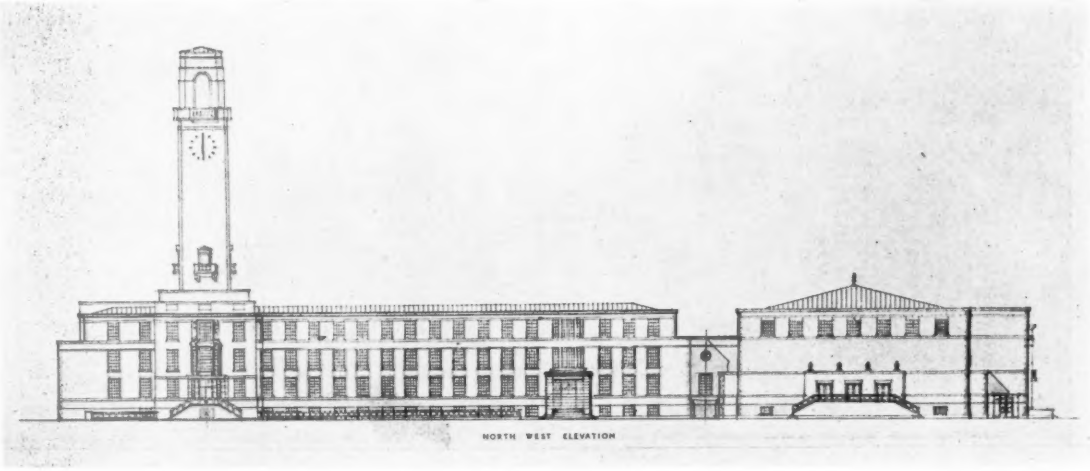
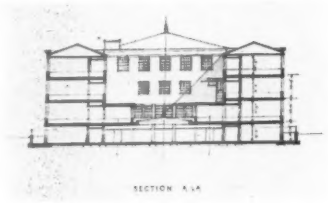
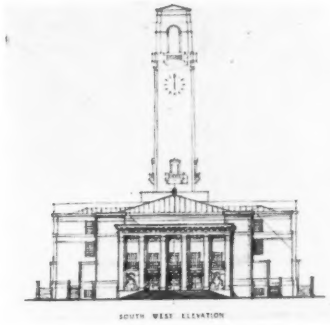
THE BARKING COMPETITION

DESIGN PLACED FIRST







BY HERBERT JACKSON AND REGINALD EDMONDS

ELEVATIONS and section of the winning design in the competition for a new town hall and municipal buildings, Barking. The full award of the assessor is given on page 589, and the plans of the winning and other premiated designs are reproduced on pages 589-592.

C O L O G N E

A photograph taken from the spire of Cologne Cathedral at one of the highest points available to visitors on one of the five hundred foot high towers. The cathedral was begun at the end of the thirteenth century and finally completed in 1880.

MORE UNDEFINED LEGISLATION

ON January 1, 1937, there will come into force in the London district the Ministry of Health's Order No. 1089 (1936). By this Order, and from that date, the L.C.C. will have its powers increased under the Restriction of Ribbon Development Act, 1935, in the following ways.

Anyone proposing to build, or to rebuild, a building in excess of quarter of a million feet cube capacity, or any building which falls into the category of " a place of public resort," must convince the L.C.C. that the building in question will not cause an increase in traffic in adjoining streets, or that satisfactory arrangements will be made to limit such interference with the traffic in adjoining streets as might be made by cars taking up or setting down passengers at entrances to the building.

It has been attempted to set out the meaning of the new powers as simply as possible, but even if this has been done without any of the distortion which may arise from over-simplification, architects will have realized clearly only one point in an exquisitely complex problem. They will realize without any difficulty at all that the net of rules and regulations which yearly confines the scope of architectural practice within narrower limits, has been both strengthened and drawn tighter. By how much it has been strengthened, by how much architectural practice will be made more arduous, will presumably only be learnt during years of application, rejection, discussion and waiver under the powers of the new Order.

A thoughtful reading of the Order encourages the belief that its vigorous application will eventually cause something approaching a complete transformation of the central areas of London and other large cities. And that, in the meantime, it may affect architectural practice very acutely. But more immediate impressions are also worth notice.

The Order is taken under the Restriction of Ribbon Development Act, 1935, and this fact has, to the architect, almost a humorous aspect.

For years before that Act was passed, architects had been pleading for some control of the strung-out building which was both ruining present roads and jeopardizing the chances of any properly conceived suburban development being brought about in the future. As a result of their efforts, and those of the more sensitive section of the public, the Act was finally passed—an Act which, whilst being a pleasant political gesture, provided enough loopholes to make itself quite ineffective in any but the richest and most progressive areas.

In considering the probable results of the present Order, there can be no doubt that the increase in motor traffic has made it very necessary that the obstruction caused by cars waiting outside all types of building should be carefully studied, and the best remedies agreed upon. But one would imagine that these possible remedies, and the evidence and opinion upon which they were based, would be made known to the public before the announcement that they were to be put into force. As things now are, there is reason for a suspicion that neither the Ministry of Health nor the L.C.C. have any clear idea of what provisions they contemplate—save perhaps big buildings being in future provided with forecourts.

One has only to imagine six buildings of " public resort " adjoining one another and fronting on a busy street—a by no means impossible contingency—to have an idea of the confusion among pedestrian and other traffic arising from each building being equipped with a forecourt.

The intention of the Order may be only, at present, to enable the L.C.C. to demand that building owners should show reasonable consideration for adjoining traffic in all suburban building schemes, and in such large flat or other buildings in the central districts as may be fairly and economically provided with traffic entrances. But the public has no means of knowing this, and the architect who takes his clients' interests seriously may find himself from next January with four additional authorities added to the list of those with whom he must discuss the details of a proposed building.

The JOURNAL has always believed that some measure of public control was essential to the achievement of good building development. It feels, however, that such control should be imposed and exercised in reasonable sequence. If a problem or an abuse of public interest exists, it would appear logical that an expert enquiry should be held and the remedies suggested clearly announced for criticism by interested persons; and that only after the best remedies had been agreed, and their exact nature explained, should powers be given to any authority to put them into force.

The last few years, however, particularly in matters concerning town-planning, has seen an amount of legislation which apparently considers it better to impose upon jaded local authorities a spate of " powers " to do this and that, and to leave to them the problems of setting up the necessary mechanism and the even more vital question of deciding how it is best to be done. The result of such methods is that today not only questions of structure, but even of the planning and external appearance of buildings are being decided for architects by officials compelled to rely on rule-of-thumb, and frequently out-dated, regulations.

Before Order No. 1089 begins to introduce its complications into architectural practice, we suggest that it would be as well if architects, through the R.I.B.A., asked the Ministry of Health for an exact description of the remedies for traffic interference which it is now asking the L.C.C. to put into effect.

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

NOTES & TOPICS

THE SISTER SHIP

THE R.I.B.A. building, the decoration of London's streets — and now the *Queen Mary's* sister: Mr. Wornum's cap is positively bristling with feathers.

*

But I still find some cause to reproach the Cunard. The *Times* announcement says that Mr. Wornum is "decoration architect for the passenger accommodation." Now the virtues of the R.I.B.A. building lie far more in its plan than in its decoration; the building *works*, both for everyday use and for public receptions and feasting generally.

*

Are 552's public rooms *all* to be planned by engineers and "decorated" by an architect? Cannot Mr. Wornum be given a chance to do some planning—the same sort of chance that was given to Mr. O'Rorke by the Orient, or by the C.G.T. to some of the architects for the *Normandie*? The "decoration" of the *Normandie* is a disaster; but the plan, whatever its faults, does at least give an impression of size and space.

INNER GREEN RING

The winter season made a good start at the Architectural Association on Tuesday with the President's address.

*

Mr. L. H. Bucknell spoke on "Individualism," the value of which he considered was now too much stressed. The difficulties created in architecture by blind individualism are bad enough, but in town planning all progress can be held up by misguided deference to small private interests.

*

Quite the high spot of Mr. Bucknell's address was the revelation that an inner green ring is not only possible for London, but still quite practicable, if individuals will co-operate.

*

It was revealed that if one walks east from Regent's Park, through Islington, then circles south and crosses the river to Bermondsey, continues west to Battersea and eventually returns to Regent's Park by way of Fulham and Paddington —then one has circled through small dwelling houses occupied by people hovering around the Charles Booth poverty line.

*

And there's more to it than that. All this ring of property is "slum." It will all, in the ordinary course of haphazard development, be pulled down and rebuilt well within 50 years. Some of it has already vanished to make room for re-housing flats.

*

If, as Mr. Bucknell pointed out, the various boroughs and landowners combine in one comprehensive scheme for this rebuilding, we can very simply indeed have a green ring inside London, punctuated with suitably spaced housing development and linking quite naturally with radial outlets in Hampstead Heath, Hackney Marsh, Barnes Common, etc. The idea is almost staggering in its simplicity and practicability.

STREETS FORWARD—

With pleas, apparently very successful, for the polishing up of buildings before next year; with the Bond Street competition award last week; and with the *Daily Telegraph* running a correspondence about the ugliness (or alternatively the charming English haphazardry) of the Strand —the public is being asked to look at streets in a way that is not likely to occur again for a long time.

*

It is outrageously optimistic to look forward to any lasting improvement coming from the present scrutiny, but it is still pleasant to see obviously intelligent citizens pointing out to each other some of the more prominent horrors which they have lived amongst for forty years or so.

*

It is being found that the signs, fascias and fronts of adjoining buildings are so inharmonious that the first necessity of any decorative scheme is to obliterate them pretty completely—a solemn thought here. Then someone has noticed that the differing lamps, posts, beacons, alarms, signals, transport signs, traffic signs, and refuges inflicted on streets at the sweet will of a hundred authorities stand rather in the way of dignified rejoicing. That they also prevent any decency of appearance in city streets in normal times is not so much emphasized.

*

We must be thankful that there is now at least a determination to alter some of these things for a week or two. And Sir Giles Gilbert Scott, Mr. G. Grey Wornum, and

Members of the Westminster City Council inspecting models of the decorations for the Coronation route.

From the exhibition of inn signs to be opened at the Building Centre on November 2: Painted signs at the "Wagon and Horses," Ridge Hill, by Eric Newton.

H.M.O.W. chief architect, Sir James G. West, have been asked to see to it that London does its best.

AMERICA LEADS

The only setbacks so far are that the windows of the Ministry of Health block have been painted a loathsome varnished brown colour (why not white, as further up Whitehall; or is this a Departmental Difference?)—and that Sir Charles Allom has stated that English architecture is far behind American.

*

Why? Because Americans make regular visits to Europe to study the work of the past (often taking a course at the Ecole des Beaux Arts); and because perspectives are not admitted in open competitions here (our architects never think of their designs in perspective).

*

Behind—yes. But behind America? Oh! Sir Charles. . .

BRIGHTER SCOTTISH OUTLOOK

If the editors of reviews today ever think wistfully of the times when the whole polite world was at the mercy of their contributors, there must be a special kind of pang reserved for Edinburgh editors—a special lowland lament for the day when a single column dispatched across the Tweed could blast a mere English reputation.

*

I was thinking of all this in Edinburgh earlier in the month when, not for the first time, I saw some copies of the Scottish review called *Outlook*.

*

Outlook believes that there are still people in Scotland who are prepared to pay a shilling a month for a sensible commentary on events, and so far its belief has been well supported.

*

But the really important thing is that this review contains fairly regularly articles on architecture—and not on the historical or specially esoteric aspects of architecture; just on shops and houses and the new horrors of Union Street, Aberdeen. (One can almost hear the owners of English reviews and monthlies murmuring: Suicide—suicide!)

*

Outlook apparently feels that contemporary Scottish architecture will not reach a high standard until the ordinary intelligent citizen takes a shrewd interest in it.

*

We must hope for the day when English reviews will feel the same thing.

CAMBRIDGE SIGHT-SEEING

I suppose as long as building continues there will be a great schism over urban architecture.

*

There will be the "Whole is Greater than the Part" school, with which is bracketed: belief in minor variations on a general restful and unified theme; paying tributes to predecessors and neighbours; preservation of local building traditions; and finally, fake antiquity of any school.

*

And there will be the "One Good Thing Can Stand Another" feeling—which carries with it British individualism and the policy of shouting the loudest.

*

A round of Cambridge today seems to show that individualism has more often been chosen there. And if it has the very worst buildings to its reckoning, it has also a far greater number of real successes. (How, for instance, would "faithfully preserves the spirit of local building" justify putting Gibbs' Fellows' Building next to King's Chapel? Yet there is no struggle between them.)

*

And Cambridge buildings, in all the important parts, have always one virtue—their owners have always *tried* hard to do something worth doing. And so contrary is human nature that one sometimes wishes they had not.

*

As for the buildings which caused all these thoughts, there is a good clean and bright one in the market-place with shops beneath an arcade (post and beam arcade). Sensible and an asset. Then the French Gothic of Caius (or Gonville) has had a steam shampoo. Result—worse than ever.

*

Not so new is Lutyens' block for Magdalene; wonderful chimneys. Not my favourite Lutyens, but stair newels cut out of about 12 by 12 oak should not be missed. Then Harold Tomlinson's delicate job of putting new internals into the Union is not only good but is staying good, and any first misgivings about the future are now withdrawn.

*

Finally, after another glance at the Library (I'm not yet sure about that) I came to Queens' new building. The architect here must have had terrible qualms—for his building shares with Rickman's New Court for John's the distinction of being across the river, and so is right in the public eye. Perhaps because of these things it appears to have considered the claims of both my schools of criticism. Of its success—well, I shall try to see it again for a more considered judgment in six months' time. ASTRAGAL

NEWS

POINTS FROM THIS ISSUE

"*It would be as well if architects . . . asked the Ministry of Health for an exact description of the remedies for traffic interference which it is now asking the L.C.C. to put into effect*" 585

"*A series of unrelated façades, even though they may be good individually, are æsthetically chaotic*" 588

The Barking Competition Result .. 589

"*Forty million tons of raw coal are burned annually in our domestic grates*" 610

ENTRANCES TO BUILDINGS

The Minister of Health's order No. 1089 (1936), dated October 12, seems to have resulted in a certain amount of misunderstanding and misstatement in the general Press.

The first mention of it stated, even in papers priding themselves upon their accuracy, that it was an order of the Ministry of Transport, which is not the case; the order is made under section 20 (3) of the Restriction of Ribbon Development Act, 1935, and its powers are to be exercised by the L.C.C. in consultation with metropolitan borough councils and with the City's Common Council. The section in the Act defining the L.C.C.'s powers is section 17.

It was also announced originally that the powers would be in force from November 1, 1936. In fact, the order will come into operation on January 1 next year.

A summary of the new duties conferred on the L.C.C. by this order is as follows :—

Under the order a person proposing to erect a new building of a cubic capacity exceeding 250,000 ft., or any building being a place of "public resort," is required to submit plans of the building to the County Council who, unless they are satisfied that either—

(*a*) the character of the new building is such as not to be likely to cause increased vehicular traffic along any road adjacent to the building, or

(*b*) satisfactory arrangements have been or will be made to limit interference with traffic along any adjacent road,

may after consultation with the highway authority, the police and the Ministry of Transport require the provision and maintenance of such means of entrance and egress and of such accommodation for the loading and unloading of vehicles or picking up or setting down of passengers or the fuelling of vehicles as may be specified by them for the purpose of limiting interference with traffic.

A "new building" is defined as including the re-erection of an existing building.

It would possibly be much appreciated by the public, and particularly by building owners and architects, if the Ministry of Health or the L.C.C. would make some announcement of exactly what facilities of entrance and egress for traffic they will expect to be provided in new building schemes.

THE ARCHITECTS' DIARY

Thursday, October 29

THE ARTISTS' INTERNATIONAL ASSOCIATION. *At 46 Frith Street, Soho, W.C.1. Exhibition of drawings. By Felicia Brown.* 11 *a.m. to* 9 *p.m. Last Day.*

ASSOCIATION OF ARCHITECTS, SURVEYORS AND TECHNICAL ASSISTANTS. *At Caxton Hall, Westminster, S.W.1. Discussion on "The Work of the Salaried Architect," to be opened by E. Maxwell Fry.* 7 *p.m. (Public Meeting, admission free.)*

ARCHITECTURAL ASSOCIATION. 36 *Bedford Square, W.C.1. Annual Exhibition of water-colours, etchings and drawings executed by members. Until November* 6.

GEFFRY MUSEUM. *Kingsland Road, Shoreditch, E.1. "Furniture : Function and Equipment of the Medieval House." By H. Clifford Smith.* 7.30 *p.m.*

SOCIETY OF ANTIQUARIES. *Burlington House, Piccadilly, W.1. "Sculpture in Visigothic France." By J. B. Ward Perkins.* 8.30 *p.m.*

HOUSING CENTRE, 13 *Suffolk Street, S.W.1. Exhibition : "Forbidden Houses." Arranged by the Ex-Servicemen's Group of the Hundred New Towns Association. Until November* 21.

Saturday, October 31

C.P.R.E. *At the Borough Hall, Stafford. County Meeting to consider the formation of a Staffordshire Branch of C.P.R.E.*

Monday, November 2

R.I.B.A., 66 *Portland Place, W.1. President's Inaugural Address : and presentation of the London Architecture Bronze Medal, 1935, to R. H. Uren.* 8.30 *p.m.*

BUILDING CENTRE, 158 NEW BOND STREET, W.1. *Exhibition of Inn Signs, to be opened by Sir William Llewellyn, at* 12 *noon. Until November* 28. 10 *a.m. to* 6 *p.m. (Saturdays,* 1 *p.m.)*

Wednesday, November 4

ROYAL SOCIETY OF ARTS, *John Street, Adelphi, W.C.2. "180 Years of Pioneer Work by the Royal Society of Arts." By Col. Sir Henry McMahon.* 8.30 *p.m.*

LIVERPOOL'S VAST SCHOOL PLAN

Liverpool is faced with a large expenditure on new schools. Over sixty of the older buildings have been inspected and it is expected that the Ministry of Education will shortly recommend the demolition of several.

Eight new schools are now being built and it is estimated that a dozen more are needed. Space for six has been left on the plans for a new satellite town at Speke.

STREET ARCHITECTURE

Street architecture was discussed by Lt.-Col. George Westcott, O.B.E., F.R.I.B.A., in his presidential address to the Liverpool Architectural Society on October 28. The address was presented by Mr. W. Johnson in the absence, through illness, of Lt.-Col. Westcott. Extracts from the address are given below :—

"Dignity is a quality which at least the main streets of a city should possess. There is no dignity in the façades of most streets because there is no harmonious transition from one building to another—no uniformity of character, materials or levels. A series of unrelated façades, even though they may be good individually, are æsthetically chaotic. It is particularly important that there should be uniformity in the levels of shop-fronts. Most shopping streets present a ragged line of shop-front fascias which contribute very largely to the general untidiness of street façades. Here, I think, there is opportunity for co-operation. The difficulties are not unsurmountable providing there is willingness to co-operate. If we can have groups of relative shop-front façades, the streets would gain tremendously."

EXHIBITION

Criticism of the prohibition of more than twelve houses being built to the acre was made by Sir Reginald Rowe at the opening of the exhibition of "Forbidden Houses" at the Housing Centre last week. That limit, he said, meant that we got the whole country peppered with little boxes. He had a great respect for a garden city like Letchworth, but the trouble was that it tended to build out and farther out till you were half an hour away from the railway station, and that was not good for the poor people. In poor town districts one found lots of little streets that were hardly used as streets at all. In the "forbidden houses" plan you built in streets, but had as much playground, air, and facilities as anywhere—much more than you got with blocks of houses. Towns like those suggested could be surrounded with land of agricultural value. It should be practicable to supply communal services such as a hot-water supply.

CITY ARCHITECT FOR BELFAST

A proposal to appoint a city architect for Belfast and to have a special department under his control at the City Hall was discussed recently by a sub-committee of the Corporation General Purposes Committee.

It was agreed that before further consideration is given to the matter, inquiries should be made as to cities and towns in Great Britain which have full-time architects and departments.

R.I.B.A. DRAMATIC SOCIETY

Rehearsals have now commenced for the Society's Autumn production on Thursday, Friday and Saturday, November 26, 27 and 28, in the Meeting Room at the R.I.B.A.

As a contrast to the previous productions, mainly by English dramatists, the Society has chosen a translation from the Hungarian by Benjamin F. Glazer, of Francis Molnar's "Liliom," which has not been professionally performed in this country.

The secretary would be pleased to hear from anyone wishing to join the society, as there are still several parts uncast for this production.

BUILDING PRACTICE

Messrs. George Newnes have published the first of a series entitled "Modern Building Practice,"* in which they intend to survey all the methods and organization involved in the erection of contemporary buildings.

The general editorship of the series has been undertaken by Mr. Percy Thomas, and the reader for whom it is specially designed is the man engaged in one small field of building who wishes to know what is happening in all the complex operations around him. A very distinguished list of contributors is announced as having agreed to take part.

* *Modern Building Practice.* London : George Newnes, Ltd. In about 40 weekly parts. Price 1s. per issue.

In the first issue, the four volumes, or main divisions of the series, begun simultaneously under the headings: Design and Planning; Building Construction; Materials and Operations; and Equipment of Buildings, and include some interesting notes on hardwood timbers and various types of tackle and lifting gear.

It would appear that the usefulness of the series will be increased if emphasis is placed rather upon materials (their selection, costs, sizes and limitations) and the very many types of tool and equipment used in building, rather than upon such more indefinite subjects as the planning and design of modern buildings. For in dealing with these latter questions, the compressed form of the series must be a serious handicap.

A large number of plans, diagrams and photographs are included in the first issue, and are presumably to be continued in all later numbers.

COMPETITION NEWS

THE BARKING COMPETITION

On Tuesday night the award of the assessor, Mr. H. V. Lanchester, F.R.I.B.A., in the competition for a new town hall and municipal buildings for the Barking Corporation was announced as follows:

Design placed first (£500): Herbert Jackson and Reginald Edmonds, AA.R.I.B.A., of 24 Bennett's Hill, Birmingham, 2.

Design placed second (£250): Bradshaw Gass and Hope, FF.R.I.B.A., of 19 Silverwell Street, Bolton.

Design placed third (£150): E. D. Lyons and L. Israel, AA.R.I.B.A., and C. H. Elsom, of 3, Paul's Bakehouse Court, E.C.4.

Design placed fourth (£50): Basil G. Duckett, A.R.I.B.A., of "Stonegarth," Billinge End, Blackburn.

Commended designs: William Crabtree and Philip G. Freeman, AA.R.I.B.A., of 45 Berners Street, W.1; and H. T. Wright, F.R.I.B.A., of 50 High Street, Newcastle-upon-Tyne.

POLICE AND FIRE HEADQUARTERS, LEAMINGTON SPA

The Borough of Royal Leamington Spa invites architects practising in the area of the Birmingham and Five Counties Architectural Association to enter for a competition for proposed police and fire brigade headquarters, estimated to cost £50,000. Applications for conditions, etc. (deposit £1 1s.), should be made to Mr. Leo Rawlinson, Town Clerk, Town Hall, Leamington Spa, before 10 a.m. on Friday, November 13.

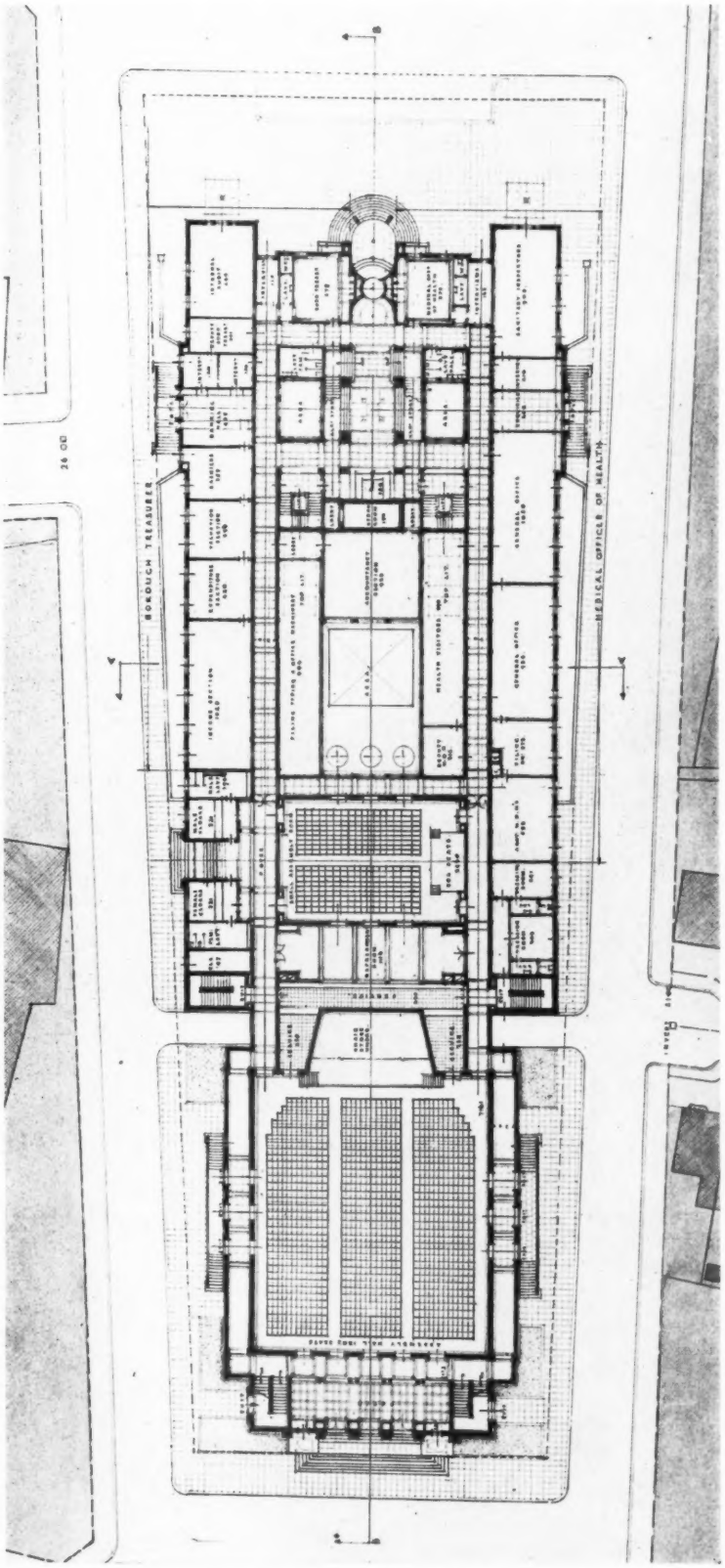
TECHNICAL COLLEGE, GLOUCESTER

We have received the following notice from the City of Gloucester Education Committee in connection with the competition for a proposed technical college at Gloucester. "Some confusion seems to exist in the minds of one or two competitors regarding the ground now occupied by 'the School Buildings on the N.W. portion of the site.' Clause 24 of the Conditions, and the further information contained in the answer to Question No. 1 appear to make the intention abundantly clear, but to make doubly sure, it may be emphasized that it is the intention that the ground occupied by these buildings may be utilized to form the whole or part of the site for the junior technical school as and when it is decided to proceed with this.—Henry V. Ashley, Assessor."

[A full list of Competitions Open was published in our last issue.]

THE BARKING COMPETITION

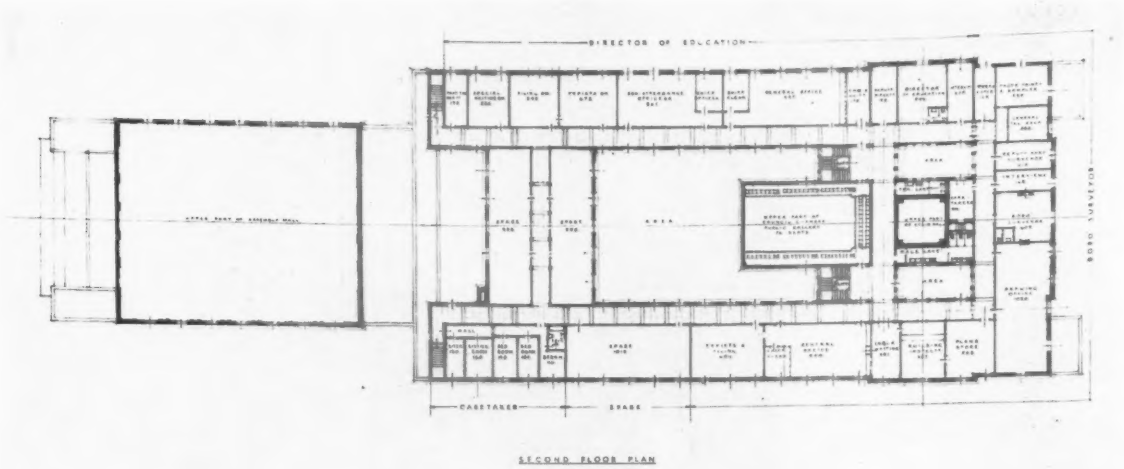
DESIGN PLACED FIRST



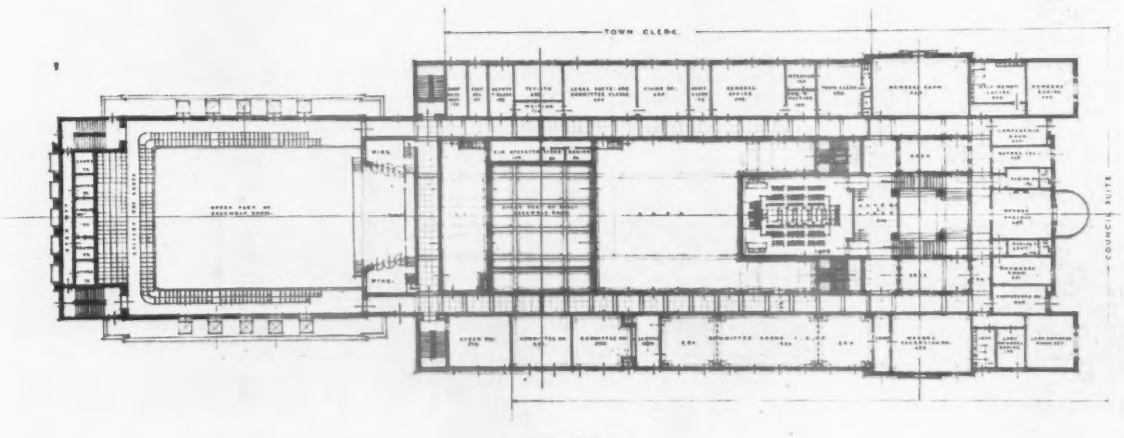
Ground floor plan. See also pages 583, 590-592.

BY HERBERT JACKSON AND REGINALD EDMONDS

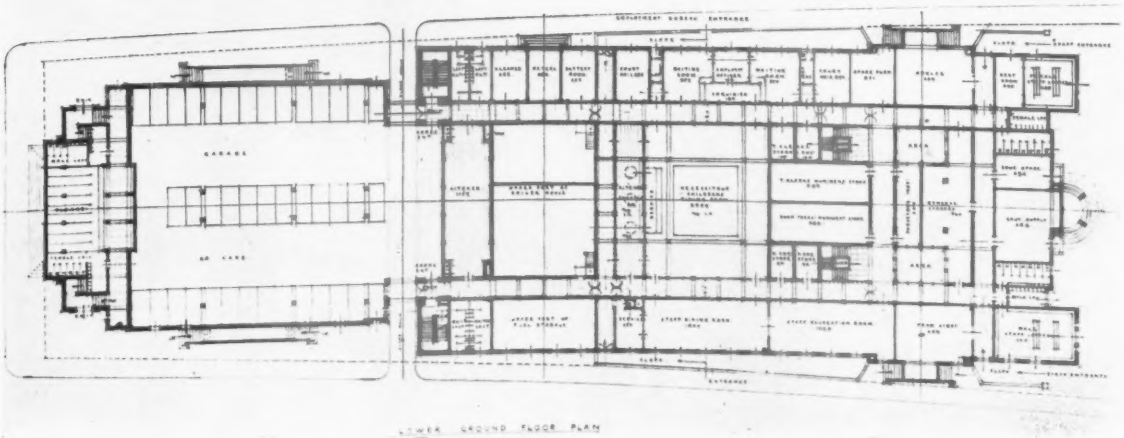
COMPETITION FOR TOWN HALL AND MUNICIPAL



SECOND FLOOR PLAN



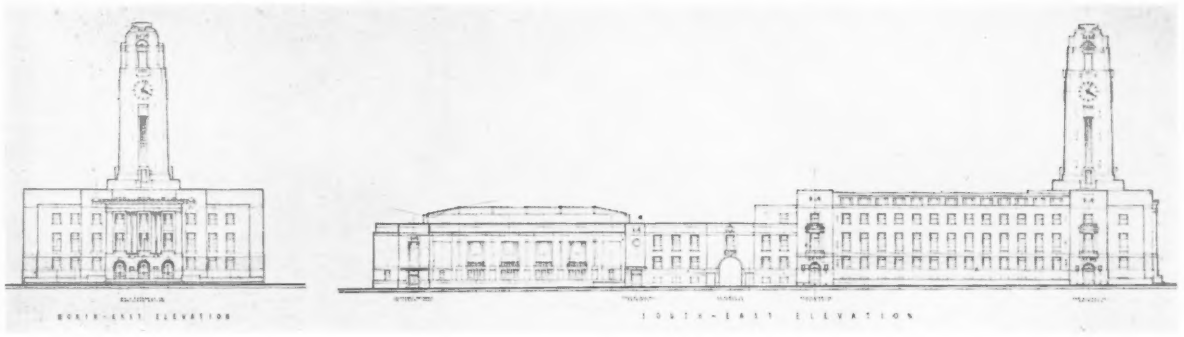
FIRST FLOOR PLAN



LOWER GROUND FLOOR PLAN

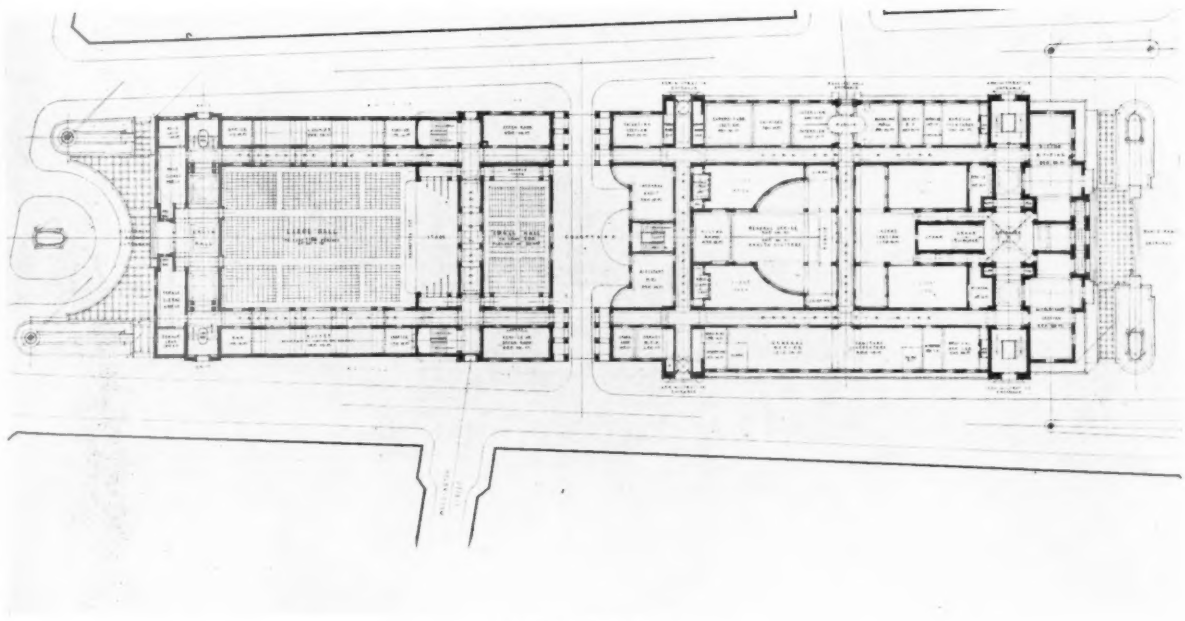
DESIGN PLACED FIRST: BY HERBERT JACKSON AND REGINALD EDMONDS

BUILDINGS, BARKING: THE PREMIATED DESIGNS



North-east and south-east elevations

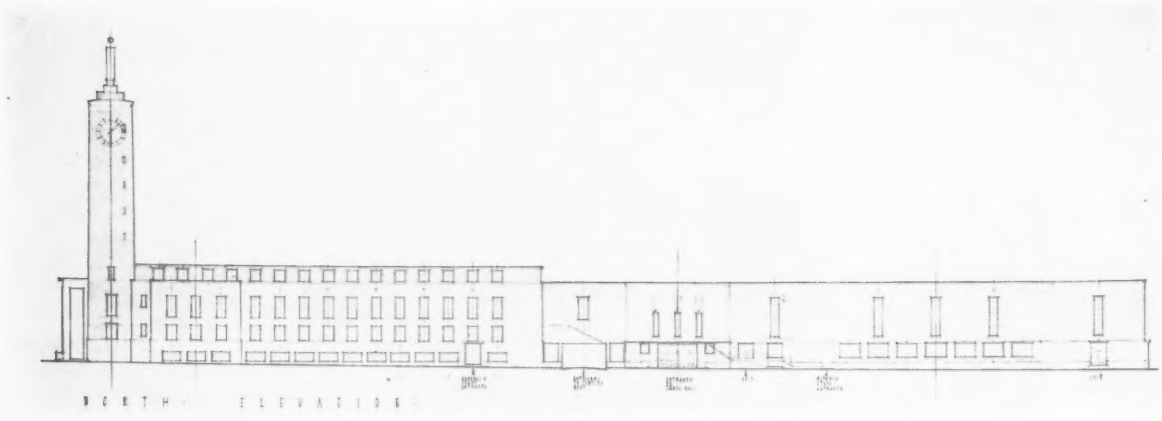
First floor plan

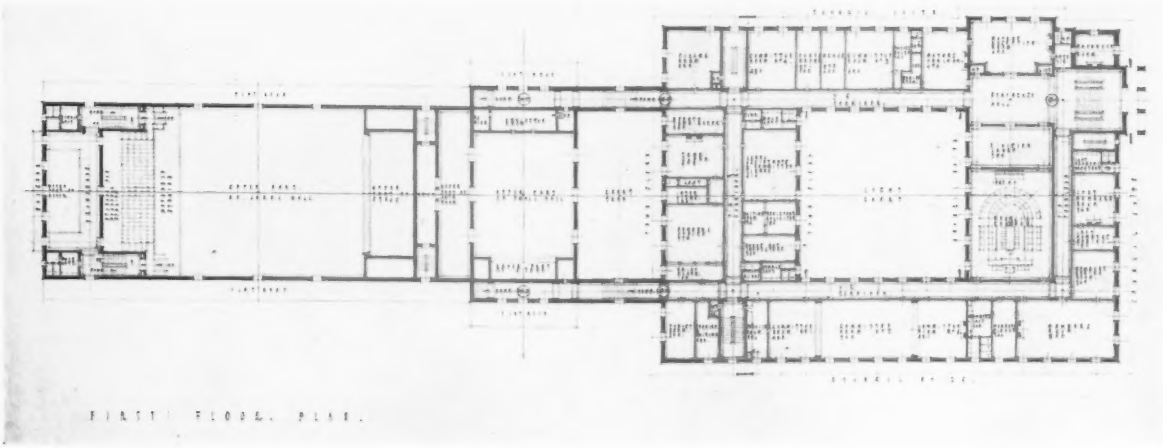


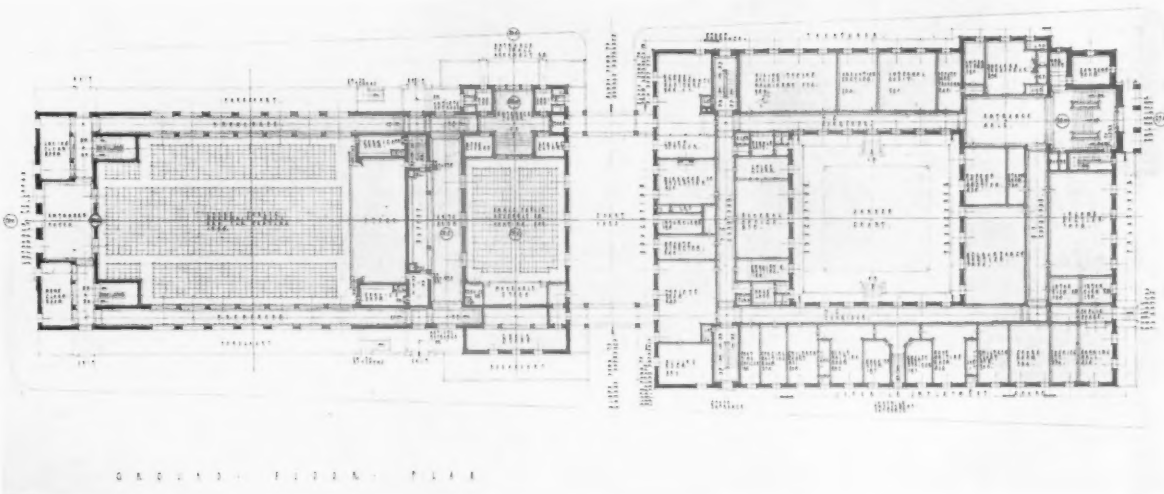
Ground floor plan

DESIGN PLACED SECOND: BY BRADSHAW GASS AND HOPE

THE BARKING COMPETITION: DESIGN PLACED THIRD

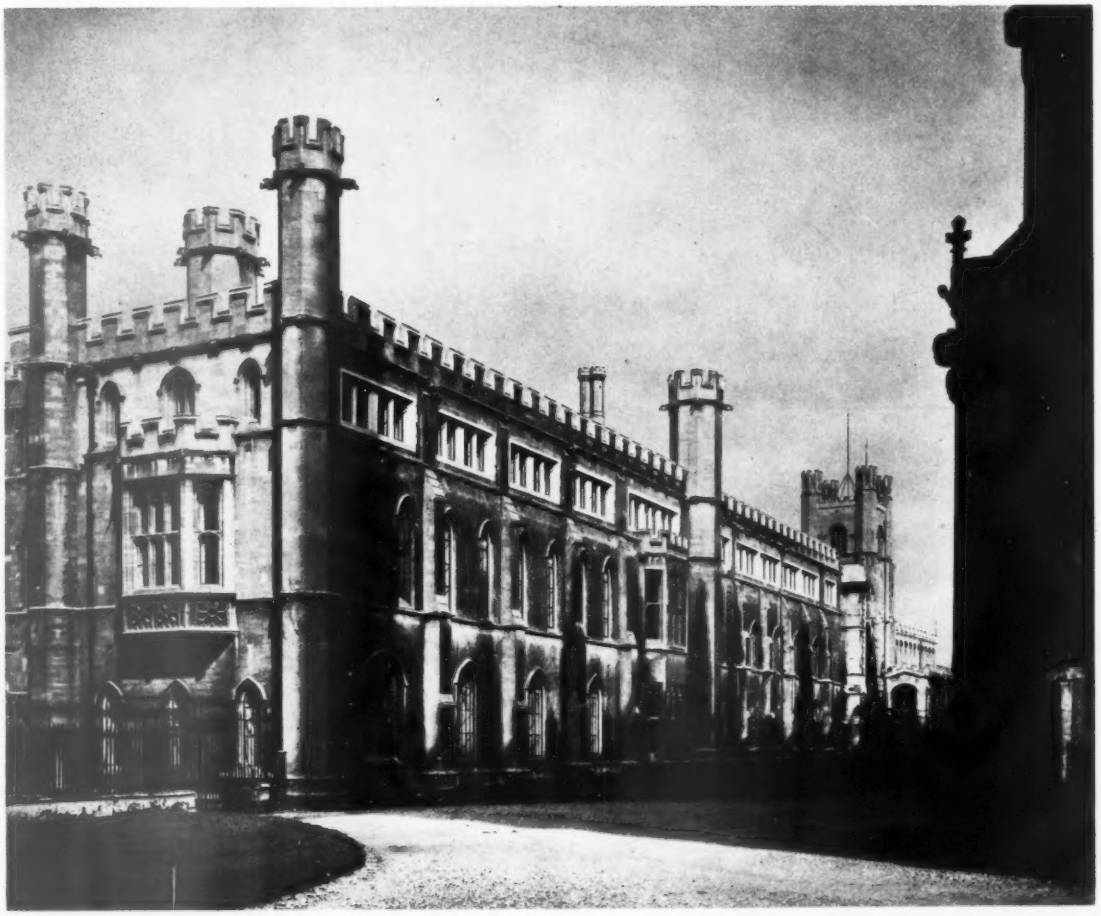






BY E. D. LYONS AND L. ISRAEL AND C. H. ELSOM

CONVERSION, OLD LIBRARY AND SCHOOLS, CAMBRIDGE

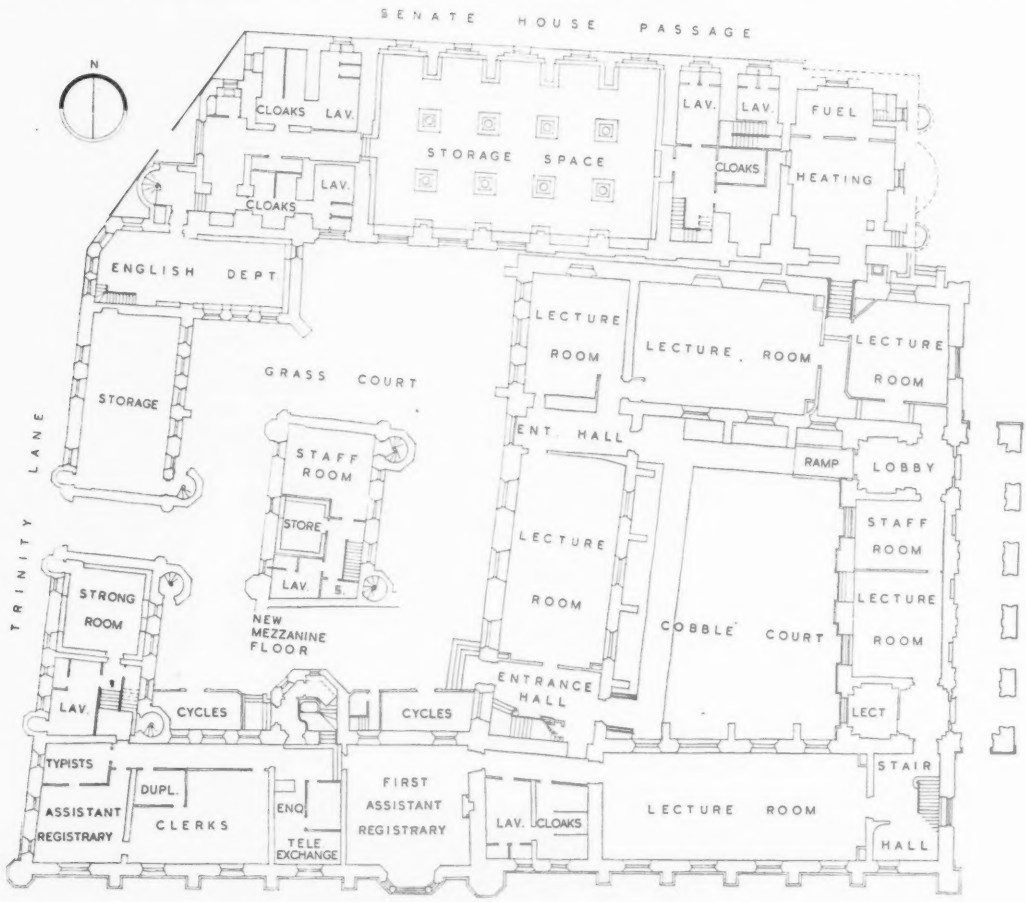


BY STANLEY HALL AND EASTON AND ROBERTSON

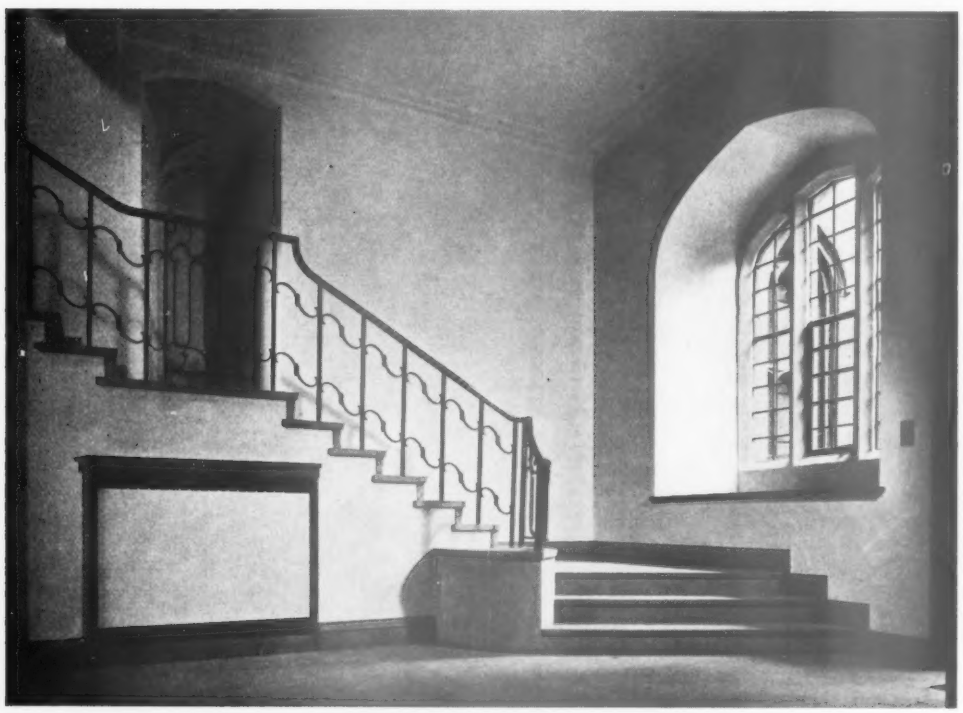
GENERAL PROBLEM — *In recent years the University Library occupied the whole of these buildings, having gradually crowded out the other University departments and faculties which once were housed there. The Library was transferred to the new building designed by Sir Giles Gilbert Scott, and the old Library and School Buildings have now been converted to the uses of the departments of English, Law, History and Modern Languages and the University Offices and Council Rooms. The buildings date from all periods since the fourteenth century, and include subsequent work by Steven Wright, C. R. Cockerell, Sir Gilbert Scott, and J. L. Pearson. The congestion caused by the growth of the library gradually obscured the architectural features and the original character of many of the rooms. In reconditioning the buildings, 60 tons of woodwork have been removed and the rooms revert to something like their original conditions, and in some cases to their original uses.*

The top photograph shows the south side of the group, mainly by Scott, facing King's College. New wide windows have been inserted on the top floor in place of the lancet windows. The photograph on the right is of the Squire Law Library. The galleries have been cut back to their original line, a new hand-railing has been fitted, the ornamental reliefs have been regilded, and a cork tile floor has been laid.

CONVERSION OF OLD LIBRARY AND



GROUND FLOOR PLAN

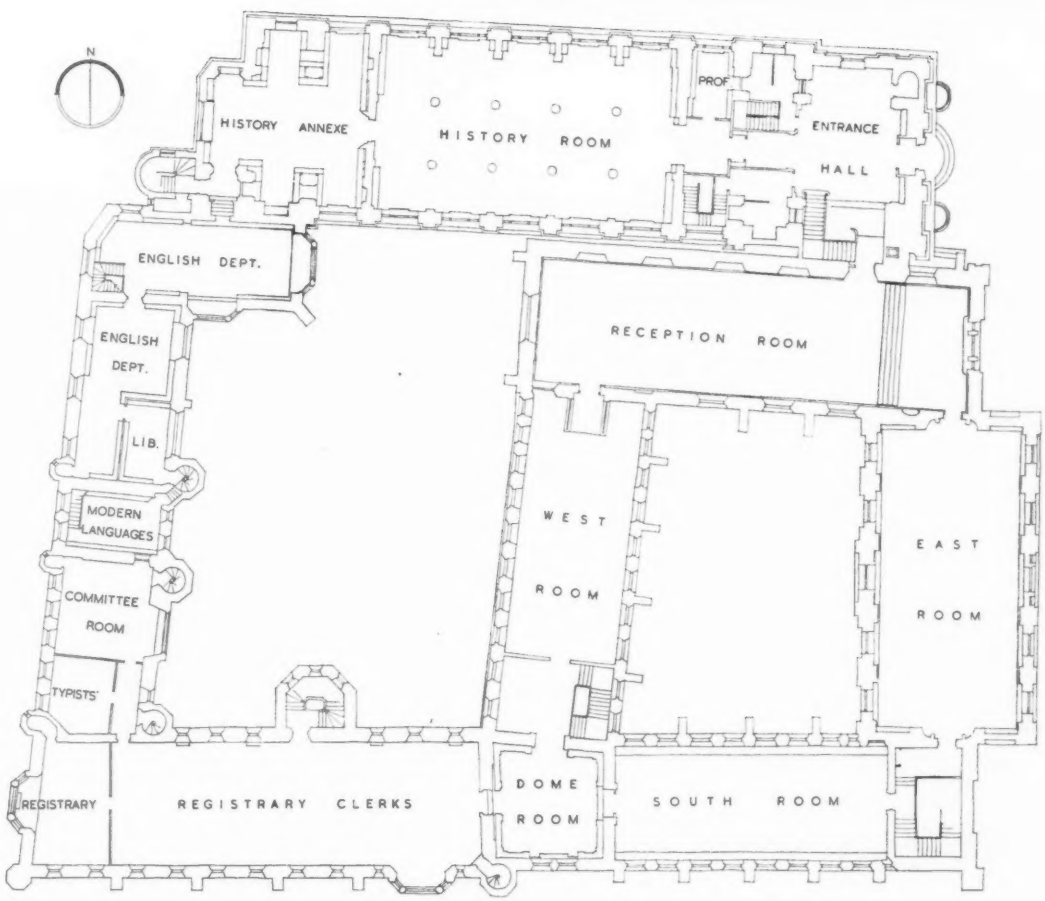


The photograph, left, is of the new staircase between the two courts leading to the reception suite. The stairs are stone; the balustrade is of black iron, with dark bronze handrail.

The photographs on the facing page are of the East Room, left, and the Seeley Historical Library. In the East Room steel roof trusses were substituted without disturbing the ceiling for the wooden ones, which had been attacked by dry rot. Bookcases were removed, and a new oak floor laid.

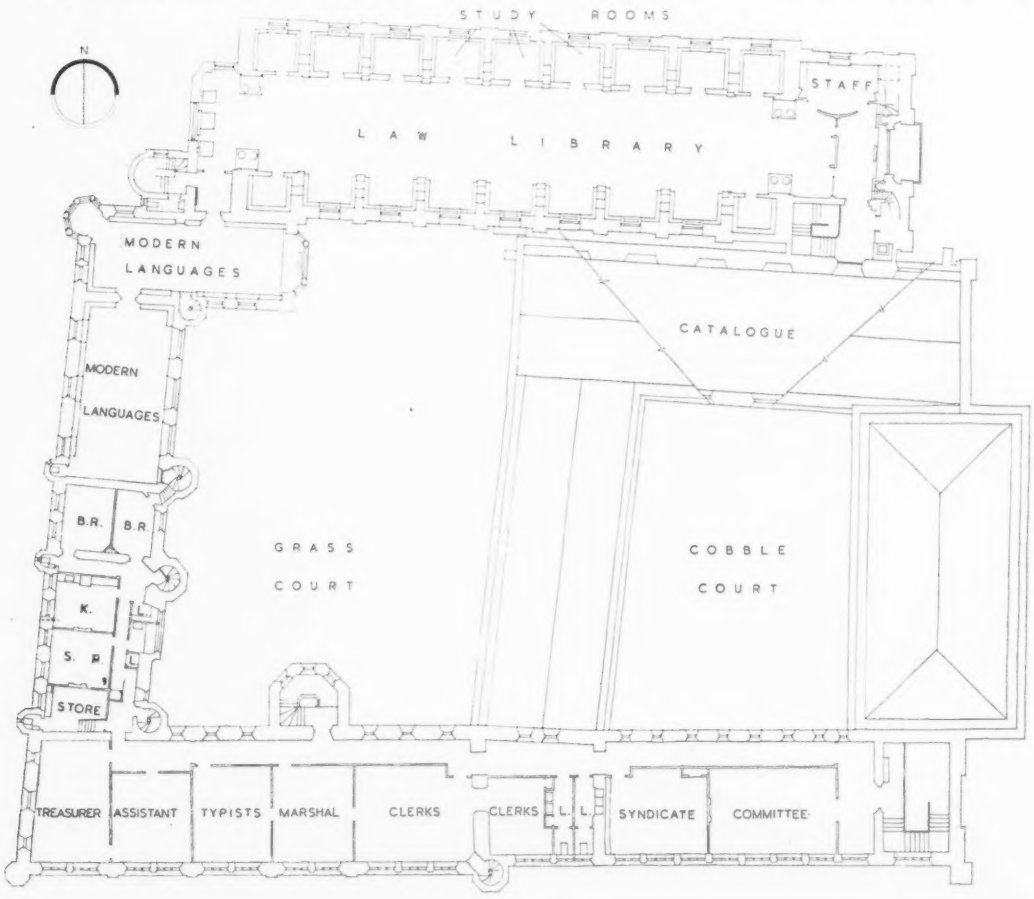
SCHOOLS BUILDING AT CAMBRIDGE UNIVERSITY

BY STANLEY HALL AND EASTON AND ROBERTSON



FIRST FLOOR PLAN

CONVERSION OF OLD LIBRARY AND

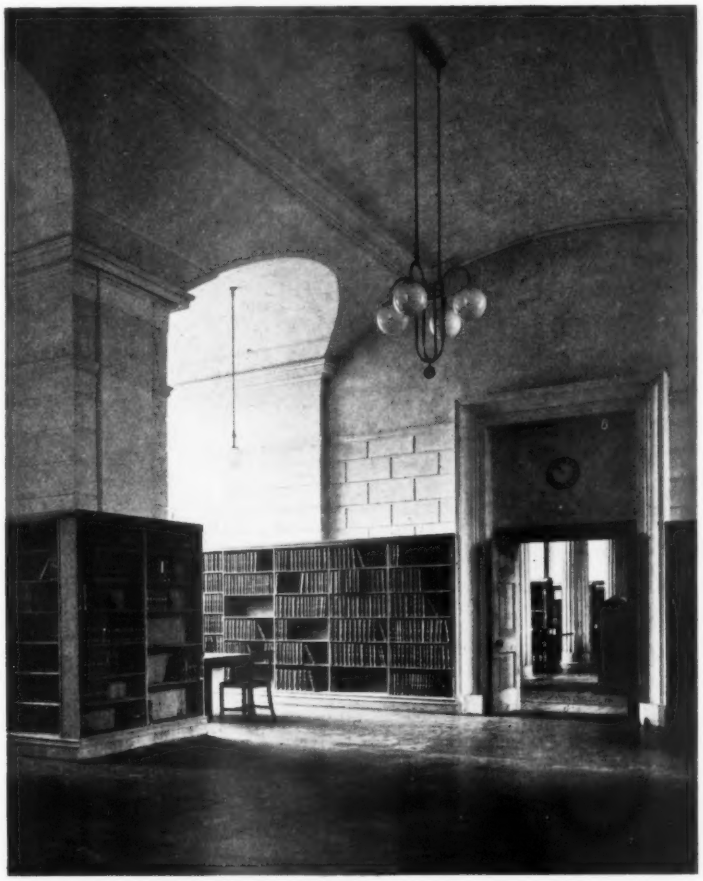


SECOND FLOOR PLAN

The photographs show the Squire Law Library, previously the Cockerell Room; left, before, and right, after alteration.

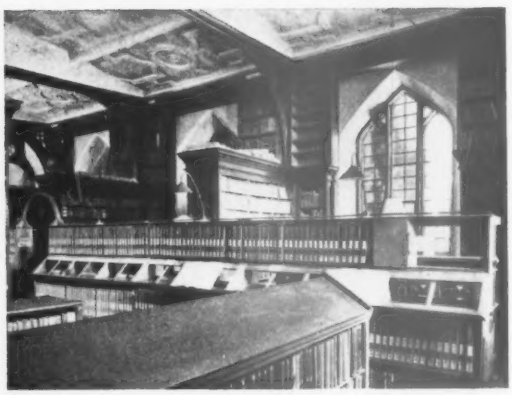
SCHOOLS BUILDING AT CAMBRIDGE UNIVERSITY

BY STANLEY HALL AND EASTON AND ROBERTSON



The photographs show : Top, left, the Council Room ; right, the Seeley Historical Library. Bottom, left, the Syndicate Room ; right, furniture in the Seeley Historical Library. The Council Room, the original University Library, has an elaborately panelled and moulded mid-fifteenth century ceiling. The carved figures at the feet of the brackets have been painted by Professor E. W. Tristram. Two continuous seats under the windows on either side and a new oak floor have been provided. Pendant light fittings are red and white ; furniture is oak and red leather. The Syndicate Room, formerly the West Room, contains seventeenth-century casement windows. The ceiling, of deal in large panels, has been painted rich blue, with gold lines. Walls are white ; floor, oak. Lighting is by two blue, white and gold ceiling pendants and gilt wall brackets with white glass bowls.

CONVERSION, OLD LIBRARY AND SCHOOLS, CAMBRIDGE



BY STANLEY HALL AND EASTON AND ROBERTSON

INTERIOR TREATMENT—*In reconditioning the buildings the architects have respected the work of their predecessors, and where it has been necessary to alter or add, the work has, with very few exceptions, been done in a manner that is unmistakably of the present day. The work was tackled room by room.*

During the carrying out of the work, Scott's drawings for the University Council Room, now the "First Assistant Registrary," and its furniture were found in a desk. The furniture had been dispersed about the University, but the pieces were identified by the drawings and replaced in their original positions. Except for a modern light fitting, the room is now as Scott designed it.

SERVICES—*A new heating plant, lighting system and a new lift have been installed in the spiral staircase in the south block.*

COST—*£60,000.*

For list of general and sub-contractors, see page 612.

The photographs show : Regent House, formerly the Catalogue Room, above, after, and, left, before alteration.

WORKING DETAILS : 515

PORCH • TIMBER HOUSE AT WOODFORD GREEN, ESSEX • LE MARE AND PROSKAUER

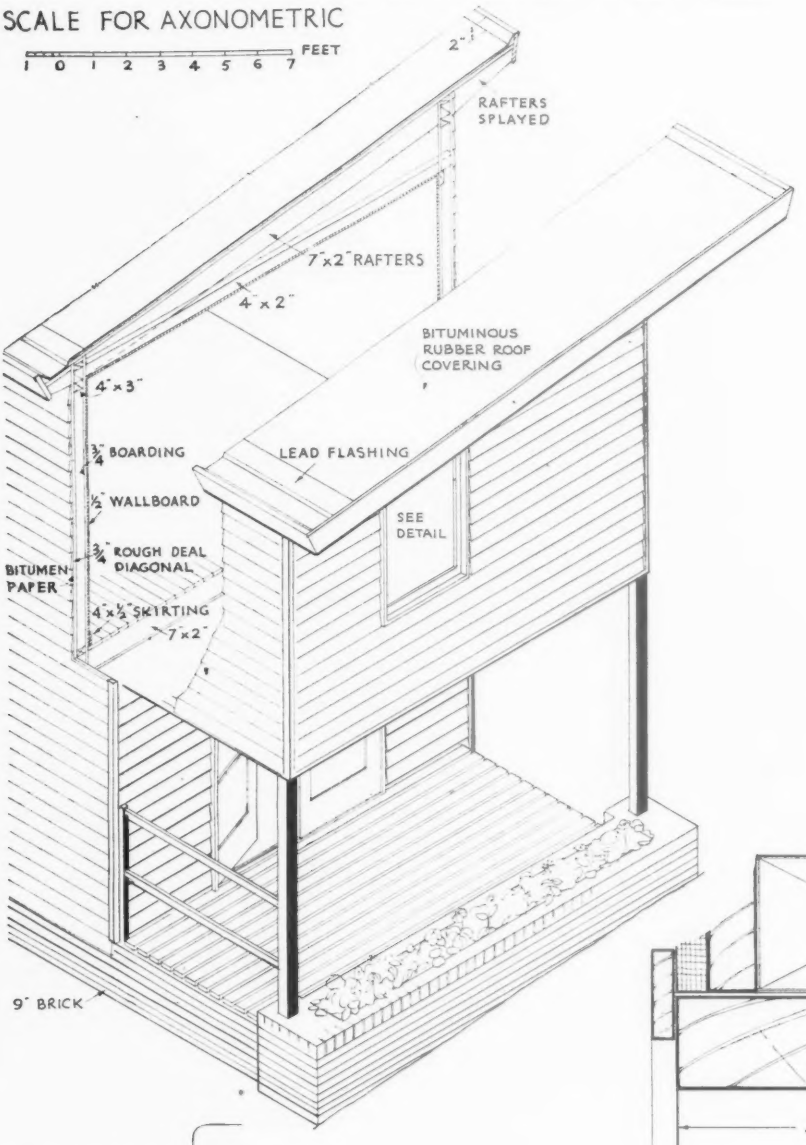
This photograph shows the porch at the end of the living-room. Details of construction are given overleaf; and further photographs and plans are given on pages 608-609 of this issue.

WORKING DETAILS : 516

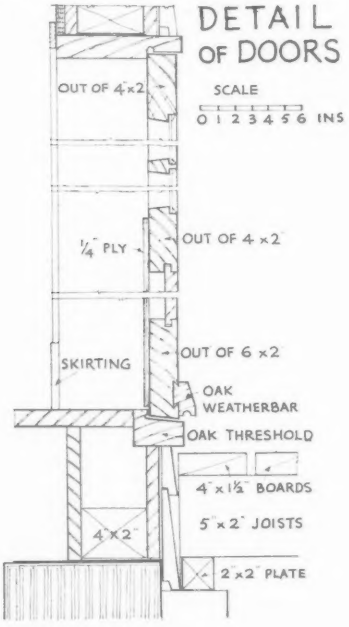
PORCH • TIMBER HOUSE AT WOODFORD GREEN, ESSEX • LE MARE AND PROSKAUER

SCALE FOR AXONOMETRIC

1 0 1 2 3 4 5 6 7 FEET



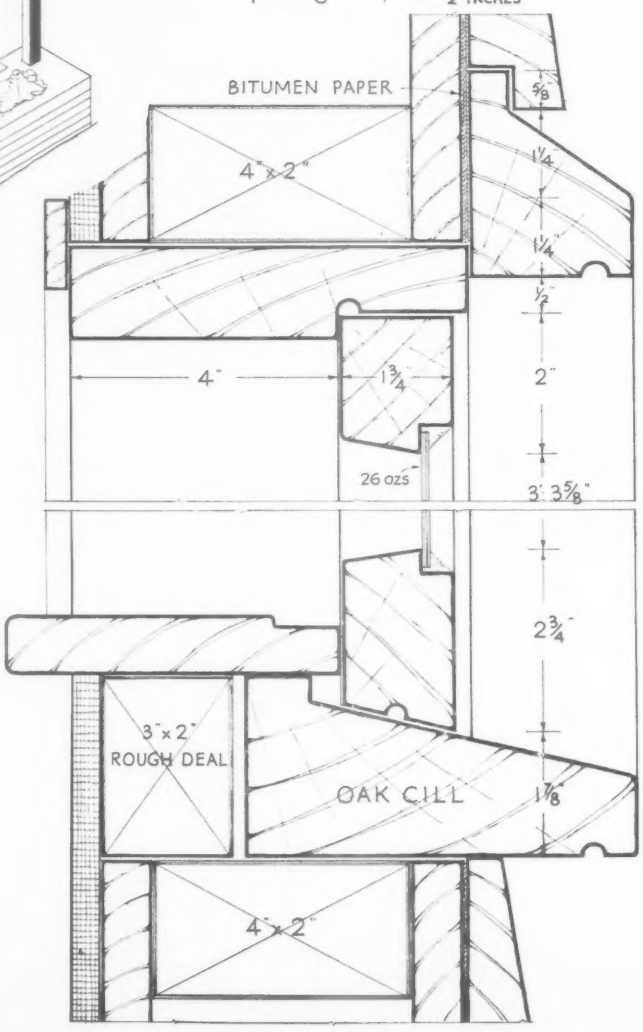
DETAIL OF DOORS



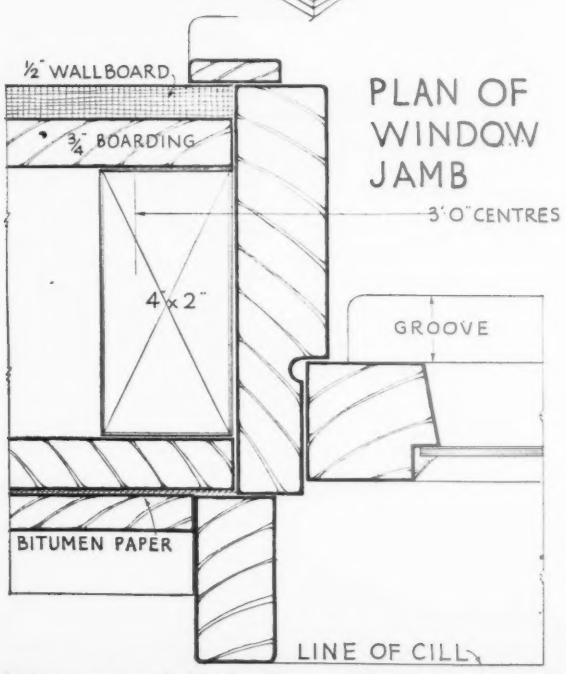
SECTION OF WINDOW

SCALE

1 0 1 2 INCHES



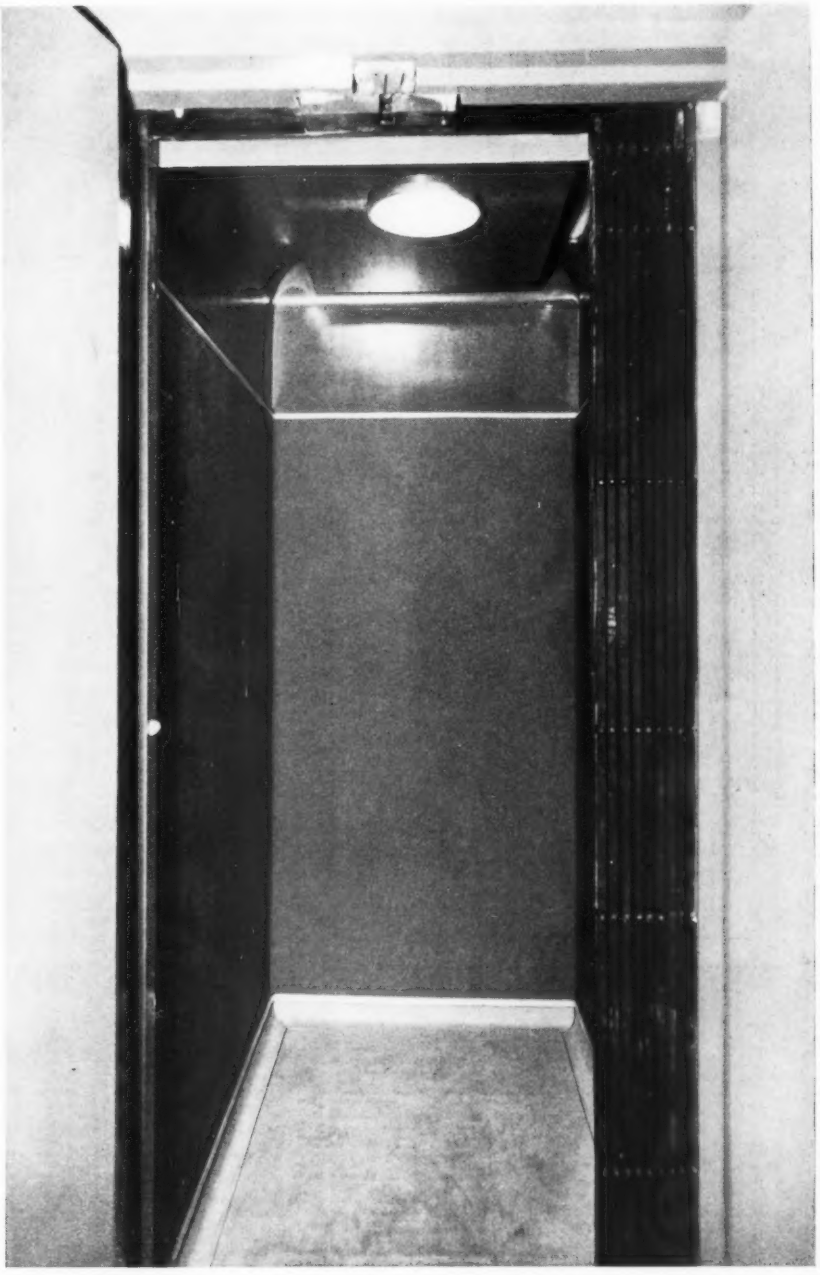
PLAN OF WINDOW JAMB



Axonometric and details of the porch illustrated overleaf

WORKING DETAILS : 517

LIFT • BRAE COURT, KINGSTON-ON-THAMES • ARMSTRONG AND BAYNE

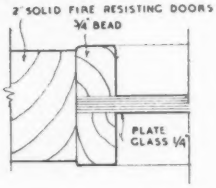


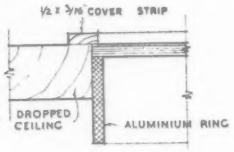
Above is a photograph of a lift at Brae Court, Kingston (illustrated in this *Journal* for August 13 last). The sides are rubber lined and the floor also is rubber. Details are given overleaf.

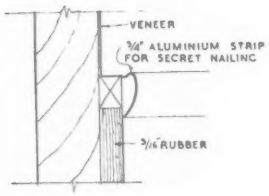
FILING REFERENCE:

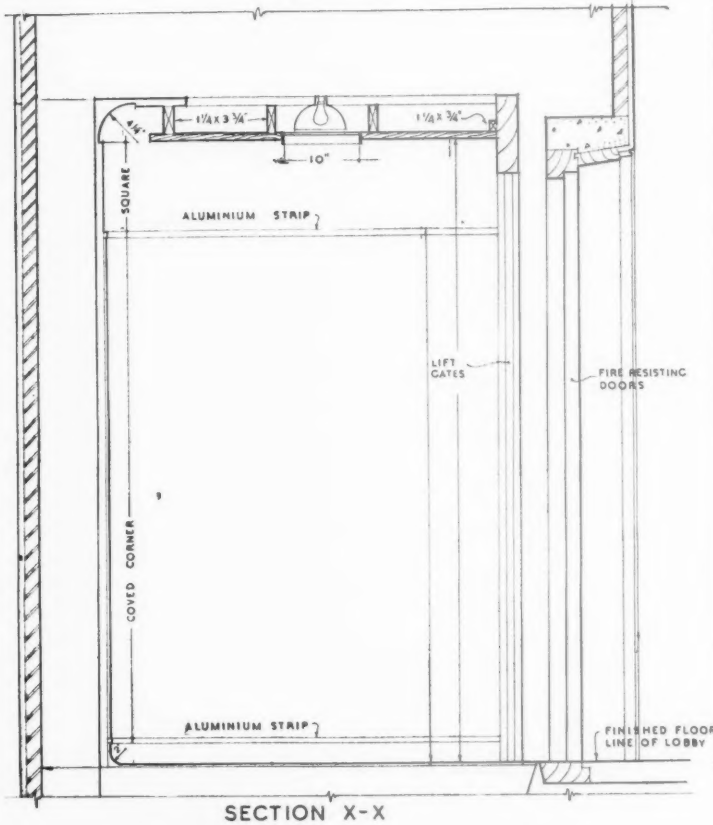
WORKING DETAILS : 518

LIFT • BRAE COURT, KINGSTON-ON-THAMES • ARMSTRONG AND BAYNE

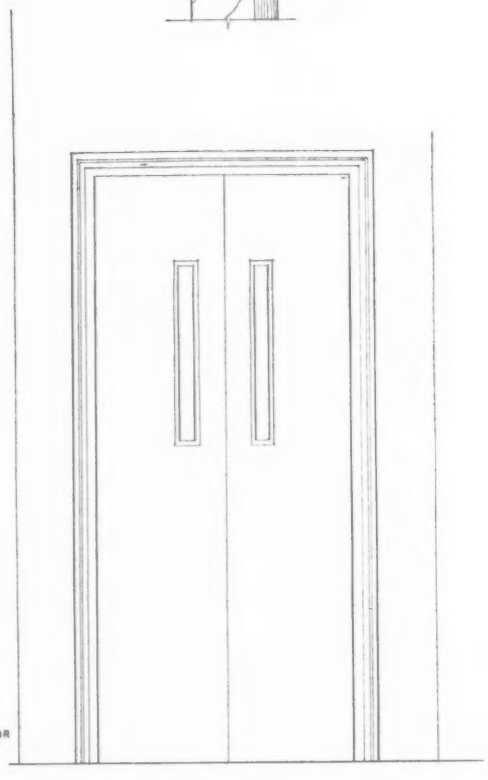




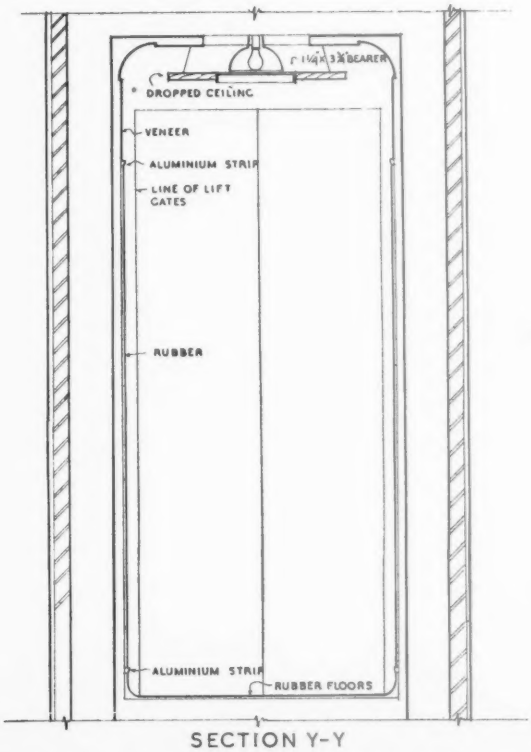




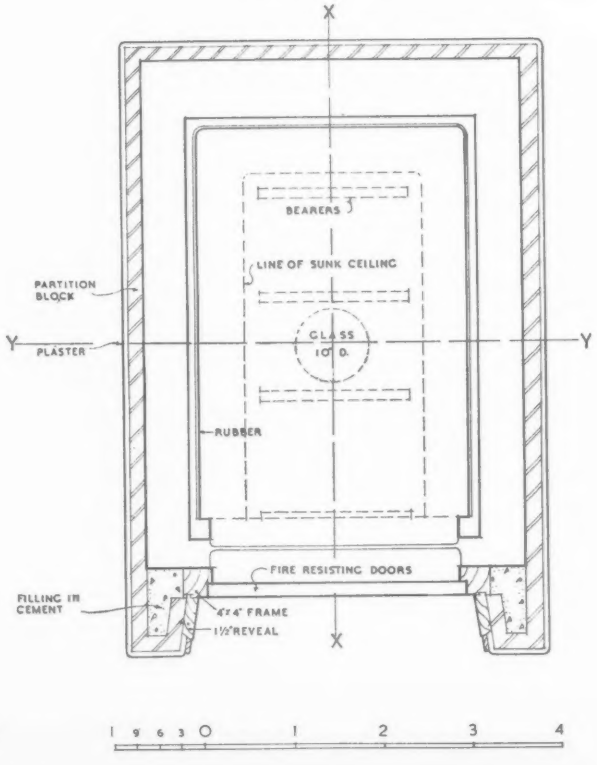
SECTION X-X



ELEVATION



SECTION Y-Y



Elevation and sections of the lift illustrated overleaf.

BUILDING OPERATIONS

THE ANDREAE *V.* SELFRIDGE CASE

[*BY T. J. SOPHIAN*]

(*Barrister-at-Law*)

ALL persons who are engaged in or who may be contemplating building operations of any kind, particularly in urban areas, might advantageously be reminded of the recent decision that was given in the case of *Andreae* v. *Selfridge & Co., Ltd.*

It is a maxim of the law that a person must not use his property in such a way as to cause injury to others, *Sic utere tuo ut alienum non laedas*, but this maxim is relaxed in certain circumstances. Acts necessary for the common and ordinary use of land and houses, done as conveniently as possible, may be justified even though they may constitute an annoyance to the occupiers of neighbouring property.

The extent to which the general principle may thus be relaxed will be found to be well illustrated by the facts of the above-mentioned case.

The plaintiff was the occupier of an hotel on an island site, on which building operations were carried on by the defendants.

The plaintiff's first complaint was of nuisance by *noise* caused by building operations upon the south-east corner of the site; while her second complaint was of nuisance by *dust*, *grit* and *noise* by operations consisting of demolition and rebuilding carried on somewhat later on the south-west corner of the site.

With regard to the first operation, the defendants excavated the site to a depth of some 50 to 60 feet, after which they proceeded to cover the ground with concrete and to build concrete retaining walls, and then in the site so excavated and so made sound they proceeded to erect a steel framework consisting of joists, stanchions and girders; and, having put the steel framework together, they proceeded to rivet the several pieces together. All these operations, which took place within a few yards of the plaintiff's premises, occupied a considerable period of time, throughout which there was an incessant noise.

The noise was caused by navvies operated by petrol engines engaged in the excavation, mechanical concrete-mixers operated by petrol engines working over a period of months, cranes (five in number) operating almost daily for nearly a whole year; the hammering of bolts into the steelwork and finally the riveting of the steelwork, this latter process continuing for two months or thereabouts.

The second operation, according to the plaintiff's complaint, occasioned a nuisance by dust, grit and noise.

The demolition occasioned quantities of dust and grit to enter into the plaintiff's premises, and the noise was caused by the use of pneumatic hammers for some hours a day, though not for any great length of time nor for a great number of days—the number of days was about three or four—and, in addition, by falling masonry and the number of workmen engaged upon the operations, which were of a very extensive scale.

The defendants' answer to the complaint made against them may thus be summarized. Admitted that there may have been dust, grit and noise, they were all caused by the works of demolition and rebuilding, which were of a temporary nature; and in the execution of these works the defendants employed methods as good as the methods generally employed by skilful firms in carrying out similar work in this country, and these methods were carried out with reasonable care and skill.

It may be convenient to refer to some of the authorities. Nuisance is incapable of any legal definition which will be appropriate to every case, as was pointed out in *Bamford* v. *Turnley* (1862, 3 B. and S. 66). The question depends on the surrounding circumstances; the place where, the time where, the alleged nuisance was committed; what the mode of committing it was and how, the duration of it, whether temporary or permanent, occasional or continual, and so forth.

In *Bamford* v. *Turnley*, the act complained of was the burning of bricks on adjoining land, and it was held that it was not an answer that the act was done in a proper and convenient spot and was a reasonable use of the land. The fitness of the locality for the doing of the particular act does not prevent the carrying on of an offensive though lawful operation from being an actionable nuisance.

The general maxim, as already stated, is *Sic utere tuo ut alienum non laedas*. But the law does, on the other hand, recognize an exception to this principle. The difficulty lies in finding exactly the extent to which the exception goes.

In *Andreae* v. *Selfridge & Co., Ltd.*, Mr. Justice Bennett considered that the dictum of Baron Bramwell in *Bamford* v. *Turnley* contained the test to be applied.

"Those acts necessary for the common and ordinary use and occupation of land and houses may be done, *if conveniently done* without subjecting those who do them to an action."

Two essentials, therefore, are necessary in order to come within the exception :

1 : The acts must be necessary for the *common* and *ordinary use* and occupation of the land.

2 : They must be *conveniently done*, i.e. all the methods generally employed by skilful persons in the conduct of such operations must be employed, and they must be employed with reasonable care and skill, and the comfort and enjoyment of occupiers of neighbouring premises must be disturbed as little as possible.

If one applies these principles to the facts in *Andreae* v. *Selfridge & Co., Ltd.*, it would seem both the above conditions were infringed.

In the first place, the extensive and extraordinary operations carried on could not be said to have constituted a common and ordinary use of the land.

As Mr. Justice Bennett pointed out in his judgment :

"I cannot regard what the defendants did on the site of the first operation as having been commonly done in the ordinary use and occupation of land or houses. It is neither usual nor common in this country for people to excavate a site to a depth of 60 feet and then to erect upon the site a steel framework and fasten the steel frames together with rivets; nor is it, I think, a common or ordinary use of land, in this country, to act as the defendants did when they were dealing with the site of their second operation, namely, to demolish all the houses that they had to demolish, five or six of them, if not more, and to use for the purpose of demolishing these pneumatic hammers."

Secondly, the defendants acted, in the opinion of the learned judge, with a complete disregard from the outset of the operations for the comfort of their neighbours.

"Whatever is necessary in the way of noise," said Mr. Justice Bennett, "in order that the defendants may carry out their operations speedily, and save themselves money, they seem to think that they are entitled by the law of this country to do. . . . All these acts may be very convenient, but I think if you build in that kind of way and demolish in that kind of way, and it is proved that when you have demolished in that kind of way and built in that kind of way you have caused pecuniary loss

to your neighbour, it is only fair that you should compensate him for what you have done rather than that he should suffer."

This decision appears to have important implications for architects commissioned to redevelop large urban sites.

LAW REPORT

BUILDING REGULATIONS, 1926. QUESTION OF CONSTRUCTION

Kearns v. *Gee, Walker and Slater, Ltd.—Court of Appeal. Before Lords Justices Slesser and Scott and Mr. Justice Eve.*

THIS was an appeal by the plaintiff, John Kearns, a bricklayer, from a decision of Judge Dumas, of the Westminster County Court, in favour of defendants, Gee, Walker and Slater, builders and contractors.

The question raised was one of construction under the Building Regulations, 1926, which apply to all new buildings under construction or old buildings, to which additions are being made.

Mr. Pugh, for the appellant, stated that his client was employed by the respondents on the rebuilding of the premises of John Barnes & Co., Ltd., in the Finchley Road. He was working on a scaffold which had been in position for a day and a half, filling up steel construction with brickwork, when he was struck on the head by some bricks which fell from a wheelbarrow being used by another workman on a higher floor, after the bricks had been hoisted to that floor. Plaintiff was away from work for some three weeks. He brought his action to recover £50 damages in respect of his injuries.

The defence set up by the defendants was that of common employment. To that the plaintiff replied that the accident was caused by the negligent breach of the statutory regulation, viz., paragraph 31 of the Building Regulations made under the Factory and Workshop Act, 1901, which was as follows :—

"Any part of the premises in which any person is habitually employed shall be covered in such a manner as to protect any person who is working in that part from being struck by any falling material or article."

When the matter came before Judge Dumas the plaintiff gave evidence and said he was on the outside of the building work, about four storeys up, and had not before been engaged on that particular wall. The next floor had been concreted and there were a lot of bricks stacked upon it. There were no planks on the scaffolding above him, and if he looked up it was into the sky.

Counsel said there was evidence that the plaintiff was struck by several bricks falling from above him and that there was no protection at the point where plaintiff was working. The County Court Judge, however, came to the conclusion that where plaintiff was working was not a part where someone was habitually employed and entered judgment for the defendants. In case there was an appeal and the Court found plaintiff was entitled to damages, he fixed the damages at £25.

Counsel argued that the County Court Judge arrived at a wrong decision as regards the legal construction of the regulation, and he asked that the appeal should be allowed.

After hearing Mr. Beney for the respondents, the Court allowed the appeal and entered judgment for the plaintiff for £25 with costs on Scale C.

Lord Justice Slesser, in giving judgment, said it was clear that the opening words of the Regulations showed that they were applicable to all premises on which machinery was being worked by steam, water or other mechanical power. Mr. Beney had argued that the present case did not come within the regulations because the machine being used to hoist the bricks was being worked by electricity and that this was not "other mechanical power."

In his lordship's view a machine worked by electric power was just as much worked by mechanical power as if by steam or by water.

Next he came to the question of construction of the paragraph of the Regulations raised in the case. In his opinion the paragraph applied to those parts of the premises which it was necessary to keep covered against accidents. On the evidence it was impossible to say that the persons who worked there were not habitually employed there, or that the place where the accident happened was not a place where any person was habitually employed. The County Court judge had asked himself whether the plaintiff was habitually employed there. That was an error. The person who was working in that particular part need not himself be habitually employed in that part. Under these circumstances the appeal would be allowed and judgment entered for the plaintiff for £25.

Lord Justice Scott and Mr. Justice Eve agreed.

HOUSING AND TOWN PLANNING

The seventeenth annual report of the Ministry of Health, covering the year 1935-36, was published on Friday last. (H.M. Stationery Office. Price 5s.).

The chief features of the report are the sections devoted to housing and town planning. The Government's policy in housing is divided into three parts, details of which are given below :—

(1) *Slum Clearance.*—The position is summarized in the statement that local authorities "have settled into their stride in translating paper programmes into performance. The rate of progress achieved by the latter part of the year [1935-36], if continued steadily, is sufficient to ensure fulfilment of the programme in the prescribed period of five years, outside a few large towns in which the scope of the operations is exceptionally large."

Local authorities "declared" 3,585 clearance areas, with a population of 203,222, during the year, and the Minister confirmed Clearance Orders involving 107,906 persons, and Compulsory Purchase Orders involving 56,384 more. An important ancillary means of securing a proper standard of housing is the machinery for rendering existing houses fit for habitation; 493,567 houses were so made fit during 1934 (the latest year for which information is available).

(2) *Abatement of Overcrowding.*—The beginning of the campaign against overcrowding is reported. Since the period to which the Report relates the full results of the National Overcrowding Survey have been published; the latest figures reveal the existence of 344,265 overcrowded houses out of the 9,039,513 houses inspected.

(3) *General House Building.*—No fewer than 271,389 houses were erected by private enterprise during the year without assistance from public funds. Seven out of every eight of these (59,938 of them houses to let) had a rateable value not exceeding £26 (£21 to £35 in Greater London).

Other housing matters dealt with are the appointment and activities of the Central Housing Advisory Committee, progress in rural housing, especially slum clearance and reconditioning under the Housing (Rural Workers) Acts, the average cost of subsidy houses, co-operation between local authorities and voluntary housing associations, and the problem of managing municipal housing estates, especially for those displaced from slums. The Report states that "experience shows that much can be done by tactful supervision to teach the tenant that as a responsible citizen he too has duties to perform, that a house is more than a place to live in, that it is a home in which he can take genuine pride of possession . . . and . . . continuous close contact with the tenants by a well-trained manager often gives remarkable results within a very short time."

Another problem of the new estates is that of adequate provision for the needs of community life. The Report particularly emphasizes the importance of establishing Youth Community Centres on the larger estates.

The housing section of the report concludes with a separate chapter on the progress of London housing during the year.

In the town and country planning section it is pointed out that the year under review "has been one of great progress in the preparation and making of schemes. . . . Side by side with the progress in making schemes has gone a steady increase in the extent of land for which schemes are being prepared. More than half of England and Wales is now under planning. So marked has been the progress that there is a shortage of experienced technical officers to assist in preparing schemes."

The largest areas included in resolutions to plan which were approved during the year were 81 square miles in the County of London, and a million acres in the North Riding of Yorkshire. Planning by Joint Executive Committees each including a number of authorities continues to gain ground, and now covers three-fifths of the whole area under planning.

With regard to appeals, the Report states that 863 were received by the Minister during the year, the most common type being for permission to erect or use a building for a non-residential purpose in an area which the authority is proposing to zone as residential. A class of appeal which is rapidly increasing is for permission to erect flats in an area allocated primarily to dwelling-houses. Other cases described in this section of the Report include proposals for petrol-filling stations, an "Approved School" for juvenile offenders, an hotel, an up-to-date pig-farm, unsightly bungalows which could be improved in appearance without substantial cost, permanent holiday camps and illuminated advertising signs.

ALMSHOUSES AT GEDLING, NOTTS.

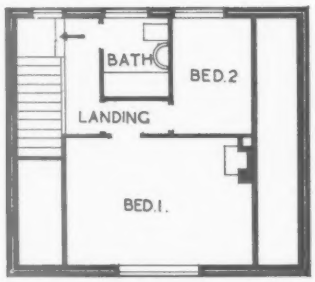
DESIGNED BY T. CECIL HOWITT

GENERAL PROBLEM—*Almshouses for aged miners, erected from the interest on a capital sum of money left by the late Miss M. E. Hardstaff. The trustees desired that, if possible, the majority of the accommodation should be provided on the ground floor, and that one small bedroom should be included in each almshouse in addition to the double bedroom, for the use of a person who might be required to assist the occupants when they become very old.*

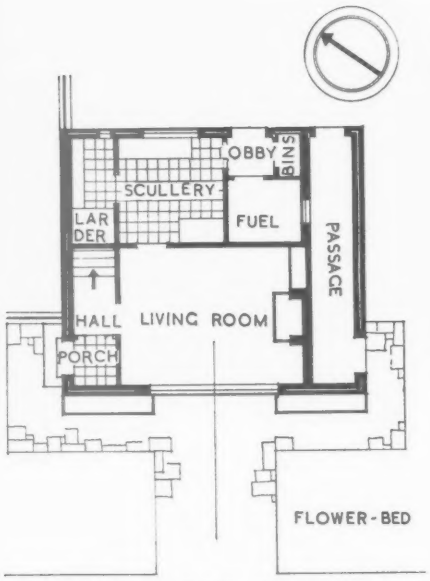
SITE—*In Arnold Lane, Gedling, Notts., on a low-lying site. A sunken lawn was placed in front of the almshouses to economise ground work in filling up the site. The front lawns and gardens have been planted by the trustees and are cared for by the tenants. Behind the almshouses are gardens for the private and individual use of the tenants.*

The photographs show : above, two general views of the entrance front ; and, left, the centre doorway on the entrance front, with cast-lead shield finished in coloured enamels.

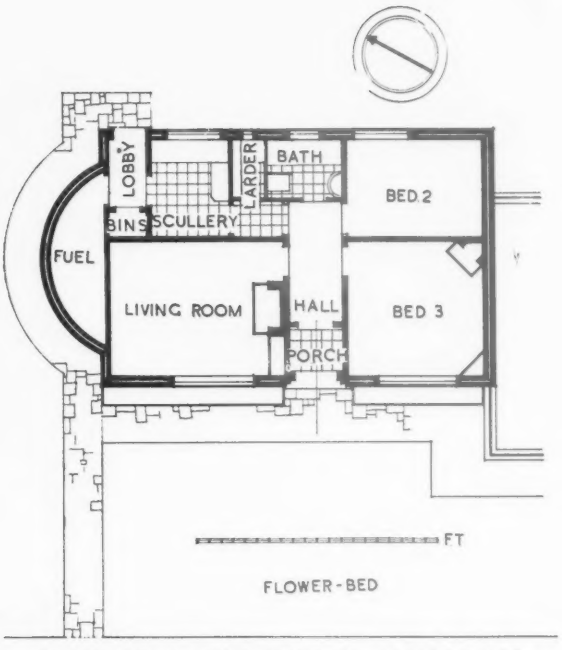
ALMSHOUSES AT GEDLING, NOTTS:



FIRST FLOOR PLAN



GROUND FLOOR PLAN OF A TWO-STOREY ALMSHOUSE



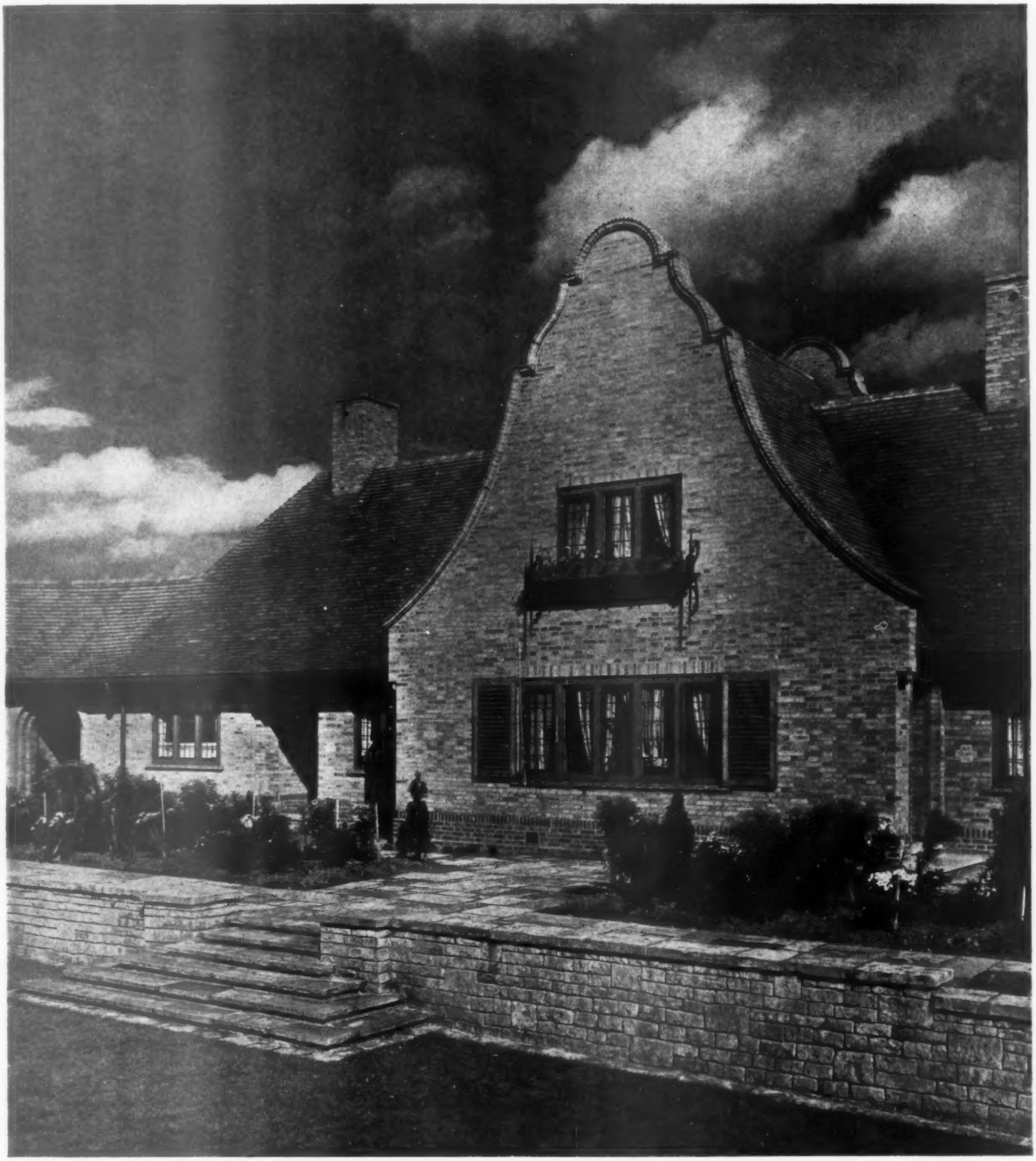
PLAN OF A ONE-STOREY ALMSHOUSE

PLAN—*The two-storey almshouses have been introduced to avoid a monotonous skyline. Archways, with ornamental wrought iron grilles, link the houses together and close off the back doors from the main front.*

CONSTRUCTION—*2-in. facing bricks of warm stone colours, with quoins and window jambs in bricks of golden- and warm-brown, all finished with wide flush joints. The roofs are covered with greyish-brown tiles of a slightly stronger tone than the brickwork. The steel casements have wood frames and mullions, and are painted pale apple green. Window boxes and shutters are oak.*

The photograph shows one of the entrance gates from Arnold Lane.

DESIGNED BY T. CECIL HOWITT



INTERNAL FINISHES—*Walls of living rooms and entrance halls are finished in hardwood, with floors of waxed oak. Walls of service quarters are finished in hard cement with floors of small brown quarry tiles. In all the sculleries are built-in tables.*

SERVICES—*Under each scullery floor is a rain-water storage tank with a semi-rotary pump, which provides soft water to the sink. There are no sewers in the vicinity of the scheme. A septic tank storage system therefore is installed some 300 yards from the site.*

CONTRACT PRICE—*£9,000.*

PRICE PER FT. CUBE—*1s. 1¼d., without ground works; 1s. 5⅜d. with ground works.*

For list of general and sub-contractors see page 612.

The photograph is of a two-storey almshouse.

HOUSE AT WOODFORD GREEN, ESSEX: BY

GENERAL PROBLEM — *A timber cottage to accommodate a gardener, his wife and four children.*

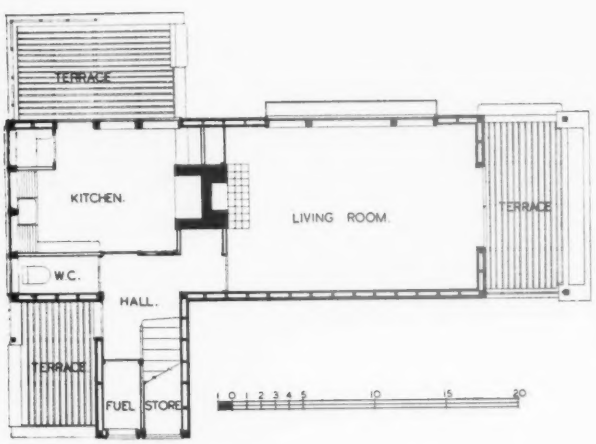
SITE — *On the wooded estate of the White House, Woodford Green, Essex.*

PLAN — *The kitchen-scullery is large enough to accommodate the family for meals; the terrace adjoining is for open-air meals. Beneath the staircase is a bicycle or pram store approached from outside the cottage, and a fuel store. A small wash-house, placed away from the cottage, contains a coke fuel copper.*

CONSTRUCTION—*Concrete foundations and raft; 9 in. brick walls, 2 ft. high and brick chimney stack. Walls are 4 by 2 British Columbian pine studs, fixed at 18 in. centres, covered externally with $\frac{3}{8}$ in. rough deal boarding fixed diagonally, waterproof building paper, and Western Red Cedar weatherboarding, fixed horizontally. Internally, the wall surface is $\frac{3}{8}$ in. rough deal boarding fixed horizontally to take the following finishing materials: Living room, $\frac{1}{4}$ in. British Columbian pine faced plywood; kitchen, bathroom and w.c., asbestos cement sheets, painted; bedrooms, landings and all ceilings, $\frac{1}{4}$ in. building board with butt joints emphasized by slight V cut; staircase and hall, British Columbian pine, fixed vertically and V jointed.*

The photographs show: left, the garden front; below, the entrance doorway.

FIRST FLOOR PLAN



GROUND FLOOR PLAN

B. A. LE MARE AND A. E. PROSKAUER

CONTRACT PRICE, *£800. Price per ft. cube, 1s. 4d.*

SERVICES — *Coal fires in living room and two bedrooms; coal fuel stove for cooking and hot-water service; panel heater in living-room ceiling; one radiator in each of the two bedrooms without fireplaces. Plumbing in copper. For list of general and sub-contractors, see page 612.*

The photographs show: top and left, the living room; right, the staircase.

SOCIETIES AND INSTITUTIONS

SMOKE ABATEMENT SOCIETY CONFERENCE

Some extracts from papers read at the annual conference of the National Smoke Abatement Society, held at the Science Museum, South Kensington, from October 14–17, are printed below.

Dr. Margaret Fishenden, speaking on "The Domestic Smoke Nuisance," said: "Perhaps it would help to solve the smoke problem if we could be brought to see the absurdity of some of our present habits, such as when heating our own bath water we are as likely as not covering our neighbour in smuts.

"After centuries of ineffective effort, we might reasonably infer that the smoke problem is inherently a difficult, or even an insoluble, one; but this is not so. There are no insuperable difficulties in preventing smoke, but, because we need heat in so many different places and for so many different purposes, there are a great many separate small problems to be tackled, rather than any single vast all-embracing one. The prevention of smoke lies essentially in using the right fuel for the right purpose, although in some cases this might mean a slightly increased cost.

"Smoke abatement enthusiasts often assert that coal grates should be abolished by law, but this would not be feasible except over a long period of years. Forty million tons of raw coal are burned annually in our domestic grates, which is far more than the 25 to 30 million tons treated by gas works and electricity stations together. To replace this domestic coal by gas and coke the capacity of the existing gas works would have to be trebled. The use of alternative methods of heating must be given every encouragement, but in the meantime something must be done to reduce the smoke emission from coal grates."

Mr. Noel Carrington said that the time had come to demand smoke abolition, not smoke abatement. Now that it was no longer necessary to pollute the air, it should be made a crime to do so.

Mr. Carrington said that with the advent of coal to our cities as a fuel the nuisance was felt to be intolerable. Elizabeth, James I and other monarchs issued law after law to forbid the use of coal. John Evelyn, the diarist, complained bitterly of the damage that smoke did to gardens and was led to advocate for the first time a green belt round London. All the legislation was abortive and the Englishman became accustomed to smoke and fogs. He even came to be rather proud of it for it showed what stuff we were made of that we could breathe such air and yet rule half the world. Then, instead of seeking to end it, we sought compensations. Medical science had had to devote much research to diet that would compensate for the deficiency of sun. Surely there was something a trifle ridiculous in our solemnly taking as medicine what was once man's natural heritage. Even more pronounced was the passionate pursuit of sunshine on brief holidays and at week-ends, the exposure and bronzing for days or weeks at a time and the movement which had brought into being the whole industry of road-houses, swimming pools and cruising.

The impulse which had driven nearly all who could to move their homes from the cities to dormitory suburbs or smaller towns where the air seemed comparatively pure, had resulted in a hybrid landscape that was by no means beautiful.

This centrifugal tendency had been matched by a decay of the civic spirit. The wealthier classes for the most part no longer inhabited the cities in which they worked.

Sir Arthur Hill, director of the Royal Botanic Gardens, Kew, described the serious damage caused by polluted atmosphere to the plants under his charge. "Every foggy morning," he said, "bushels of healthy looking leaves are gathered up in the Palm House and Temperate House. Many kinds of begonias become defoliated in a night and the leaves of others become burned before they fall off. The buds and flowers of begonias fall off and the buds of certain orchids, which begin to open in November, turn yellow, then black, and fall off without opening. These flowers should always provide a beautiful display at Kew at a time when there are few other flowers, if satisfactory provision can be made to prevent them being damaged by atmospheric pollution."

Sir Arthur added that the experiments carried out at Kew last winter showed that the principal cause of this damage was the sulphuric acid in the smoke. The only way in which vegetation could ultimately be saved from the effects of pollution was to prevent these poisonous substances from being liberated into the atmosphere. At Kew the sooty deposits on the glasses were so sticky that rain had little effect upon it and it was necessary to have the glasshouses scrubbed by hand, often two or three times during the winter, a costly and somewhat dangerous operation, especially in the case of the Temperate House, with its two acres of glass roof.

It was noteworthy that in districts round London increasing difficulties were being encountered by horticulturists owing to industrial development, and nurserymen were compelled to move further into the country. The difficulty of cultivating conifers at Kew had necessitated the starting of a collection of these trees in Kent.

DEVON AND CORNWALL ARCHITECTURAL SOCIETY

Mr. Percy Thomas, P.R.I.B.A., speaking at the annual dinner of the Devon and Cornwall Architectural Society, held recently at Exeter, urged the necessity for a higher standard in design and construction. Probably no professional society in the country had a finer system of education than that of the R.I.B.A., but he was not so sure that that was generally recognized and known throughout the country. Architecture and building had become so complicated that a haphazard method of education would never fit a man for the strenuous and exacting career of an architect in these days.

"Building," he said, "is becoming much more scientific and we have to decide whether the architect is simply to be an off-shoot of a builder-cum-engineer organization, or whether he is going to take his rightful place as the master-builder and the leader of the building industry. I think the next few years are going to decide that."

Turning to the question of design, Mr. Thomas said his view was that one should keep an open mind. As far as he could see the trouble was that nearly all the modernists were young men who had no use for anything done before their time, and nearly all the traditionists were old men who had no use for anything that was new. He felt that between the two was the happy medium.

Mr. E. Kemeys-Jenkin, F.R.I.B.A. (President of the Society), discussed the proposed provision of new civic buildings at Exeter, and drew a comparison between that city and Swansea, which recently provided public buildings from the designs of Mr. Percy Thomas at a cost of over £340,000. Previously, various departments of the Swansea Council were housed in different buildings, and the town felt that it was losing ground as a large centre because of the lack of civic accommodation.

He stated that the rate at Swansea was 15s. 6d. in the £ compared with 10s. at Exeter, and the rateable value per head of the population was £6 8s. compared with Exeter's £9 10s.

Unemployed at Swansea numbered 30 out of every 100 insured workers compared with only five out of every 100 at Exeter. Exeter, therefore, was in a much better position than Swansea, yet the Welsh town, with all its disadvantages, courageously tackled the problem and the expense was being justified by results.

"I hope," concluded the President, "that when the next annual dinner of this Society is held in Exeter the new civic buildings will be well on the way to completion."

BIRMINGHAM AND FIVE COUNTIES ARCHITECTURAL ASSOCIATION

Mr. Alfred Hale, F.R.I.B.A., in the course of his presidential address to the Birmingham and Five Counties Architectural Association at its first general meeting of the session held recently at Birmingham, said modern civilization was more and more dependent upon a scientific solution of its problems. We must look ahead and plan; we moved too fast for the old methods of muddling through. Times were changing. The problems of town planning, slum clearance, control of elevations, ribbon development and traffic control had been brought about mostly through lack of planning and foresight in the past. We must learn to plan not for immediate requirements alone, but with a view to making developments possible, not too difficult and not too expensive in the future. Our streets were full of signs, kiosks, standards, studs, beacons, advertisements, notices of traffic lights; the faces of buildings were disfigured with advertisements, and there were barriers on the footways. All these, together with the noise of traffic and petrol fumes, made our thoroughfares most bewildering and decidedly unpleasant. It was freedom gone mad, and it called loudly for control.

Mr. Hale pointed out that architects

could render valuable service to the community in many of these matters when permitted. The percentage of buildings laid out and designed by qualified architects was, he said, small, and although the employment of architects was increasing and our city authorities were setting a good example, large numbers of small estates, small houses and factories were planned and erected annually without their aid, to the detriment not only of the district but of the future owner and occupier. Panels of architects in the counties of Warwick, Worcester and Hereford were assisting the authorities in the control of elevations, and he hoped the city authorities would see the advantage of, and agree to, a panel of architects being formed in Birmingham to deal with work other than that done by the advisory panel of the Civic Society.

ARCHITECTURAL ASSOCIATION

Following is a list of general meetings and exhibitions to be held at the Architectural Association during the new session. The meetings will commence at 8.15 p.m.

MEETINGS.—*November 24:* "The A.A. Excursion to Czecho-Slovakia." By Messrs. Verner O. Rees, F.R.I.B.A., and J. A. Mackay.

January 5: An Evening to be arranged by the Students' Club.

January 16: "The Philosophy of Modernism—a Criticism." By Mr. Hope Bagenal, D.C.M., A.R.I.B.A.

February 23: "Questions and Answers on the New Buildings for the University of London." By Mr. Charles Holden, F.R.I.B.A.

March 16: "Impressions of America." By Mr. Percy Thomas, O.B.E., P.R.I.B.A.

April 27: "Timber in Architectural Design." By Mr. R. Furneaux Jordan, A.R.I.B.A.

May 25: "Designing for the Films." By Mr. L. P. Williams, A.R.I.B.A.

EXHIBITIONS.—*Until November 6:* Annual Exhibition of Watercolours, Etchings and other Drawings by Members.

November 9-November 20: Exhibition of Drawings and Paintings by Students in English Schools of Architecture. Organized by the A.A. Students' Art Club.

November 24-December 12: Exhibition of Photographs taken by Members of the A.A. Excursion to Czecho-Slovakia.

January 26-February 13: Annual Exhibition of Photographs by Members.

NATIONAL FEDERATION OF BUILDING SOCIETIES

At a meeting of more than one hundred representatives of the smaller building societies, whose total assets are valued at more than £55,000,000, held recently in London, it was unanimously agreed by supporters of the non-assenting group of building societies in the recent winding-up of the National Association of Building Societies to establish a National Federation of Building Societies. Membership of the Federation is to be open to those building societies which were formerly members of the late National Association of Building Societies and to any other building society approved by the committee.

The committee of representatives which had been watching the interests of the non-assenting group was asked to act as the first committee of the new organisation..

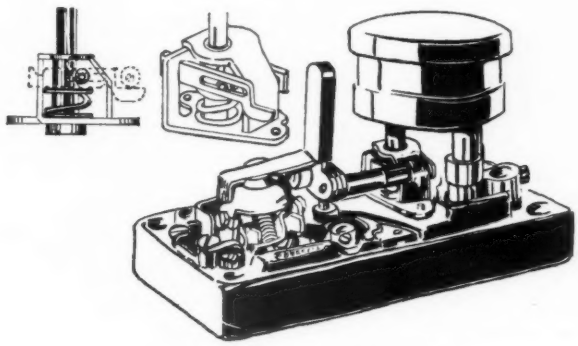
LIGHTING SERVICE BUREAU

On October 15 the Chairman and Members of the Schools Committee of the Board of Architectural Education were invited to visit the Lighting Service Bureau of the Electric Lamp Manufacturers' Association to discuss lighting education in schools of architecture.

Among those present were the following: Messrs. James McGregor, F.R.I.B.A., Edinburgh College of Art; Cyril Knight, M.A., A.R.I.B.A., B.Arch, University College, Auckland, N.Z.; Gordon Hake, F.R.I.B.A., R.W.A., Bristol; W. B. Edwards, M.A., F.R.I.B.A., Armstrong College, Newcastle; H. S. Blakey, A.R.C.A., Municipal College, Southend; and J. Stockdale-Harrison, F.R.I.B.A., of Leicester, representing the R.I.B.A. Council.

They were met by Mr. W. J. Jones, M.Sc., Manager, and Mr. R. O. Sutherland, A.R.I.B.A., the Architect to the Bureau. After tea Mr. Jones gave a rapid survey of the latest developments in the electric lighting industry, demonstrating the electric discharge lamp to illustrate how light sources were changing.

Following the speech by Mr. Jones a discussion was held, during which suggestions for encouraging and facilitating the promotion of lighting education in architectural schools were raised. One of these was that a two-day conference for school lecturers, similar to that held early this year, should be arranged early in 1937.



TRADE NOTES

[*EDITED BY PHILIP SCHOLBERG*]

Electrical Accessories

A WEEK or two ago I complained of the unnecessary noise made by Q.M.B. switches, and my remarks have called forth a protest from Mr. J. B. Tucker. Here is an extract from his letter: "Thanks to the recent rapid extension of the use of alternating current as compared with direct current, there is now no excuse for noisy switches. Technically, the use of a quick-break mechanism on A.C., especially for domestic loads, is fundamentally much inferior to the use of a slow break. We have available 5 and 15 amp. switches and 15 amp. switch sockets which incorporate this slow break mechanism for use on A.C. only. The break is also short, and acts against a certain amount of spring resistance while being operated. Such switches can be operated practically noiselessly."

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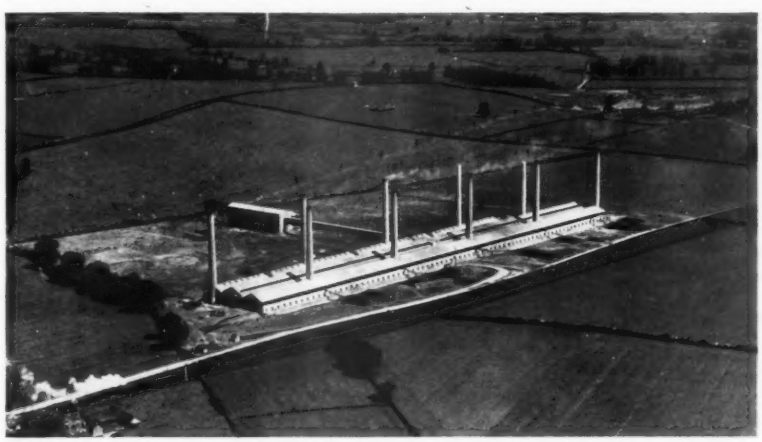
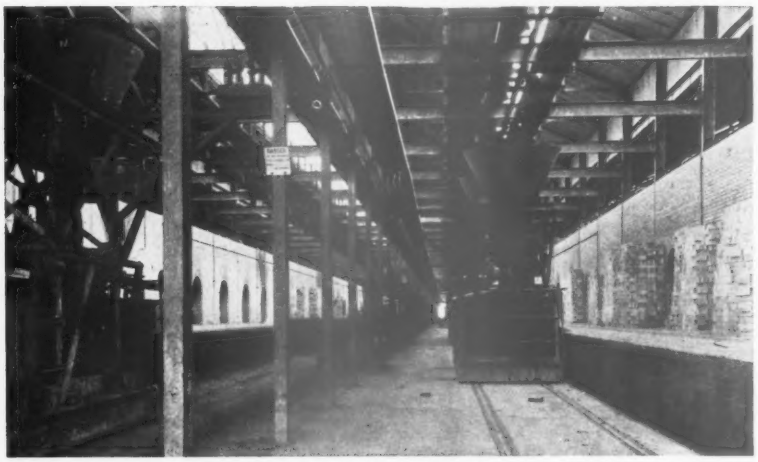
So that is more or less that. The sample switch sent to me is perfectly normal in use, except that the spring resistance is



An aerial view of the Marston Valley Brick Company's new works at Ridgmont. *(See note on page 612.)*



The brick press track at Ridgmont: to the right and left are the kilns, above, the conveyors feeding the ground material to the press hoppers.

against switching *off* instead of switching *on*, so that the feel of the switch is a little odd to begin with, though this, of course, is of no consequence whatever. The result, with the smallest amount of care, is perfectly quiet.

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Incidentally, tests carried out at Birmingham University show that a slow break for A.C. circuits causes considerably *less* arcing, giving rather less than half the temperature rise of quick break.

Interlocking Sockets

Mr. Tucker's firm has also recently introduced an interlocking switch socket with a mechanism that will grip any B.S.S. plug, without having to rely, as heretofore, on specially shaped pins. The locking mechanism is more or less explained in the sketch at the head of these notes, a spring controlled roller gripping the pin in much the same way as the free-wheel of a car; the switch lever is also interlocked with the plug so that it cannot be switched on unless the plug is home, and, since the switch itself is of double pole type, there is no need for a shutter over the sockets.

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The sockets are in themselves interesting, as they are made in two entirely separate halves, not of a single partially slit tube, the two halves being held together by a band. Any slight variation in pin diameter, or lack of parallelism, can therefore be accommodated, and this keeps down any tendency towards heating.

Fletton Manufacture

I was taken a week or so ago to the official opening of the Marston Valley Brick Company's new works at Ridgmont, where production will ultimately reach a figure of 150 million bricks a year.

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The feature of the works which interested me most was the general layout, which is arranged so that most of the work is done by conveyors. From the grinding mills, seen at the top left of the illustration on page 611, the ground and screened clay is taken by conveyor straight to the presses, which themselves move, tram fashion, to the input side of the selected kiln chamber. The clay is removed from the conveyors by adjustable ploughs at each press, and similar but slightly modified ploughs turn the clay over at strategic points to ensure uniformity of mix, apparently one of the essential points in fletton brickmaking.

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An interesting and informative day. Anybody else who wants to go and look is invited by the manufacturers to do so.

Addresses

J. H. Tucker & Co., Ltd., King's Road, Tyseley, Birmingham 2.

The Marston Valley Brick Co., Ltd., Lidlington, Beds.

Messrs. Stephens and Carter were given last week as the manufacturers of a patent loft ladder. This firm acts as agent only, the manufacturers being the J. B. Gravity Ladder Co., Ltd., 64, Station Road, West Croydon.

Manufacturers' Items

The Chimney Construction Co., Ltd., specialists in the design and erection of chimneys, boiler-houses and boiler settings, have removed to new offices at Stourhurst, Stourbridge, Worcs. The telephone number, Stourbridge 5623, remains as before.

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Protected metal is becoming more and more the standard material for factory roofs where strength and permanence without upkeep cost are important considerations. One of the largest contracts has been carried out in Cellactite, the well-known steel-cored corrugated sheeting, which has been used both for roofing and vertical cover on industrial buildings covering a floor area of approximately 10 acres in Nottingham. That the sheeting area is 315,000 sq. ft., with 3¼ miles run of Cellactite ridging and flashing, gives some idea of the magnitude of the job, which has just been completed, including the stripping of old, perished material and its replacement with Cellactite, to say nothing of extensive glazing, in the short time of 4½ months by Messrs. Cellactite and British Uralite, Ltd., Lincoln House, High Holborn, London, W.C.1.

BUILDINGS ILLUSTRATED

CONVERSION OF OLD LIBRARY AND SCHOOL BUILDING, CAMBRIDGE UNIVERSITY (pages 593–598). The general contractors were Coulson and Son, Ltd., and the principal sub-contractors and suppliers included: Redpath, Brown & Co.,Ltd., steelwork; J. A. King & Co., Ltd., hollow block floor; Stevens and Adams, Ltd.,oak flooring; Carter & Co., Ltd., tiling; Newalls Insulation Co., Ltd., acoustic materials; Wainwright and Waring, and C. E. Welstead, Ltd., metal windows; Constable & Co., leaded lights and repairs; Fram Reinforced Concrete Co., Ltd., cork tile floors; G. Jackson and Sons, Ltd., ornamental plasterwork; C. J. Whitaker, stone carving; J. Wontner Smith, Gray & Co., Ltd., heating and ventilation; Waring, Withers and Chadwick, electrical installation; J. and E. Hall, Ltd., lifts; Dent and Hellyer, Ltd,, plumbing and drainage; N. F. Ramsay & Co., Ltd., door furniture, etc.; Best and Lloyd, Ltd., Allom Bros., Ltd., C. Harvey & Co., and Osler and Faraday, Ltd., light fittings; Shanks & Co., Ltd., sanitary fittings; Bromsgrove Guild, Ltd., and the Cashmore Art Workers, Ltd., metal balustrading; J. P. White and Sons, Ltd., bookcases and general joinery; D. Burkle and Son, Ltd., tables and office desks; Gordon Russell, Ltd., chairs; North of England School Furnishing Co., Ltd., lecture room seating; Eric Munday, Ltd., and Daymonds, Ltd., lettering; and N. P. Martin, tables and wood carving.

TIMBER HOUSE AT WOODFORD GREEN, ESSEX (pages 599–600, 608–609). The general contractors were Sheppard Bros.,and the principal sub-contractors and suppliers included: Rippers, Ltd., all timber construction and joinery; Ruberoid Co., Ltd., dampcourses and special roofings; Triplex Grates, stoves; Troughton and Young, Ltd., Ultralux electric light fixtures; Pryke and Palmer, Ltd., sanitary fittings.

ALMSHOUSES AT GEDLING, NOTTS (pages 605–607). The general contractors were Greenwoods (Mansfield), Ltd., and the principal sub-contractors and suppliers included: Williamson Cliff, Ltd., bricks and hand-made sandfaced tiles; F. Evans and Sons, York stone paving and Bulwell stone walling; J. A. King & Co., Ltd. partitions (plaster slab); Pearson Bros. (Nottingham), Ltd., grates; Attenborough Turpin, electric wiring, electric light fixtures and bells; Cooper and Berry, plumbing; Parker, Winder and Achurch, Ltd., sanitary fittings; Alfred Brown & Co., Ltd., door furniture; Crittall Manufacturing Co., Ltd., casements; Goodacre, Glover and Butler, metalwork; V. Pilmore, shrubs and trees; Walter Macfarlane & Co., Ltd., ornamental C.I. shutters.

THE WEEK'S BUILDING NEWS

LONDON AND DISTRICT (15 Miles Radius)

ACTON. *Flats.* Mr. E. W. Palmer is to erect 160 flats in two-storey blocks near Tudor Gardens, Acton.

ACTON. *Flats.* A revised scheme has been prepared by Messrs. J. Stanley Beard and Bennett, architects, for the erection of 72 flats in three blocks, six-storeys high, in Bollo Lane, Acton.

BRIXTON. *Flats.* Work will commence immediately on the erection of 400 flats at Loughborough Park for Guinness Trust. Mr. Edward Armstrong, F.R.I.B.A., 19 Hobart Place, S.W.1, is the architect, and Messrs. C. Miskin and Sons, Ltd., are the contractors. The amount of the contract is £219,850.

COULSDON. *Welfare Centre.* Coulsdon U.D.C. is seeking premises at Sanderstead for the purpose of a child welfare centre.

COULSDON. *Houses.* Plans passed by Coulsdon U.D.C.: 23 houses, Chaldon Way, Mr. P. D. Sullivan; 26 houses, Chaldon Way, Messrs. Sinden, Tompkins and King; 6 houses, Thornton Crescent, Ideal Homes, Ltd.; 7 houses, Cearn Way, Mr. Horsman, W. J. Llewellyn; 6 houses, Chaldon Way, Mr. King H. Snelling; 6 houses, The Glade, Messrs. Hornett and Collis; 6 houses, Lyndhurst Road, Mr. W. H. Gorham; 5 houses, The Netherlands, Mr. J. Fidler.

PURLEY. *Flats.* Plans have been prepared by Messrs. Stodart & Co., for the erection of a block of 42 flats on land at the junction of Whytecliffe, Christchurch and Brighton Roads, Purley.

STOKE NEWINGTON. *Flats.* The work has now commenced on the erection of the re-housing schemes—74 flats for the L.C.C.—at Glebe Place. Mr. Edward Armstrong, F.R.I.B.A., 19 Hobart Place, S.W.1, is the architect, and Messrs. Higgs and Hill, Ltd., the contractors.

WIMBLEDON. *Cinema.* Wimbledon Corporation has approved plans in respect of the Odeon Cinema, to be erected in Worple Road.

SOUTHERN COUNTIES

SWINDON. *Houses.* Plans passed by Swindon Corporation: 10 houses, Westbrook Road, Mr. A. J. Colborne.

MIDLAND COUNTIES

CHESTERFIELD. *Houses.* Chesterfield Corporation is to erect 12 houses at Thornfield, such houses to be let at economic rents to employees of the Transport department.

CHESTERFIELD. Central Baths. Chesterfield Corporation has decided that the new central baths be erected on the site already acquired at Rose Hill and that the design to be adopted be based upon the provision of one swimming pool of dimensions 110 ft. by 45 ft.

CHESTERFIELD. *Houses.* Plans passed by Chesterfield Corporation: Four houses, Walton Road, Messrs. Robinson and Sons, Ltd.; four houses, Swaddale Estate, Birmingham Road, Messrs. Revill and Beresford; six houses, off Highfield Road, Mr. A. Heath; two bungalows and five houses, Chain Bar, Newbold Road, Mr. F. Durham; six houses, Somersall Park Road, Mr. J. W. Revill.

HEANOR. *Houses.* Plans passed by Heanor U.D.C.: Four houses, off High Street, Codnor, Mr. A. Radford; six houses, Upper Dunstead Road, Mr. J. Wildman; six houses, Lacey Fields Road, Messrs. Buxton Bros.

ISLE OF MAN

DOUGLAS. *Houses.* Plans passed by Douglas (I. of M.) Corporation: six houses, Glencrutchery Estate, Messrs. McKibbin and Kewley.

NORTHERN COUNTIES

BLACKPOOL. *Shops.* Blackpool Corporation has approved plans by Mr. J. W. Anderson for the erection of eight shops on the Haddle House Estate.

DURHAM. *Nurses' Homes.* Durham C.C. Assistance Committee recommends that nurses' homes should be provided at Durham, Easington, Lanchester and Chester-le-Street, at a cost of £19,000.

ECCLES. *Houses.* Plans passed by Eccles Corporation: 18 houses, Gee Lane, Messrs. Wilham Estates, Ltd.

HULL. *Branch Library.* Hull Corporation is to select a site for a branch library on the Derringham Bank Estate.

HYDE. *Houses.* Plans passed by Hyde Corporation: 124 houses, King Edward Road and Marlborough Road, Messrs. Dean and Whipp; 26 houses, off Victoria Street, Newton, Mr. George Clayton; four houses, Dukinfield Road, Mr. J. Williams.

LEEDS. *Library.* Leeds Corporation has obtained sanction to borrow £11,586 for the erection of a branch library at Sheepscar.

LIVERPOOL. *Nurses' Homes and Extensions.* Liverpool Corporation is to extend the Fazackerley Isolation Hospital and erect a nurses' home at a cost of £45,430.

MANCHESTER. *Flats.* Manchester Corporation is to obtain tenders for the erection of 72 residential flats at Wellington Street, Gorton.

MANCHESTER. *Houses.* Manchester Corporation is to erect 364 houses and flats at Crossacres, Wythenshawe Estate, by direct labour.

MANCHESTER. *Flats.* Manchester Corporation is to erect flats at Gorton (Wellington Street) at a cost of £35,912.

MORECAMBE. *New Grammar School.* Morecambe Corporation has approved plans in connection with the new grammar school on the former site of the Morecambe golf links.

NEWCASTLE-UNDER-LYME. *Gas Holder.* Newcastle-under-Lyme Corporation is to construct a gasholder at a cost of £25,253.

NORFOLK. *Hospital.* Norfolk C.C. has had an estimate from the consulting engineer (Mr. E. G. Phillips), £11,000, for the engineering services in connection with the new hospital at East Dereham.

NORFOLK. *Hospital.* Norfolk C.C. recommends the tender of Messrs. J. Young and Son, Ltd., £27,936, for the erection of a hospital at East Dereham.

OLDBURY. *Houses.* Oldbury Corporation has approved a revised layout for 210 houses to be erected on the Holt Farm Estate.

PONTEFRACT. *Houses.* Plans passed by Pontefract Corporation: 10 houses, Beech Grove Estate, Halfpenny Lane, Mr. T. Asquith; 34 houses, Portland Avenue and St. Michael's Avenue, Featherstone Lane, Messrs. Leach Bros.

PONTEFRACT. *Houses.* Pontefract Corporation has accepted the following tenders for the erection of 16 houses for aged persons on the Horsefair site: Messrs. Gibson Bros., joiner, £789 9s. 1d.; Messrs. Brown and Lodge, builder, £1,943 10s. 1d.; Messrs. Stewart Bros. and Sons, tiler, £297; Mr. C. Smurthwaite, plumber, £482; Mr. J. Shaw (Pontefract), plasterer, £145 11s. 6d.; Messrs. A. Gross and Sons, painter, £104 10s. 4d.

SCARBOROUGH. *Swimming Bath.* Scarborough Corporation has considered proposals for the layout of the site of "Woodend" in the Crescent for the erection of a public swimming bath, and the borough engineer submitted sketch plans he had prepared in connection therewith. He was instructed to prepare a suitable large-scale model in order that the General Committee may consider the scheme.

SCARBOROUGH. *Houses.* Plans passed by Scarborough Corporation: 24 flats, King Street, Messrs. P. Chase Gardener & Co.

SCARBOROUGH. *Electricity Showrooms.* Scarborough Corporation has approved a scheme for converting premises in Hope Street, Filey, into electricity showrooms, etc.

SHEFFIELD. *Houses.* Sheffield Corporation has accepted the tender of Messrs. J. Laver and Sons, Ltd., £77,135, for the erection of 186 houses and 52 flats at Parson Cross Estate.

SOUTH SHIELDS. *Houses.* South Shields Corporation has approved a scheme prepared by the borough engineer for the erection of 650 houses at Horsley Hill, at a total estimated cost of £227,800.

SOUTH SHIELDS. *Hospital.* South Shields Corporation has approved an amended site for the proposed maternity hospital on the south-east side of the Harton Hospital.

STRETFORD. *Houses.* Plans passed by Stretford Corporation: 10 houses, Moss Park Road, for Mr. H. Grinshaw; 36 houses, Norwich Road, for Messrs. A. Locke, Ltd.; three houses, Urmston Lane, for Messrs. J. Maunders and Sons.

STRETFORD. *Elementary School.* Stretford Education Committee has obtained sanction for a loan of £22,648 for the erection of an elementary school at Lostock.

TODMORDEN. *Houses, etc.* Plans passed by Todmorden Corporation: six houses, Rochdale Road, Walsden, Mr. Ronald Sutcliffe; Abraham Ormerod Medical Centre at Ridgefoot for Trustees.

WORKINGTON. *Houses.* Workington Corporation recommends the following tenders for the erection of 84 houses on the Frostoms and Westfield Estates: Excavator, brick, etc., work, carpenter and joiner work, plaster work, road and sewer work, Messrs. Thos. Armstrong, Ltd.; plumber work, Messrs. Rowells, Ltd., Newcastle; slater work, Mr. W. V. Pratt; painter work, Mr. K. Hodgson.

WORKINGTON. *Houses.* Plans passed by Workington Corporation: Four houses, Wordsworth Street, Messrs. J. W. Douglas; four houses, High Harrington, Messrs. Carruthers and Martin.

WORKINGTON. *Slaughterhouses.* Workington Corporation is considering plans by the borough surveyor for new slaughterhouses at a cost of £13,000.

YORK. *Council School.* York Education Committee has accepted the tender of Messrs. Birch and Sons, Ltd., £21,816, for the erection of the Derwent junior and infants' council school.

YORK. *Library.* York Corporation is to complete the library building according to revised plans at an estimated cost of £16,000.

SOUTH-WESTERN COUNTIES

SWANSEA. *Cinema.* Messrs. W. Owen Bond and Son have submitted plans to the Swansea Corporation for the erection of a cinema in High Street.

SWANSEA. *Houses.* Swansea Corporation has accepted the tender of Mr. George Evans, £37,391 11s. 8d., for the erection of 104 houses, and of the borough architect, £39,995 18s. 9d., for the erection of 114 houses on the Townhill Estate.

SCOTLAND

GLASGOW. *Baths.* Glasgow Corporation has accepted the following tenders for the erection of baths at Govan: Excavation brick, mason, ferro-concrete and steel works, Messrs. A. M. MacDougall & Co., £8,440 1s. 4d.; carpenter, joiner and ironmongery works, Messrs. M. Simpson & Co., Ltd., £2,892 18s. 1d.; glazier work, Messrs. A. S. Wright & Co., Ltd., £365 17s. 10s.; slater work, Messrs. P. White & Co., Ltd., £140 5s. 1d.; plumber work, Messrs. Arch. Low and Sons, Ltd., £3,461 4s. 5d.; plaster work, Messrs. J. C. M'Intyre & Co., Ltd., £153 6s. 2d.; tile and terrazzo work, Messrs. John Youden and Son, Ltd., £1,233 16s. 9d.; asphalt work, The Scottish Speedwell Co., Ltd., £369 5s. 1d.; engineering work, Messrs. Hugh Twaddle and Son, Ltd., £7,060 7s. 8d.

WALES

GLAMORGANSHIRE. *Elementary School.* Glamorganshire Education Committee is to erect an elementary school at Panteg at a cost of £16,747.

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_2	Abingdon ...	S. Counties	1 5	1 0½
A	Accrington ...	N.W. Counties	1 6½	1 2
A_2	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_2	Appleby ...	N.W. Counties	1 3	11½
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 5	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_3	Colchester ...	E. Counties	1 5½	1 1½
A	Colne	N.W. Counties	1 6	1 1½
A_3	Colwyn Bay ...	N.W. Counties	1 5½	1 1½
A_1	Consett ...	N.E. Coast	1 6	1 1½
A_3	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	Deal	S. Counties	1 4	1 0
A_2	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_2	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_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_1	Glamorgan-shire, Rhondda Valley District	S. Wales & M.	1 6	1 1½
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 ...	Mid. Counties	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_2	Kendal ...	N.W. Counties	1 5	1 0½
A_2	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_2	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 Shields...	N.E. Coast	1 6½	1 2
A	North Staffs ...	Mid. Counties	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_2	Pembroke ...	S. Wales & M.	1 3	11½
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_2	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	Teeside 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_2	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	3½
Lorryman	,,	1	5½
Crane Driver	,,	1	7
Watchman	per week	2	10	o

MATERIALS

EXCAVATOR AND CONCRETOR

		£	s.	d.
Grey Stone Lime	per ton	2	2	0
Blue Lias Lime	,,	1	18	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.	4" d.	6" s.	6" 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.
Flettons	per M.	2	12	0
Grooved do.	,,	2	14	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	14	0
,, Wirecuts	,,	7	12	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
,, African	,, ,,		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
,, 8"	,,	1	1	6
,, 1"	,,	1	2	0
,, 1¼"	,,	1	5	0
,, 1½"	,,	1	10	0
Deal matchings, ¾"	,,		14	0
,, ¾"	,,		15	6
,, 1"	,,	1	4	0
Rough boarding, ¾"	,,		16	0
,, 1"	,,		18	0
,, 1¼"	,,	1	6	0

Plywood, per ft. sup.

Thickness	¼"			⅜"			½"			¾"			1"		
Qualities	A	B	BB	A	B	BB	A	B	BB	A	B	BB	A	B	BB
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	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	–	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"	1"	1½"	2"
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–1½" 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/–	

Discounts

TUBES.

Per cent.		Per cent.	
Gas	65	Galvanized gas	52½
Water	61½	,, water	47½
Steam	57½	,, steam	43½

FITTINGS.

Per cent.		Per cent.	
Gas	57½	Galvanized gas	47½
Water	52½	,, water	42½
Steam	47½	,, steam	37½

		s.	d.
Rolled steel joists cut to length	cwt.	12	9
Mild steel reinforcing rods, ¾"	,,	10	6
,, ,, ½"	,,	10	3
,, ,, ⅜"	,,	10	0

SMITH AND FOUNDER—*continued*

		s.	d.
Mild steel reinforcing rods, ¼"	cwt.	9	6
,, ,, ⅞"	,,	9	6
,, ,, 1"	,,	9	6
,, ,, 1¼"	,,	9	6
,, ,, 1½"	,,	9	6

Cast-iron rain-water pipes of ordinary thickness metal		4" s.	4" d.	4" s.	4" d.
		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		8
Angles	,,	1	7	1	11
Obtuse angles	,,	2	0	2	6
Outlets	,,	1	9	2	3

PLUMBER

		£	s.	d.
Lead, milled sheets	cwt.	26	3	
,, drawn pipes	,,	25	9	
,, soil pipe	,,	28	9	
,, scrap	,,	16	9	
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	0	0
Plaster, coarse	,,	2	15	0
,, fine	,,	4	7	6
Hydrated lime	,,	3	0	9
Sirapite	,,	3	5	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" × 10")	,,				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	1	,, ‡3	9	
,, ,, 45	,,	†3	3	,, ‡4	0	
,, ,, 100	,,	†4	0	,, ‡4	10	
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 ½"	,,				8½ ,, 1	0
Putty, linseed oil	lb.					3

* *Colours, 1d. 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	6	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 0
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 labour, 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
¾″ deal sawn boarding and fixing to joists	Sqr.	1 14 6
1″ ,, ,, ,, ,,	,,	1 17 6
1¼″ ,, ,, ,, ,,	,,	2 3 0
3″ × 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
1¼″ ,, ,, ,,	,,	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
1¼″ 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.	2 0 3
Do. in flashings	,,	2 3 9
Do. in covering to turrets	,,	2 9 3
Do. in soakers	,,	1 14 9
Labour to welted edge	F.R.	3½
Open copper nailing	,,	3
Close ,, ,,	,,	4

		½″ s. d.	¾″ s. d.	1″ s. d.	1¼″ 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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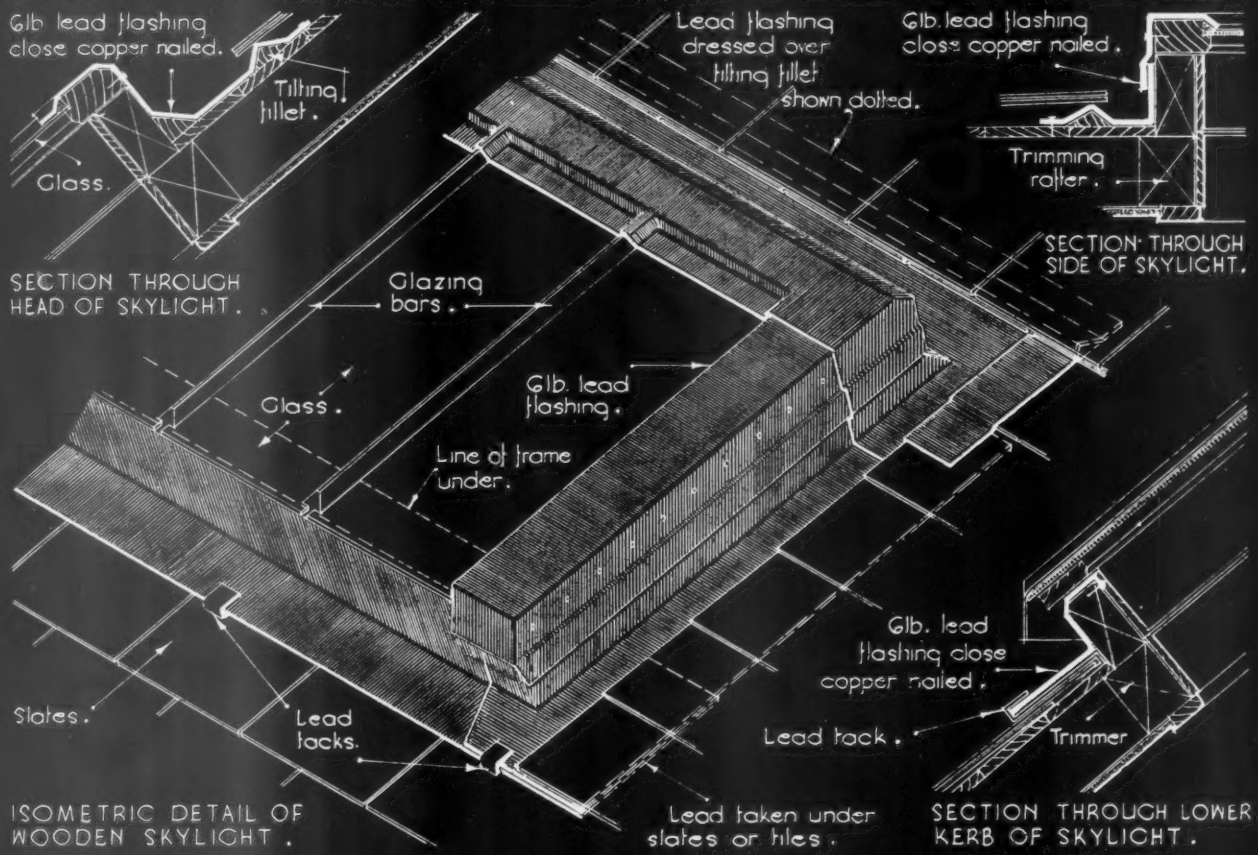
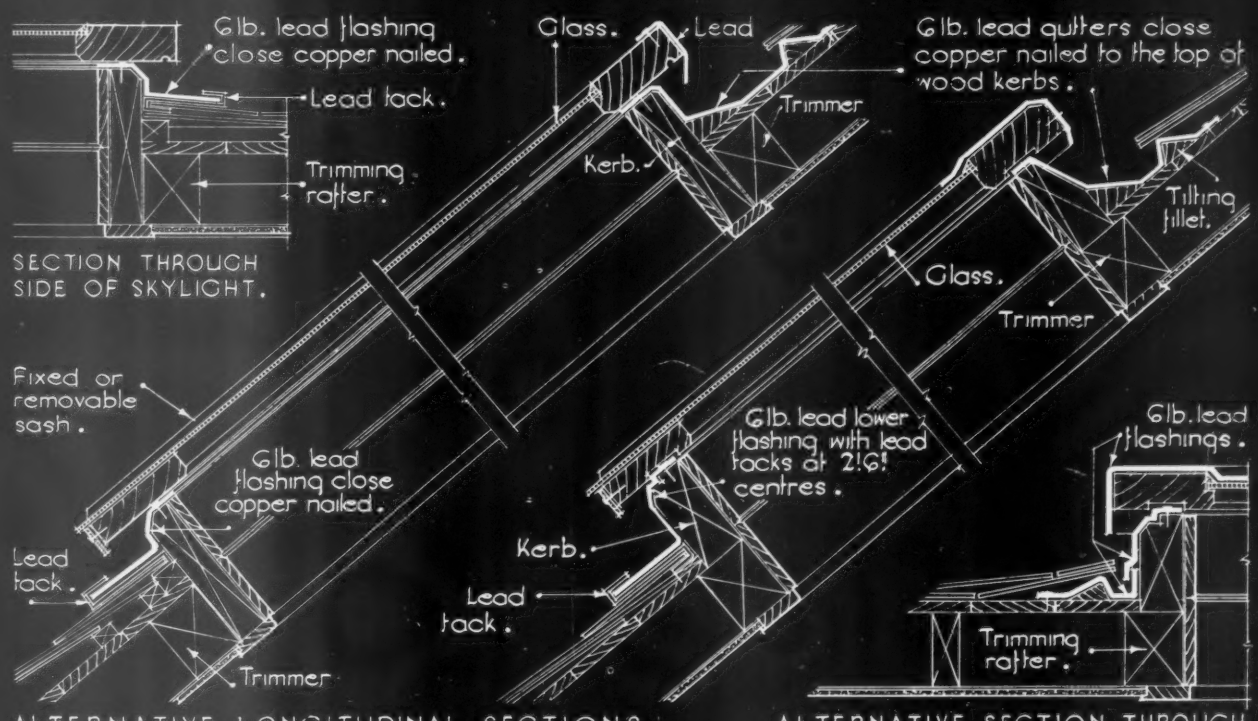
DETAILS OF LEAD FLASHINGS TO A WOODEN SKYLIGHT IN A SLOPING ROOF : SCALE · 1" = 1'0"





Information from The Lead Industries Development Council.

INFORMATION SHEET : LEAD FLASHINGS TO SKYLIGHTS N°27.

SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1 · Olive A. Burnet.

Supplement to THE ARCHITECTS' JOURNAL for October 29, 1936

THE ARCHITECTS' JOURNAL
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INFORMATION SHEET

• 424 •

ROOF GLAZING

Subject : Flashings to Skylights.

This Sheet gives some details of flashing work to wood framed skylights in pitched roofs. Future Sheets will deal with some variations of this flashing work as required for metal framed lights and lights which are set flush with the roof surface.

Fixed Lights :

The main detail, given on the upper part of the Sheet, shows a skylight raised above the plane of the roof surface, framed in wood and close flashed on all sides. This is a method which gives a thoroughly reliable and waterproof job, but which can only be used with fixed lights. The flashing at the bottom of the skylight is formed in one piece of lead ; that over the sides in two pieces ; and the head flashing is in one piece which is carried up under the tiling, over the tilting fillet on the upper side, up over the framing of the skylight, and on to the glass on the lower side. The lead should be beaten down to a close fit over all woodwork and tiles and should be secured where shown with copper nails.

Opening Lights :

The two alternative details given are of methods of flashing which permit the skylight to be hinged on the upper side if required.

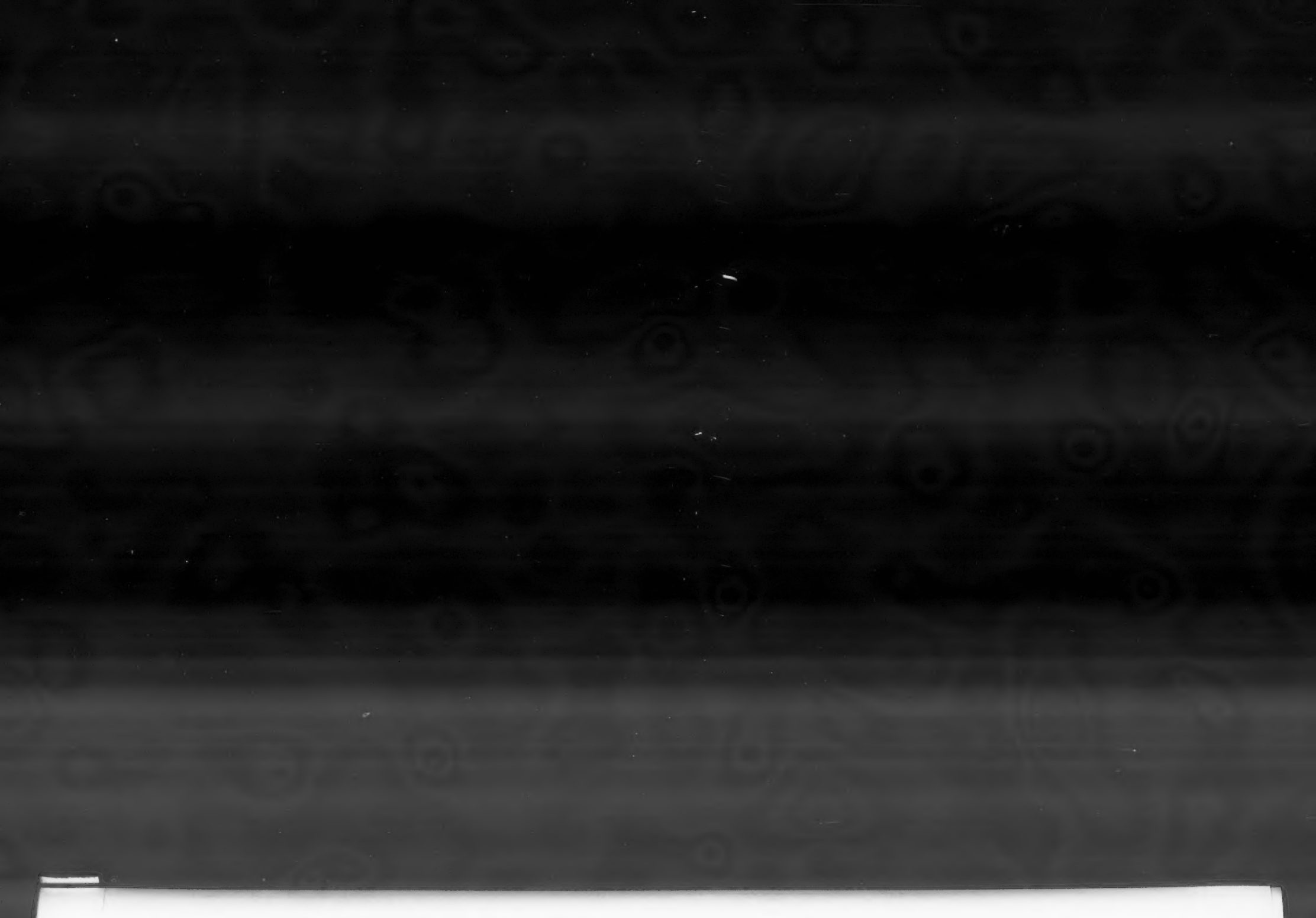
It is especially necessary in these cases to make the trimming timbers or kerb of sufficient depth to raise the skylight well above the plane of the roof surface, since the flashing on the upper side of the skylight forms a gutter into which the pitched roof discharges.

This gutter should generally be made 5 or 6 ins. wide ; it is sometimes made of less width for the sake of appearance, but this should not be done if the gutter is in a position where it is liable to become choked with leaves or other material.

Weight of Lead :

It is recommended that lead flashings of the kind shown on this Sheet should be made of lead of weight not less than 6 lbs. per sq. ft.

Issued by : Lead Industries Development Council
Address : Rex House, 38 King William Street, London, E.C.4
Telephone : Mansion House 2855



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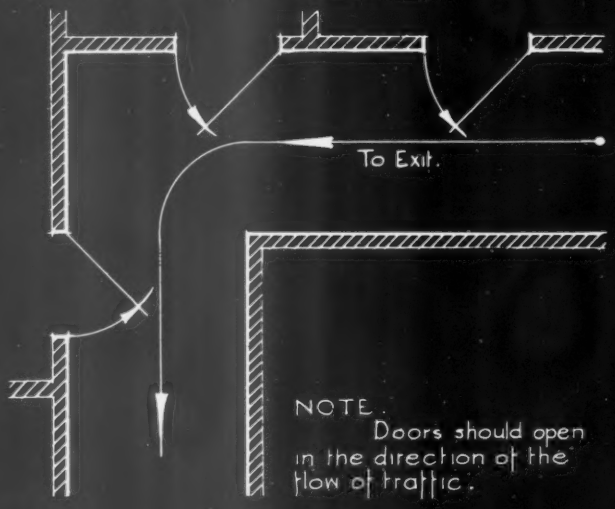
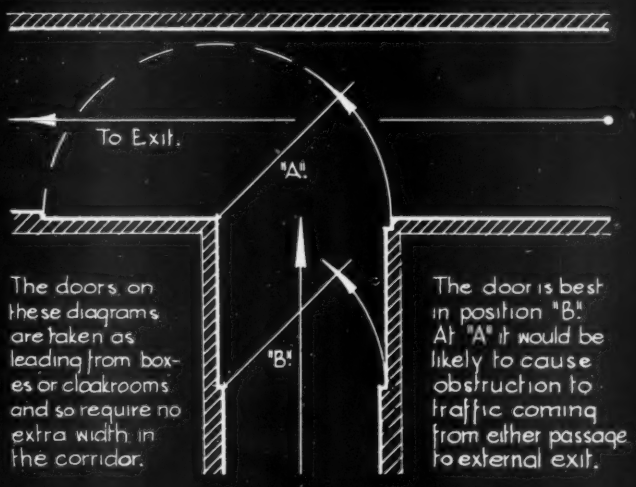
INTERNAL ARRANGEMENTS OF EXITS, CORRIDORS, AND PASSAGES:

PLAN SHOWING EXIT DOORS OPENING INTO A PASSAGE LEADING TO A MAIN EXIT.



PLAN SHOWING EXIT DOORS AT JUNCTION OF TWO PASSAGES.



DIRECTION OF OPENING.

All doors in exitways, and doors used as exits from any part of the building, or leading to the open air, should open in the direction of the exit. When used also as entrance doors they may be arranged to swing in both directions.

FIXING OF EXIT DOORS.

Where practicable, exit doors should be hung in two folds, and should be hinged at the sides.

NOTE.

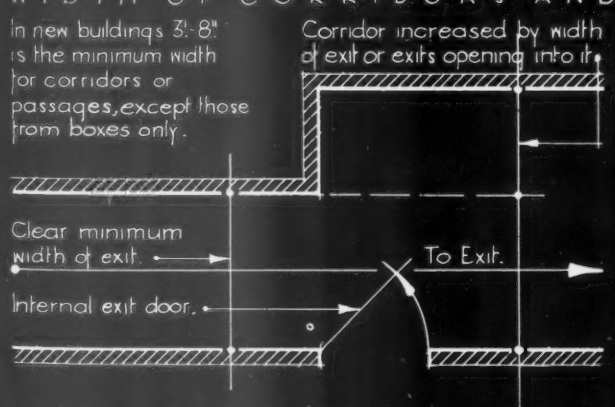
Doors other than sliding doors, opening outwards into a way or corridor, should be hung in such a manner as to be closed by the stream of traffic, and should be fitted with automatic closing devices, unless arranged to swing in both directions.

SLIDING DOORS.

Sliding doors should not be permitted across exitways used by the public, and any door at the junction of two exitways should open with the flow of traffic.

NOTE: For information on doors, gates, shutters, rope barriers, spring-operated friction buttons, floor coverings, and hangings, see reverse side of this sheet.

WIDTH OF CORRIDORS AND PASSAGES.



PLAN OF CORRIDOR WIDENED AT POINT OF INTERNAL EXIT.

Every corridor or passage leading from an exit should be of the clear minimum width of that exit, and should not be more than 15% wider than the exit to which it leads.

Where the route from the auditorium to an exit passes through a lounge, foyer, crush hall, or similar space, a clear path the width of the corridor or passage concerned should be maintained through such space.

INCREASED WIDTH AT INTERNAL EXIT DOORS:

Where two or more exits open into a corridor or passage at succesive points in its length, proceeding in the direction of exit, the width of such corridor or passage should be increased at each successive point by the width of the exit opening into it at that point.

NOTE: Doors from cloakrooms, lavatories, small bars, or boxes, do not necessitate any increase in the width of the corridor or passage into which they open.

Extract from the Manual of Safety Requirements in Theatres & other Places of Public Entertainment. (Home Office. 1934.)

INFORMATION SHEET: PLANNING DATA: PLACES OF PUBLIC ENTERTAINMENT. 4.

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

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INFORMATION SHEET

• 425 •

PLACES OF PUBLIC ENTERTAINMENT—IV

Subject : Internal arrangement of exits, corridors and passages.

The material given on this Sheet is taken from the Manual of Safety Requirements in Theatres and other Places of Public Entertainment, published by the Home Office, 1935.

The recommendations on the front of this Sheet are designed to prevent any constriction of exit ways, and advise that where exits or ways join a corridor or passageway the width of such corridor or passageway should be increased accordingly.

Obstruction of Corridors and Passages :

All recesses and internal angles shall be suitably defended in such a way as not to reduce the effective width of the corridor or passageway.

Doors, Gates and Shutters :

The condition that locks, bolts or other fastenings shall not be allowed on exit doors while the public is in the building is undoubtedly necessary. Flush bolts and barrel bolts on exit doors are far too common in this country ; and the former are probably the greater menace as they are quite unseen. The fact that the door is said never to be bolted while the audience are in the building is no safeguard at all.

There should be no locks or bolts other than panic bolts on any exit door or barrier.

All exit doors and doors through which the public pass on the way to the open air shall be without locks, bolts or other fastenings while the public are in the building ; except that doors used only for exit may be fitted with panic bolts.

Doors fitted with panic bolts shall be legibly marked, " Push Bar to Open " in such a manner as to comply with Condition 132, the height of the lettering being not less than 4 ins., and panic bolts shall not be more than 3 ft. from floor level. Panic bolts shall at all times be maintained in proper working order.

In new buildings no panic bolt which is not operable by horizontal thrust shall be employed.

Spring-operated Friction Buttons :

While spring-operated friction buttons may be allowed for keeping doors closed they should never be permitted for holding a door open because, if the door is pushed back, it will remain open after persons have passed through and will tend to increase the draught, and the smoke-retarding properties which almost all doors possess to a greater or less degree will be lost.

Doors may be fitted with spring-operated friction buttons, but must be maintained in such a condition as to open freely when a pressure of twelve pounds is applied to the door at or about the centre of the leaf.

Watch and Ward Doors, Collapsible Gates, Roller Shutters, Etc. :

(*a*) In buildings regularly used every external door used by the public (except doors referred to in Condition (*c*)) which is necessarily locked when the public are not in the building, every door (except doors referred to in Condition (*c*)) opening against the direction of exit, and every collapsible gate and roller or sliding shutter, shall, during the whole time the public is present, be locked in the fully-open position in such a way that a key is required to release it. Such key shall not be left where available to unauthorized persons.

(*b*) A notice or notices so arranged as to be visible from both sides of the door, gate or shutter whether the door, gate or shutter is in the open or in the closed position, shall be affixed to, or in a position adjacent to, every door, gate or shutter referred to in the previous Condition, bearing the words " This gate (door, roller shutter, etc.) is required to be kept open and locked in that position during the whole time the audience is in the building." This wording shall comply with Condition 132, the height of the lettering being not less than 3 ins.

(*c*) In all buildings, whether regularly or occasionally used, doors fitted with panic bolts only, which are secured when the building is closed with a chain or bar and padlock, need not be locked in the open position, and no notice in pursuance of the foregoing Condition is required thereat, but chains or bars and padlocks shall be removed from all such doors before the admission of the public and shall be placed on numbered hooks in an approved position not accessible to the public (e.g. in the manager's office). There shall be one such numbered hook for each of the doors concerned, and no more. No such chain, bar or padlock shall be replaced until the public have left the premises.

Before the public is admitted to any building regularly used the licensee shall inspect (or cause to be inspected) all doors and exits, and shall enter in a log book that all doors, gates and shutters referred to in the foregoing Condition (*a*) are in fact locked in the open position ; that all locks or chains have been removed from other doors and placed in his charge ; and that all panic bolts have been tested and are in proper working order.

Revolving doors. Revolving doors shall not be allowed to count in the calculation of exit width.

Turnstiles. Turnstiles, if installed, shall be arranged clear of the line of exit, and shall not be included in the calculation of exit width.

Smoke-stop doors. Smoke-stop doors shall be well made, not less than $\frac{1}{2}$in. in thickness at any point, self-closing by means of springs or other devices and without spring-operated friction buttons or other means enabling them to be fixed in the open position. They shall close on to a fillet not less than $\frac{1}{2}$in. in depth or, if arranged to swing both ways, shall be maintained in such a condition as to make a reasonably smoke-tight joint. If glazed, fire-resisting glazing shall be employed.

Fire-resisting doors. Fire-resisting doors shall be of metal-clad wood, iron or steel plate, composite or roller shutter type.

They shall be of such construction as to resist the passage of fire for a period of not less than 30 minutes.

Fire-resisting doors of the swinging or sliding type shall overlap the wall at the top and sides for at least 4 ins. ; provided that where such doors are of the swinging type they may be arranged to close into a rebate five-eighths of an inch deep around the opening.

Floor Coverings, Hangings and Rope Barriers :

Carpets, druggets, matting and other floor coverings, shall be secured in such a way as not to ruck up and cause obstruction, and mats over $\frac{1}{2}$ in. in thickness shall be sunk to floor level, unless of rubber with wide bevelled edge.

Curtains shall be adequately supported. They shall not be hung across gangways or other stairways ; where hung over doorways or across corridors they shall be so arranged as to draw easily from the centre and slide freely, and be so hung that they are clear of the floor.

Rope barriers in gangways or elsewhere shall be fitted with clips or fastenings which will part in the centre on slight pressure, and shall not trail on the floor when parted.

Lettering of Notices :

Condition 132 referred to above is as follows :—

(*a*) The lettering used for notices or inscriptions required by any requirement or condition shall consist of plain block lettering, shall be of the height prescribed in such requirement or condition, and shall be so proportioned that the width of no letter (except the letter " I ") is less than five-sevenths of its height and the width of no part of any letter is less than one-fifth of the width of the letter.

(*b*) The notices shall not contain any ornament or be so arranged adjacent to ornament that their legibility be thereby impaired.

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TURNALL ASBESTOS-CEMENT TRAFFORD ROOF TILES : ROOFING ACCESSORIES.

NOTE: For properties, uses and laying of the tiles see previous Information Sheets Nos 1.2 & 3. of this series.

(A) TYPES OF ADJUSTABLE RIDGE & HIP CAPPINGS.

1. Plain wing type, not fitting into the corrugations but bearing across them & allowing ventilating space between.
2. Close-fitting ridge having a bent & serrated apron for closing the spaces between corrugations & flat of tiles.
3. Unserrated close-fitting type for hips. Wings are scribed and notched out on site to fit over corrugations on tiles.

NOTE: Types 1. & 2. may be combined if ventilation is required along one slope of roof only, and may be used in this manner as a capping to N. roof lights (see below)

SIZE & COLOUR.

Ridge and hip cappings are manufactured in standard lengths of 3'8", in widths as shown on the sections.

Standard thickness 1/4".

Colours available, grey, red & russet-brown.

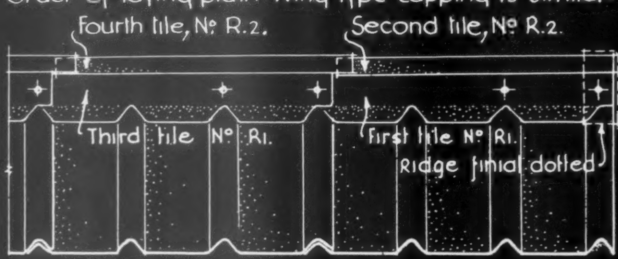
STANDARD FIXINGS.

All types of cappings are fixed with galv: hook bolts to steel purlins and with 4½" G.I. driving screws to wood purlins, as shown below and on Sheet No 3. of this series.

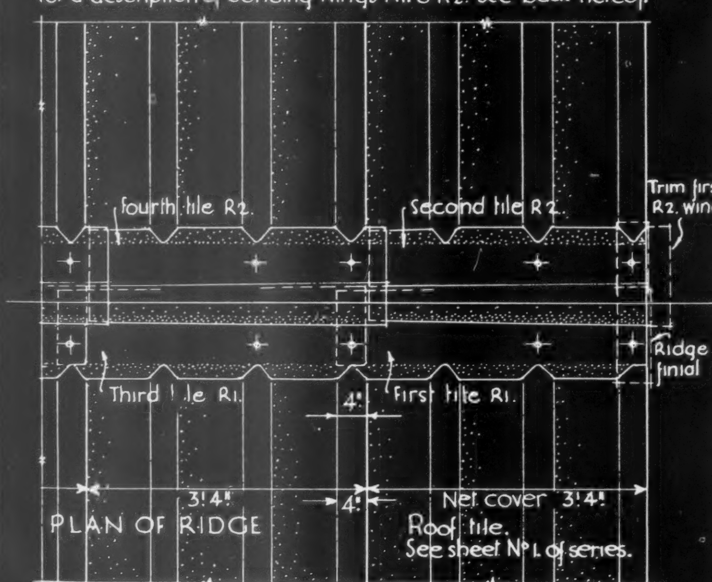
Junction of hip and ridge cappings should be carefully mitred to butt together & a lead cap beaten over the 3 cappings.

METHOD OF LAYING RIDGE CAPPINGS.

Order of laying plain wing type capping is similar.

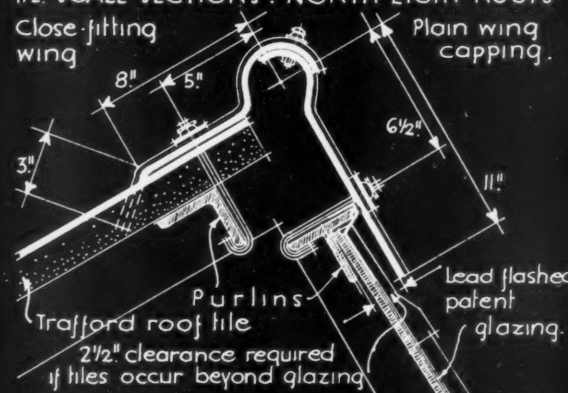


SIDE ELEVATION OF RIDGE. 1/2" Scale.
for a description of bonding wings R1. & R2. see back hereof.

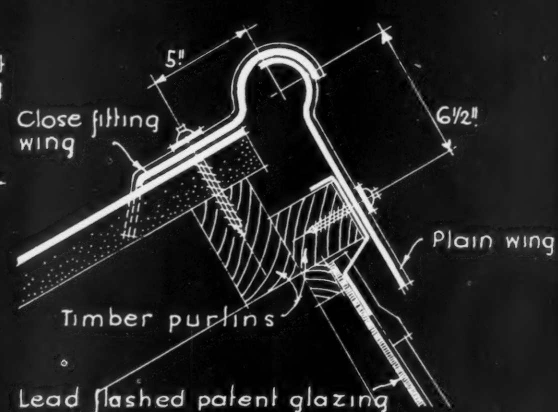


NOTE: R1. wing pieces are laid on one side of the ridge, R2. pieces on the other side.

1½" SCALE SECTIONS : NORTH LIGHT ROOFS



ARRANGEMENT OF CAPPING TO RIDGE WITH STEEL PURLINS.



ARRANGEMENT OF CAPPING TO RIDGE WITH TIMBER PURLINS.

(B) EAVES FILLER PIECES.

Used at eaves and valley gutters & above continuous glazing (see Sheet No 3 of this series) to close the openings formed by the rolls of the corrugations. Standard size 3'4" long by 8" deep and 1/4" thick. For skewed work special fillers 1'1¼" long by 1'0" deep are used and trimmed as required in situ. Standard tile fixings are used.

(C) BOTTOM GLAZING FLASHING PIECES.

These pieces, 3'6" long x 9" deep & 1/4" thick, are fitted over the tiles below continuous roof glazing, and fixed with the usual standard accessories. See section on Information Sheet No 3 of this series.

(D) CORNER PIECES

Are used to close internal or external corners of the junction of 2 sides of a building, or as end flashings to louvres, jack-roofs, etc. Standard size 8'0" & 4'0" long by 8" wings at 90°, in 1/4" thickness, for standard fixing to flat surfaces.

(E) BARGE BOARDS.

Similar to corner pieces but in 8'0" lengths only. To obtain a flat and even bearing on the roof tiles, the boards are butted up against the bottom of tile above, & from thence, lapped similarly to the tiles. If a roof tile corrugation occurs near or at the verge it may be trimmed off, or the top wing of the board trimmed back, to allow flat bearing.

Information from Turners Asbestos Cement Co. branch of Turner & Newall Ltd.

SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1. Grace G. Bayne.

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INFORMATION SHEET
• 426 •

ASBESTOS-CEMENT ROOFING TILES

Subject : Asbestos-Cement Roofing Tiles

General :

This Sheet deals with "Turnall" Trafford Tile asbestos-cement roof fittings for use with "Turnall" Trafford Roofing Tiles. Previous Sheets of the series dealt with the general properties, laying and purlin spacing.

Adjustable Ridge Cappings :

(1) The plain wing type ridge provides ample cover, but does not fit into the corrugations, and therefore allows for a maximum amount of ventilation without framing or supports. If a lesser degree of ventilation is desired, this wing may be used on one side of the ridge only, the other wing being of the close-fitting type. In this way, also, a ridge suitable for north light construction is obtained.

(2) The close-fitting ridge capping is moulded as shown overleaf, with a serrated apron or lip which, when in position, closes the space between the corrugation and flat of the tiles, thereby providing a neat and weatherproof finish at the apex.

For the purpose of the break bond overlap, this capping is made in two wing types, R.1 having two complete and two half-serrations, and R.2 having three complete serrations to the 3-in. moulded apron. These pieces are always fitted opposite to each other.

(3) The unserrated close-fitting type capping is used on hips. The 3-in. moulded apron is scribed and notched out on the site to fit over the corrugations of the tiles.

Method of Laying :

(*a*) *Close-Fitting Type Ridging.*—Laying is commenced at the right-hand end of the ridge as seen from the side. The first R.1 wing is placed in position over the top of the end tile, with the apron fitting over the corrugations. The roll of ridge wing R.2 is then fitted over that of ridge wing R.1 and the apron adjusted to fit the corrugations of the tile. Thus the ridge wings will be set to give the correct overlap when the next lengths are fitted.

Another R.1 wing is now placed over the next tile, with the apron in register with the corrugations, and it will be found that the right-hand end of the second R.1 wing overlaps the left-hand end of the first R.1 wing already in position. A second R.2 wing is now fitted on the opposite slope, over the roll of the second R.1 wing, with the apron in register with the corrugations as before. When these four wings are in position as described, they will be correctly lapped and jointed where the four ends meet. This procedure is followed throughout.

The first R.2 wing and last R.1 wing to be fixed will probably project over the verges, in which case the ends should be trimmed to suit requirements.

(*b*) *Plain Wing Type Capping.*—A method of laying similar to the above is followed, care being taken, however, to see that the lap joints are over the tile lapping corrugations and that the standard lap of 4 ins. is given.

(*c*) *Unserrated Type Hip Capping.* — Laying commences at the eaves in the same order as above. At the junction of the hips and ridge, the three cappings should be carefully mitred to butt together and a lead cap beaten over to make a watertight joint. The whole is then bolted or screwed down in the usual manner.

At the eaves, the ends of the hip capping should be trimmed off flush with the roof tiles and a wood block inserted to close the roll, pointing being done afterwards with cement or "mastic."

Ridge Finials :

The placing of these pieces is indicated on the ridge details overleaf. The finials are made in two types, for use with close-fitting and plain wing ridges. They are adjustable to any roof slope and interchangeable, as are the ridges. Thus the appropriate wings of each type form the north light ridge finial. Fixing is obtained through the wings with the standard accessories.

Eaves Filler Pieces :

For straight eaves the filler pieces are fitted under the tiles and fixed with the standard accessories. In some cases, however, they may have to be stitched to the underside of the tiles with seam bolts as shown on the "single ridge board" section on Information Sheet No. 3 of this series. The standard filler piece covers two complete corrugations and a further half corrugation at either side.

Bottom Glazing Flashing Pieces :

As indicated in the typical roof light details on Sheet No. 3 of this series, the space between the glass and the tiles below continuous glazing may be flashed with a lead apron, but by the use of the asbestos-cement bottom glazing flashing piece, the depth of and the strain on the lead apron are greatly reduced. Fixing should be commenced from the right-hand end, seam bolts being used as for the eaves filler pieces. Each length of flashing piece covers four corrugations of the tiling.

Corner Pieces :

Where the adjoining walls of the building, etc., are sheeted with ordinary Turnall Trafford tiles, a vertical strip of flat surface is required at the angle for the seam bolt fixing of the corner pieces. Watertight bearing is thereby obtained, and the pieces are lapped in the usual manner.

Barge Boards :

These pieces should be fitted as described overleaf and laid on to the flat of the tile at each verge. The vertical wing of the barge should be securely fixed to the gable wall with suitable accessories.

Information from : Turners Asbestos Cement Co., Branch of Turner and Newall Ltd.
Address : Head Office and Works, Trafford Park, Manchester, 17
Telephone : Trafford Park 2181 (8 lines).
London Office : Asbestos House, Southwark Street, S.E.1
Telephone : Waterloo 4014