 1½" s. d. | 2" s. d. | 4" s. d. |
|---|---|---|---|---|---|---|---|
| Lead service pipe and fixing with pipe hooks | F.R. | 10 | 1 0 | 1 3 | 2 0 | 2 10 | — |
| Do. soil pipe and fixing with cast lead tacks | " | — | — | — | — | — | 5 6 |
| Extra, only to bends | Each | — | — | — | — | 2 0 | 6 9 |
| Do. to stop ends | " | 6½ | 8 | 9 | 11 | 1 0 | — |
| Boiler screws and unions | " | 3 3 | 3 9 | 5 0 | 8 0 | — | — |
| Lead traps | " | — | — | — | 6 3 | 8 9 | — |
| Screw down bib valves | " | 6 9 | 9 6 | 11 0 | — | — | — |
| Do. stop cocks | " | 7 0 | 9 6 | 12 6 | — | — | — |

| | | £ s. d. |
|---|---|---|
| 4" cast-iron ½-rd. gutter and fixing | F.R. | 1 0 |
| Extra, only stop ends | Each | 1 0 |
| Do. angles | " | 1 6 |
| Do. outlets | " | 2 9 |
| 4" dia. cast-iron rain-water pipe and fixing with ears cast on | F.R. | 1 2 |
| Extra, only for shoes | Each | 1 3 |
| Do. for plain heads | " | 5 6 |

## PLASTERER AND TILING

| | | s d. |
|---|---|---|
| Expanded metal lathing, small mesh | Y.S. | 2 0 |
| Do. in n/w to beams, stanchions, etc. | " | 2 9 |
| Lathing with sawn laths to ceilings | " | 1 3 |
| ½" screeding in Portland cement and sand or tiling, wood block floor, etc. | " | 1 5 |
| Do. vertical | " | 1 7 |
| Rough render on walls | " | 1 2½ |
| Render, float and set in lime and hair | " | 1 9 |
| Render and set in Sirapite | " | 1 11 |
| Render, backing in cement and sand, and set in Keene's cement | " | 2 9 |
| Extra, only if on lathing | " | 4 |
| Keene's cement, angle and arris | F.R. | 6 |
| Arris | " | 1½ |
| Rounded angle, small | " | 3 |
| Plain cornices in plaster, including dubbing out, per 1" girth | " | 1½ |
| 1" granolithic pavings | Y.S. | 3 6 |
| 1½" " " " | " | 4 6 |
| 6" × 6" white glazed wall tiling and fixing on prepared screed | " | 17 6 |
| 9" × 3" " " " " | " | 1 2 6 |
| Extra, only for small quadrant angle | F.R. | 8 |

## GLAZIER

| | | s d. |
|---|---|---|
| 21 oz. sheet glass and glazing with putty | F.S. | 6½ |
| 26 oz. do. and do. | " | 7½ |
| Flemish, Arctic Figured (white) and glazing with putty | " | 1 1 |
| Cathedral glass and do. | " | 1 2 |
| Glazing only, British polished plate | " | 7 |
| Extra, only if in beds | " | 2 |
| Washleather | F.R. | 4 |

## PAINTER

| | | s. d. |
|---|---|---|
| Clearcolle and whiten ceilings | Y.S. | 6 |
| Do. and distemper walls | " | 9 |
| Do. with washable distemper | " | 1 1 |
| Knot, stop, prime and paint four coats of oil colour on plain surfaces | " | 3 3 |
| Do. on woodwork | " | 3 6 |
| Do. on steelwork | " | 3 0 |
| Do. and brush grain and twice varnish | " | 5 6 |
| Stain and twice varnish woodwork | " | 1 11 |
| Stain and wax-polish woodwork | " | 4 6 |
| French polishing | F.S. | 1 2 |
| Stripping off old paper | Piece | 2 0 |
| Hanging ordinary paper | from " | 2 9 |

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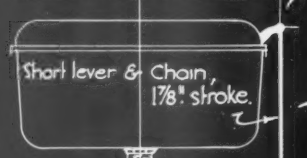
## TYPES OF FLUSHING ACTION FOR HIGH LEVEL CISTERNS:

Exposed cistern, method A.



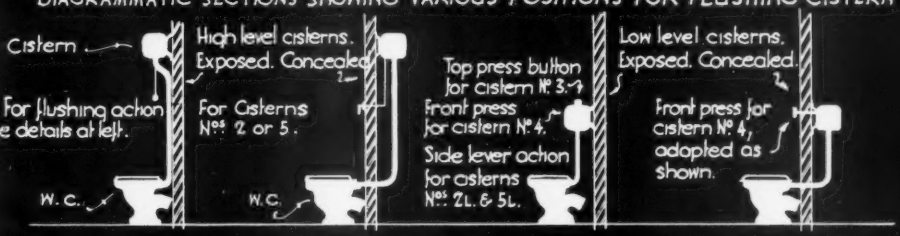

Exposed cistern, method B.

B. Chain through bottom of cistern, 1⅞" stroke.

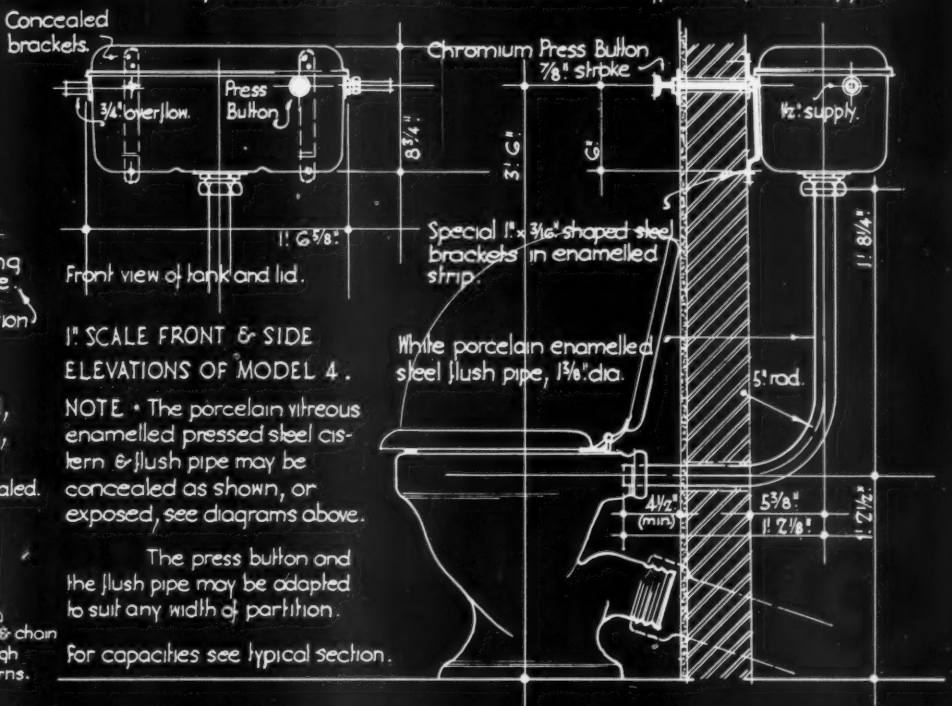
C. Flushing handle.

Concealed cistern, method C.: operated behind partition by means of back-levered handle.

## DIAGRAMMATIC SECTIONS SHOWING VARIOUS POSITIONS FOR FLUSHING CISTERN




SYPHONS • Cistern models Nos. 5 and 5L have syphons of galvanized solid-drawn high tensile steel. All other models have silent syphons of solid copper.




1" SCALE FRONT & SIDE ELEVATIONS OF MODEL 4.

NOTE • The porcelain vitreous enamelled pressed steel cistern & flush pipe may be concealed as shown, or exposed, see diagrams above.

The press button and the flush pipe may be adapted to suit any width of partition.

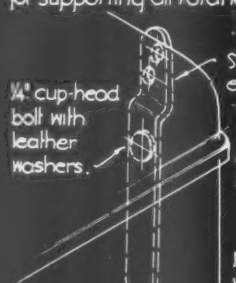
For capacities see typical section.

## KEY TYPE FLUSHING ACTION,

for adaption to any type cistern, (porcelain, fireclay, C.I., steel, etc.) at high or low level, exposed or concealed.

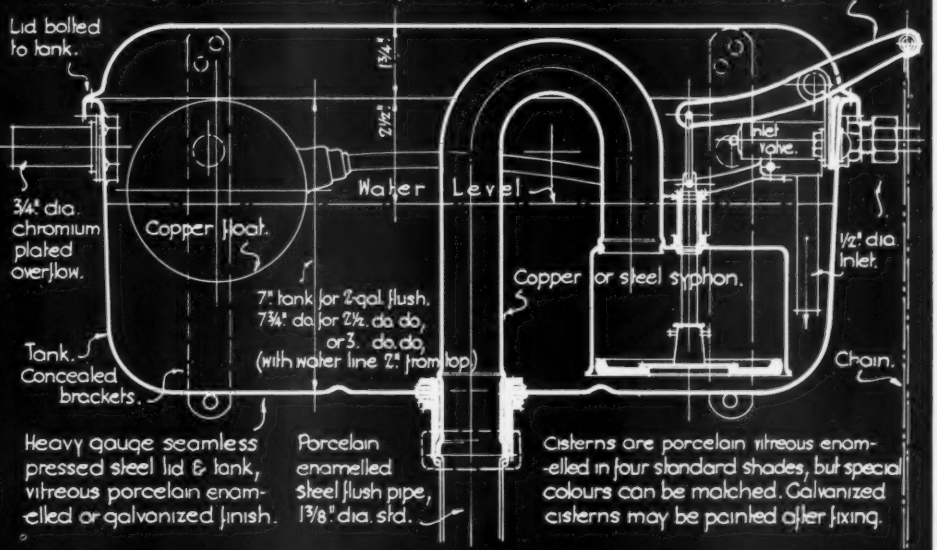

## SKETCH OF CONCEALED BRACKET,

for supporting all Fordham cisterns.




## ¼ F.S. LONGITUDINAL SECTION THROUGH TYPICAL FLUSHING CISTERN.

The high level, short stroke lever flushing action shown, is adaptable for low level types 2L & 5L.




## COMPONENT PARTS:

Fordham components may be obtained for fitting to cisterns constructed of other materials than steel, such as fireclay, porcelain, cast iron, etc.

Heavy gauge seamless pressed steel lid & tank, vitreous porcelain enamelled or galvonized finish.

Porcelain enamelled steel flush pipe, 1⅜" dia. std.

Cisterns are porcelain vitreous enamelled in four standard shades, but special colours can be matched. Galvanized cisterns may be painted after fixing.

*Information from Fordham Pressings Limited.*

INFORMATION SHEET • SEAMLESS PRESSED STEEL FLUSHING CISTERNS

SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1 • Alice A. Bayne.

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# INFORMATION SHEET
# • 313 •
# SANITARY FITTINGS

Product : Fordham Pressed Steel Flushing Cistern

**Types :**

Fordham seamless pressed steel flushing cisterns, which have been manufactured continuously since 1931, are made in the following types :

**A.—High level types :** Nos. 2 and 5, "Hush Flush." These models are similar in appearance and construction and differ only in the quality of the syphon. No. 2 cistern has a silent syphon of solid-drawn copper, whilst No. 5 has a silent syphon of galvanized high tensile steel.

Either model may be exposed as in normal practice or concealed behind a partition, the flushing actions being adaptable to suit, as shown. A third method of flushing for exposed cisterns consists of a chain operating through the bottom of the tank as shown. Weight of cistern empty, 19 lbs.

**B.—Low level types :** No. 3 for exposed position, contains an all-brass bell incorporating a float in its construction, and whilst water is in the cistern, the float is permanently in the "up" position. Flushing is performed by pressure on a small chromium-plated knob on the cistern top. Weight of cistern empty, 21 lbs.

Nos. 2L and 5L differ only by reason of internal fittings. No. 2L containing a silent syphon of solid-drawn copper and No. 5L a silent syphon of high tensile galvanized steel. Weight of cistern empty, 19 lbs.

Both models are flushed by means of a short side lever with a stroke of about one and a half inches, operable on exposed cistern positions only.

Model No. 4, known as the "Fordham Press Button Low Level," contains a silent syphon of solid-drawn copper and is operated by a small press button on the front of the tank, with a stroke of $\frac{7}{8}$ inches. The press button is adaptable for use through a partition of any thickness for concealed cisterns. Weight of cistern empty, 20 lbs.

**Standard Construction :**

All models consist of a heavy gauge seamless pressed steel tank and lid, vitreous porcelain enamelled at a high temperature to give a glossy finish. Syphons are of bent tube construction with expanded joints, and may be of copper, galvanized steel or vitreous enamelled steel. (Model 6.) The plungers of all models have a stroke of $1\frac{7}{8}$ in., that for copper syphons being of hot stamped brass with an 18 gauge hingeless brass baffle, and that for galvanized solid-drawn steel syphons being of hard metal alloy, with the chamber so designed that the plunger plate requires no baffle flap or valve.

**Standard Finish and Special Colours :**

The standard finish is porcelain enamel in white and three other colours, and special colours can be matched as required. The inlet, overflow and flush pipe connections are chromium plated. Galvanized models may be painted (after installation).

**Capacity :**

The overall depth of all cisterns is $8\frac{3}{4}$ in. with a 7 in. tank for a 2-gallon flush.

The tank depth may be increased to $7\frac{3}{4}$ in. for a $2\frac{1}{2}$ gallon or a 3 gallon flush, the water level in the latter case being 2 in. from the top of the tank. All types of Fordham cistern are approved by the Metropolitan Water Board and comply with the new bye-laws.

**Fixing :**

Standard fixing is by means of two shaped strip steel brackets, 1 in. by $\frac{3}{16}$ in. white porcelain enamelled and completely concealed. Brackets are bolted to the tank above the water level and countersunk-screwed to the wall.

**Component Parts :**

Fordham component parts may be obtained for fitting to cisterns constructed of other materials than steel—such as fireclay, porcelain, cast-iron, etc. A special "key action" adjustable operating gear for these cisterns is adaptable for high or low level positions, exposed or concealed behind a partition.

**Flush Pipes :**

White porcelain enamelled steel flush pipes can be supplied for all the Fordham models, and are made to suit all positions of cistern.

For Prices see table below.

Manufacturers : Fordham Pressings, Limited

Address : Melbourne Works, Dudley Road, Wolverhampton

Telephone : 20196 W'hampton

Prices :

| Model | Fittings | Finish | Capacity | Price |
|---|---|---|---|---|
| Hush Flush No. 5 | Concealed brackets | White porcelain Enamel | 2 gal. | 33/9 |
| ,, ,, | ,, ,, | Galvanized | ,, | 26/9 |
| Fordham No. 2 ... ... | ,, ,, | White porcelain Enamel | ,, | 43/6 |
| ,, No. 5L ... ... | ,, ,, and flush pipe | ,, | ,, | 49/9 |
| ,, No. 3 (low level) ... | ,, ,, ,, | ,, | ,, | 52/6 |
| ,, No. 4 (low level) ... | ,, ,, ,, | ,, | ,, | 55/6 |

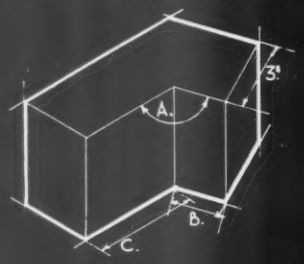
N.B. All the above models are obtainable in $2\frac{1}{2}$ or 3 gallon capacity at extra cost.

# THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

All specials are made in 8⅞" x 4⅝" x 2⅝" sizes, & where not otherwise shown conform to the R.I.B.A. Standard sizes.

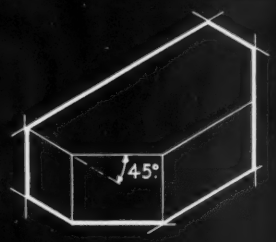
## SCHEDULE OF MOULDED BRICKS.

The numbers given below are the reference Nos of Midhurst Brick Co. Ltd.



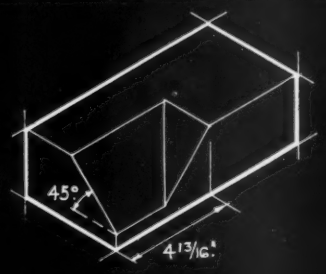

| Catalogue number. | A. | B. | C. |
|---|---|---|---|
| 280. . | 135° | 2¼" | 4½" |

ANGLE BRICK.



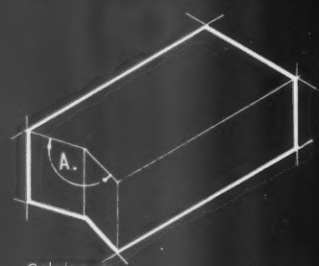

| Catalogue number. | SET BACK. |
|---|---|
| 360. . . | 2¼" . |

DOUBLE CANT.



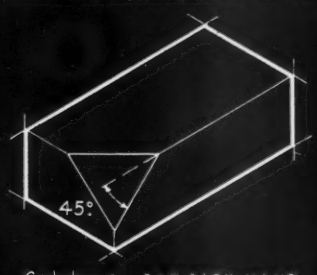

| Catalogue number. | SET BACK. | HAND. |
|---|---|---|
| 395. . . | 2¼" . | R.H. |
| 396. . . | 2¼" . | L.H. |

PLINTH INTERNAL RETURN.



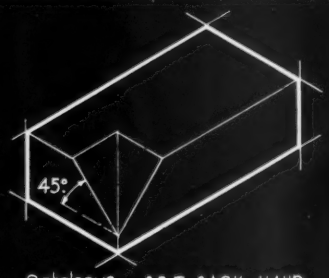

| Catalogue number. | A. |
|---|---|
| 290. . . . . | 130°. |
| 291. . . . . | 135°. |
| 292. . . . . | 165°. |

BIRDSMOUTH. .



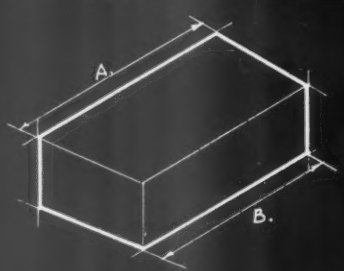

| Catalogue number. | SET BACK. | HAND. |
|---|---|---|
| 365. . . | 2¼" | R.H. |
| 366. . . | 2¼" | L.H. |
| 367. . . | 1½" | R.H. |
| 368. . . | 1½" | L.H. |

CANT STOP.



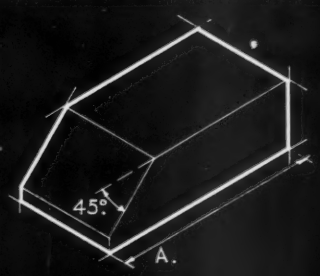

| Catalogue number. | SET BACK. | HAND |
|---|---|---|
| 400. . . . | 2¼" . | R.H. |
| 401. . . . | 2¼" . | L.H. |

PLINTH INTERNAL RETURN.



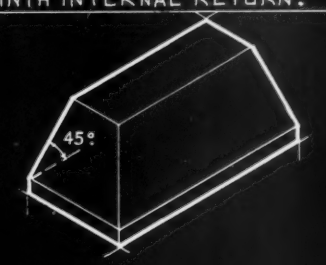

| Cat. No. | A. | B. | Cat. No. | A. | B. |
|---|---|---|---|---|---|
| 300. . | 8⅞". | 8½" | 303. . | 8⅞" . | 8¾" |
| 301. . | 9¼". | 8¾" | 304. . | 8⅞" . | 8⅝" |
| 302. . | 8⅞". | 7⅝" | 305. . | 10" . | 9" . |

HEADER SPLAY.



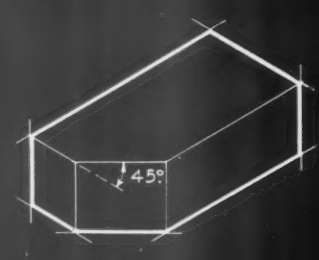

| Catalogue No. | SET BACK. | A. |
|---|---|---|
| 375. . . | 2¼" . | 8⅞" |
| 376. . . | 2" . | 8⅞" |
| 377. . . | 2¼" . | 6 9/16" |

PLINTH HEADER.



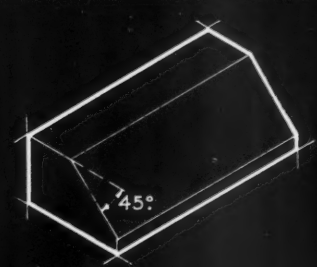

| Catalogue number. | SET BACK. | HAND. |
|---|---|---|
| 405. . . . | 2¼" | R.H. |
| 406. . . . | 2¼" | L.H. |

PLINTH EXTERNAL RETURN



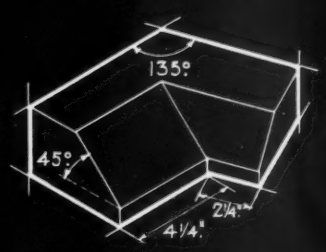

| Catalogue number. | SET BACK. |
|---|---|
| 350. . . | 2¼" . |
| 351. . . | 1½" . |

CANT BRICK.




| Catalogue number. | SET BACK. |
|---|---|
| 385. . . | 2¼" . |
| 386. . . | 2" . |

PLINTH STRETCHER.




| Catalogue number. | SET BACK. | HAND. |
|---|---|---|
| 415. . . | 2¼" . | R.H. |
| 416. . . | 2¼" . | L.H. |

PLINTH INTERNAL ANGLE

*Information from the Midhurst Brick Co. Ltd.*

INFORMATION SHEET · CALCIUM-SILICATE BRICKS · No 3 · MIDHURST WHITES.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1 · Oscar P. Bayman.

THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

# INFORMATION SHEET

# • 314 •

# CALCIUM SILICATE BRICKS

Type of Product : Midhurst Whites

This is the third of a series of Information Sheets setting out the standard sizes and shapes of the Midhurst White moulded bricks.

Standard Size :

Midhurst Whites are made to conform with the R.I.B.A. standard sizes and are $8\frac{7}{8}$ in. $\times 4\frac{5}{16}$ in. $\times 2\frac{5}{8}$ in.

Special Sizes :

The standard size of brick can be varied to give any required thickness, and the method of manufacture permits of the economical production of special sizes and shapes to specification.

Method of Manufacture :

See notes on Information Sheet No. 309.

Strength :

The notes and test results are given on Information Sheet No. 312.

Laying :

Midhurst White bricks may be built in cement or lime mortars. Slaked quicklime, hydrolised lime or an hydrated lime are recommended for use with the bricks for general work.

Porosity :

Tests carried out by Messrs. David Kirkaldy and Son have shown a porosity of only 9.31 per cent.

Chemical Reactions :

Sand lime bricks are almost completely indifferent to the attack of magnesium and calcium salts, sodium and potassium.

It has been found that sand-lime bricks subjected to the influence of sulphur dioxide or carbon dioxide increase in wet strength by approximately 25 per cent.

Previous Sheets :

Previous Sheets of this series are Nos. 306, 309 and 312.

Manufacturers : The Midhurst Brick Co., Ltd.

Address : Windsor House, Victoria Street, S.W.1

Telephone : Victoria 5551-2

Works : Midhurst and Cocking, Sussex

## Schedule of Moulded Bricks

| | | | Radius |
|---|---|---|---|
| 100 | Single Bullnose | | $1\frac{1}{8}$″ |
| 101 | | | $2\frac{1}{4}$″ |
| 105 | | | $2\frac{1}{2}$″ |
| 110 | Bullnose Stop Single | Left hand | $1\frac{1}{8}$″ |
| 111 | | Right hand | $1\frac{1}{8}$″ |
| 112 | | Left hand | $2\frac{1}{4}$″ |
| 113 | | Right hand | $2\frac{1}{4}$″ |
| 120 | Bullnose Header Single | | $1\frac{1}{8}$″ |
| 121 | | | $2\frac{1}{4}$″ |
| 125 | Bullnose Stretcher Single | | $1\frac{1}{8}$″ |
| 126 | | | $2\frac{1}{4}$″ |
| 130 | Double Bullnose | | $1\frac{1}{8}$″ |
| 131 | | | $2\frac{1}{4}$″ |
| 132 | | | $1\frac{1}{8}$″ |
| 135 | Double Bullnose Stop | | $1\frac{1}{8}$″ |
| 136 | | | $2\frac{1}{4}$″ |
| 140 | Bullnose on End (Cownose) | | $2\frac{1}{4}$″ |
| 145 | Cownose Stop | | $2\frac{1}{4}$″ |
| 150 | Double Headed Bullnose | | $1\frac{1}{8}$″ |
| 151 | | | $2\frac{1}{4}$″ |
| 155 | Double Stretcher Bullnose | | $1\frac{1}{8}$″ |
| 156 | | | $2\frac{1}{4}$″ |
| 160 | Bullnose Internal Return | Right hand | $1\frac{1}{8}$″ |
| 161 | on end | Left hand | $1\frac{1}{8}$″ |
| 162 | | Right hand | $2\frac{1}{4}$″ |
| 163 | | Left hand | $2\frac{1}{4}$″ |
| 170 | Bullnose Internal Return | Right hand | $1\frac{1}{8}$″ |
| 171 | on edge | Left hand | $1\frac{1}{8}$″ |
| 172 | | Right hand | $2\frac{1}{4}$″ |
| 173 | | Left hand | $2\frac{1}{4}$″ |
| 180 | Bullnose Internal Return | Left hand | $1\frac{1}{8}$″ |
| 181 | on flat | Right hand | $1\frac{1}{8}$″ |
| 182 | | Left hand | $2\frac{1}{4}$″ |
| 183 | | Right hand | $2\frac{1}{4}$″ |
| 190 | Bullnose External Return | Right hand | $1\frac{1}{8}$″ |
| 191 | on flat | Left hand | $1\frac{1}{8}$″ |
| 192 | | Right hand | $2\frac{1}{4}$″ |
| 193 | | Left hand | $2\frac{1}{4}$″ |
| 200 | Bullnose External Return | Left hand | $1\frac{1}{8}$″ |
| 201 | on edge | Right hand | $1\frac{1}{8}$″ |
| 202 | | Left hand | $2\frac{1}{4}$″ |
| 203 | | Right hand | $2\frac{1}{4}$″ |
| 210 | Stop end to Double Bullnose | | $1\frac{1}{8}$″ |
| 215 | Stop end to Standard Double Bullnose | | $2\frac{1}{4}$″ |
| 220 | Cill Brick | | $1\frac{1}{8}$″ |
| 225 | Bullnose Mitre | Left hand | $2\frac{1}{4}$″ |
| 226 | | Right hand | $2\frac{1}{4}$″ |
| 227 | | Left hand | $1\frac{1}{8}$″ |
| 228 | | Right hand | $1\frac{1}{8}$″ |
| 235 | Bullnose Mitre Block | | $2\frac{1}{4}$″ |
| 240 | Bullnose Mitre Block | Left hand | $2\frac{1}{4}$″ |
| 241 | on edge | Right hand | $2\frac{1}{4}$″ |
| 242 | | Left hand | $1\frac{1}{8}$″ |
| 243 | | Right hand | $1\frac{1}{8}$″ |
| 250 | Pistol Brick (Circular Corner) | | |

| | | | Angle |
|---|---|---|---|
| 260 | Squint Brick | | 30° |
| 261 | | | 45° |
| 262 | | | 45° |
| 263 | | | 60° |
| 264 | | | 60° |
| 265 | | | 70° |
| 270 | Angle Brick | | 113° |
| 271 | | | 113° |
| 272 | | | 135° |
| 273 | | | 135° |
| 274 | | | 153° |
| 275 | | | 153° |

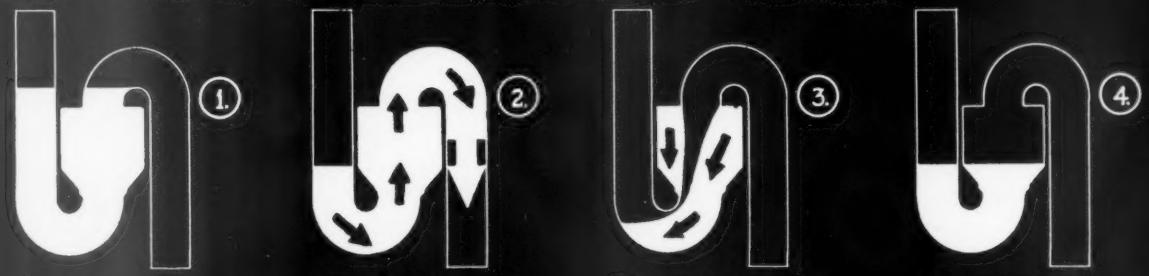
| | | | Angle |
|---|---|---|---|
| 280 | Angle Brick | | 135° |
| 290 | Birdsmouth | | 130° |
| 291 | | | 135° |
| 292 | | | 165° |
| 300 | Header Splay | | $8\frac{7}{8}$″-$8\frac{1}{2}$″ |
| 301 | | | $9\frac{1}{4}$″-$8\frac{3}{4}$″ |
| 302 | | | $8\frac{7}{8}$″-$7\frac{5}{8}$″ |
| 303 | | | $8\frac{7}{8}$″-$8\frac{1}{4}$″ |
| 304 | | | $8\frac{7}{8}$″-$8\frac{5}{8}$″ |
| 305 | | | 10″-9″ |
| 350 | Cant Brick | | |
| 360 | Double Cant | | |
| 365 | Cant Stop | Right hand | |
| 366 | | Left hand | |
| 367 | | Right hand | |
| 368 | | Left hand | |
| 375 | Plinth Header | | |
| 385 | Plinth Stretcher | | |
| 395 | Plinth Internal Return | Right hand | |
| 396 | | Left hand | |
| 400 | Plinth Internal Return | Right hand | |
| 401 | | Left hand | |
| 405 | Plinth External Return | Right hand | |
| 406 | | Left hand | |
| 415 | Plinth Internal Angle | Right hand | |
| 416 | | Left hand | |
| 425 | Plinth External Angle | Right hand | |
| 426 | | Left hand | |
| 435 | Cant Mitre Block | | |
| 440 | Cill Brick | | |
| 450 | Culvert Header | | 3″-2″ |
| 451 | | | 3″-$2\frac{1}{4}$″ |
| 452 | | | 3″-$2\frac{1}{2}$″ |
| 453 | | | 3″-$2\frac{3}{4}$″ |
| 460 | Culvert Stretcher | | 3″-2″ |
| 461 | | | 3″-$2\frac{1}{4}$″ |
| 462 | | | 3″-$2\frac{1}{2}$″ |
| 463 | | | 3″-$2\frac{3}{4}$″ |
| 465 | | | $2\frac{1}{4}$″-$2\frac{1}{4}$″ |
| 466 | | | $2\frac{3}{4}$″-$2\frac{1}{2}$″ |

| | | Radius |
|---|---|---|
| 480 | Concave Header | 4′ 9″ |
| 481 | | 3′ 9″ |
| 490 | Concave Stretcher | 5′ 2″ |

| | | Diameter |
|---|---|---|
| 500 | Chimney (or Well Header) | 4′ 0″ |
| 501 | | 6′ 0″ |
| 502 | | 8′ 0″ |
| 503 | | 11′ 0″ |
| 504 | | 13′ 0″ |
| 505 | | 16′ 0″ |
| 510 | Chimney (or Well Stretcher) | 4′ 0″ |
| 511 | | 6′ 0″ |
| 512 | | 8′ 0″ |
| 513 | | 11′ 0″ |
| 514 | | 13′ 0″ |
| 515 | | 16′ 0″ |
| 520 | Convex Header | 4′ 9″ |
| 530 | Convex Stretcher | 4′ 9″ |
| 550 | Coping Brick | |
| 560 | Arch Brick | |
| 600 | Special Purpose Bricks | |
| 650 | Air Brick | |
| 700 | Key Brick | |

# THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

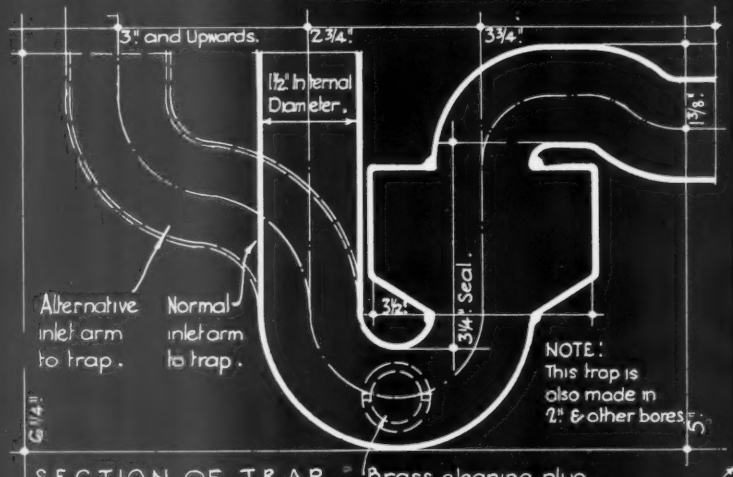
## DIAGRAMS SHOWING THE RESEALING ACTION OF THE TRAP:

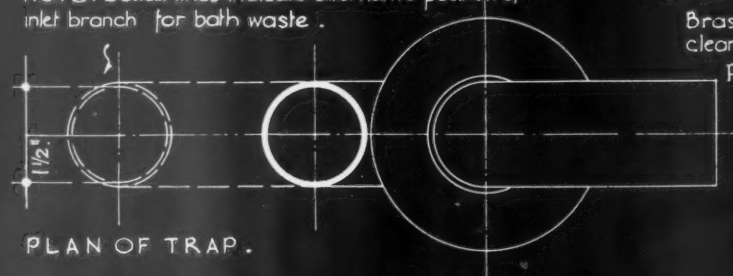



1. The trap under normal conditions giving a seal of 4¾".
2. In an attempt to unseal the trap the partial vacuum causes movement.
3. The water is drawn down to the top of the curvature of the inlet leg.
4. After syphonage a full seal of 1½" to 1¾" is maintained.

During syphonic action the formation of eddies creates an agitation in the trap making it self-cleansing.

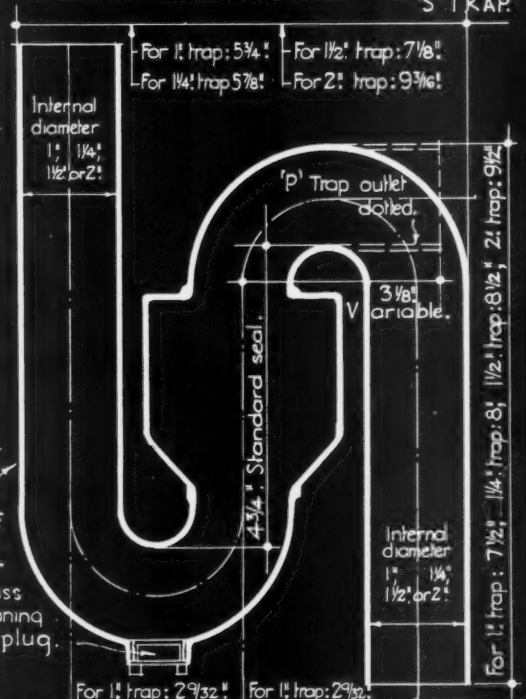
## DETAIL OF Mc ALPINE PATENT RESEALING BATH TRAP.

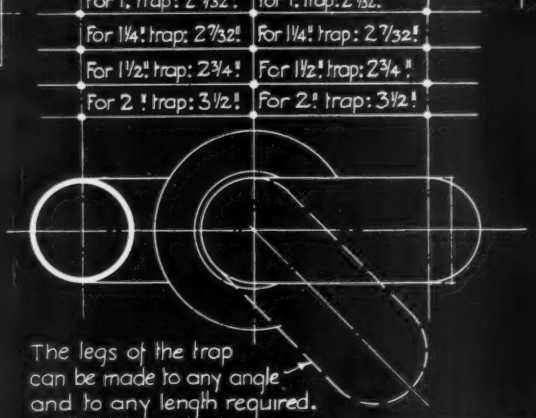



NOTE: Both surfaces of the trap are smooth due to the Hydraulic Lead construction and so there is no interference with the full flushing of the trap. Under the strongest syphonic action a perfect seal is retained, so all anti-syphonage pipes may be eliminated.

## DETAIL OF Mc ALPINE PATENT RESEALING 'S' TRAP.




*Information from* *Mc Alpine & Co. Ltd.*

INFORMATION SHEET: DRAWN LEAD RESEALING TRAPS:
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1 • Wm. A. Bayne.

THE ARCHITECTS' JOURNAL
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# INFORMATION SHEET

## • 315 •

# PLUMBING

Product : McAlpine Patent Drawn Lead Resealing Traps (Patent No. 407420)

This resealing trap is designed to resist any tendency of all the water seal being drawn out when a partial vacuum is formed in the plumbing system owing to the discharge of water from adjoining fittings.

If the water seal in an ordinary trap is drawn out by such action, then a clear way is left for the emission of foul gases from the plumbing system into the room in which the trap and fitting are situated. To prevent this occurring, ordinary traps are usually fitted with anti-syphonage vents which are intended to prevent the formation of the partial vacuum which draws the seal of the trap.

These vents are required in nearly all plumbing work when ordinary traps are used, and they are essential if ordinary traps are used with the One-pipe system of plumbing.

The use of patent resealing traps, however, renders the use of vents to traps unnecessary in practically all cases, provided that the vertical and branch waste pipes are properly graded to take the volume of water which is capable of being discharged from the fittings to which the traps are attached.

The Trap :

Resealing traps are made of hydraulic-drawn lead, ensuring a perfectly smooth and even interior bore with no irregularities to interfere with the clean flushing of the trap.

The Water Chamber :

A water chamber is formed, as shown in the trap—shaped at the top and bottom to assist the resealing action and to ensure self-cleaning of the trap.

The Legs of the Trap :

The legs of all traps are made in certain standard diameters and lengths as shown, but traps are obtainable to order with legs of any length required.

Direction of Outlet :

Traps of all types may be obtained with the outlet leg in any specified direction, but the direction of the outlet is not adjustable once the trap is made.

Cleaning Plug :

Brass cleaning plugs are fitted—as shown—to the bottom of S. and P. traps, and on the side of bath traps ; but they may be fitted in any position if required.

The Water Seal :

The trap under normal conditions provides a seal of $4\frac{3}{4}$", it is therefore a deep seal trap. If subjected to a drawing action sufficient to bring the resealing action into play, then the water seal retained after such action has taken place is $1\frac{1}{2}$" to $1\frac{3}{4}$".

The Resealing Action :

If an attempt is made by syphonic action to unseal the trap, the water is drawn down in trap to the level shown in the third diagram. The air then breaks through to the waste pipe. The rush of air *into* the plumbing system continues until the partial vacuum is destroyed, the water drawn up into the water chamber then falls back into the trap reforming a full water seal of $1\frac{1}{2}$" to $1\frac{3}{4}$".

It should be noted that at no stage of the action is it possible for foul air to pass *out* of the plumbing system through the trap.

Self-Cleansing Action :

During normal use, the trap is self-cleansing in its action owing to the shape and to the smooth bore of the hydraulic-drawn lead. During the resealing action, strong eddies are set up in the water chamber which give extra cleansing power to the water movement.

Tests :

Summary of the Report on tests carried out by the Building Research Station in December, 1935 :—

" Tests were carried out on a Patent Resealing Trap to determine the efficacy of the trap.

" The conditions under which the trap was tested were more severe than those which would prevail in any normal plumbing system.

" The tests showed that an effective seal remained in the trap under all conditions imposed by the test.

" The trap is very simple in shape and it is believed that the efficiency of the resealing device is not likely to be impaired by unduly rapid accumulation of grease or other deposits. This aspect, however, has not been dealt with in the tests actually performed."

Complete copies of the Building Research Station Test can be had on application to the manufacturers.

Resealing Bath Trap :

To enable the principle of the Patent Resealing trap to be utilised for bath wastes, a special design has been produced as shown, the overall measurements being such that the trap is suitable for general use.

This trap has been also subjected to tests similar to those outlined above.

Local Authorities :

The trap conforms to the requirements of the London County Council, and is also approved by various other Local Authorities for use in plumbing work and for use with the One-pipe system of plumbing.

Types, Sizes and Prices :

| | | |
|---|---|---|
| 1" diam. (25mm.) 6 lbs. | S. Trap : 4/9 | P. Trap : 4/2 |
| 1" diam. (25mm.) 7 lbs. | S. Trap : 5/2 | P. Trap : 4/8 |
| $1\frac{1}{4}$" diam. (31mm.) 6 lbs. | S. Trap : 5/5 | P. Trap : 4/10 |
| $1\frac{1}{4}$" diam. (31mm.) 7 lbs. | S. Trap : 6/2 | P. Trap : 5/4 |
| $1\frac{1}{2}$" diam. (38mm.) 6 lbs. | S. Trap : 6/2 | P. Trap : 5/4 |
| $1\frac{1}{2}$" diam. (38mm.) 7 lbs. | S. Trap : 6/11 | P. Trap : 5/11 |
| 2" diam. (51mm.) 6 lbs. | S. Trap : 9/- | P. Trap : 7/9 |
| 2" diam. (51mm.) 7 lbs. | S. Trap : 10/1 | P. Trap : 8/8 |

Resealing Bath Trap :

$1\frac{1}{4}$", $1\frac{1}{2}$" and 2" diam. 6 and 7 lbs.
Prices as for P traps.

These prices include the brass cleaning plug.

Finish :

The traps can be supplied chromium-plated at an extra cost of 6s. for $1\frac{1}{4}$" and $1\frac{1}{2}$" sizes, and 7s. 6d. for the 2" size. The prices include fitting and plating the necessary unions, but not for supplying them.


Manufacturers : McAlpine & Co., Ltd.
Address, Works : Thistle Works, Dunsmuir St., Govan, Glasgow, S.W.1
Telephone : Govan 66
Telegrams : " Offset, Phone, Glasgow "
Codes : ABC 5th and 6th Editions
Address : 39, Cheapside, London, E.C.2
Telephone : City 3085, 5569