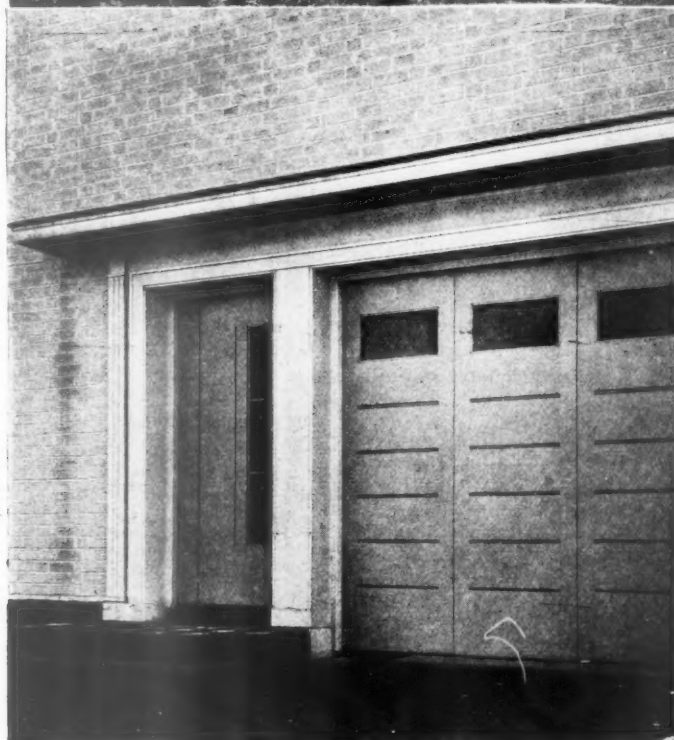
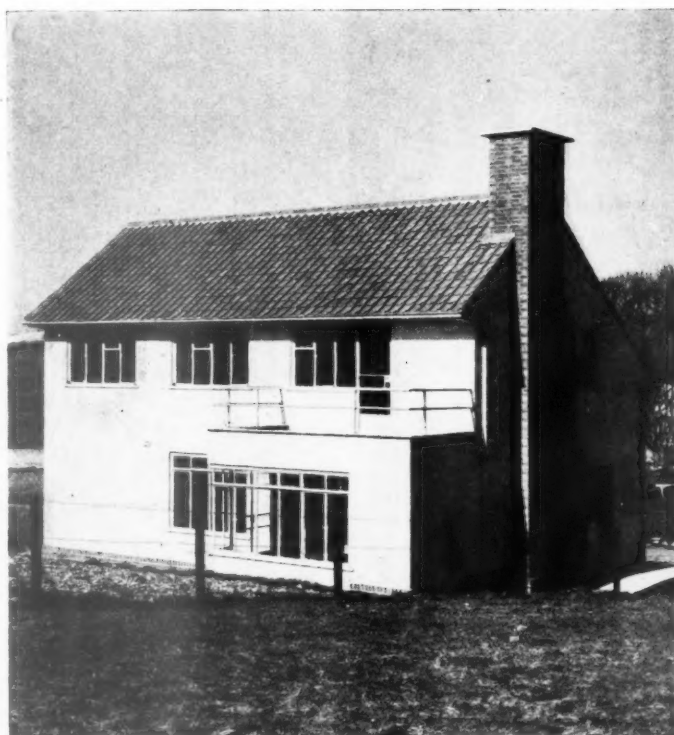


A house at Rottingdean



Very well fitted internally both as regards plumbing and fitments, this attractive little house cost just a fraction under 1,2d. per foot cube—a very moderate cost indeed for a house giving such adequate facilities for easy living.

An important contribution towards the low cost is the use of "Phorpres" Rustic Facing Bricks for all the external walls, colour washed with two coats of external "Duresco", except the chimney stack.



Architect: Elie Mayencas, A.R.I.B.A.

Contractor: Jack Edgerton.

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JOURNAL

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The Editor will be glad to receive MS. articles and also illustrations of current architecture in this country and abroad with a view to publication. Though every care will be taken, the Editor cannot hold himself responsible for material sent him.

THURSDAY, May 6, 1937.

NUMBER 2207 : VOLUME 85

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SUGGESTED REPLANNING OF HYDE PARK CORNER

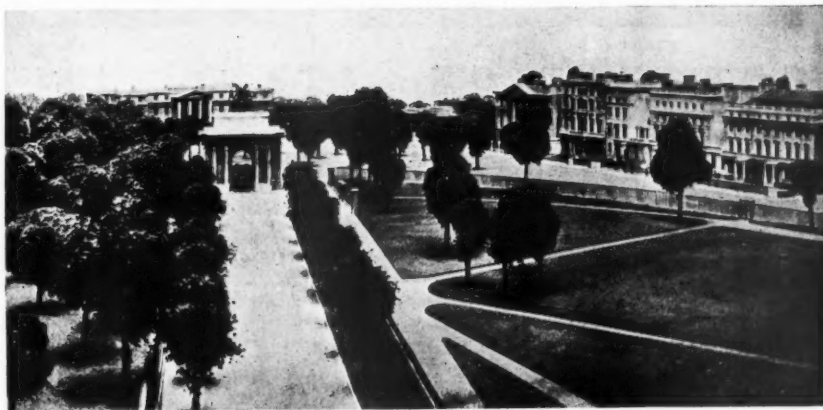
MODEL ON
VIEW AT
THE R. A.
EXHIBITION



1



2



3

TWO views (1 and 3) of a model of Hyde Park Corner as it is to-day; and two views (2 and 4) of a model of a scheme, prepared by Sir Edwin Lutyens, R.A., and Sir Charles Bressey for the suggested replanning of the area to relieve traffic congestion. The viewpoints are: 1 and 2, looking north-east from the Artillery Memorial towards Piccadilly; 3 and 4, looking west from Constitution Hill towards St. George's Hospital. Both models are on view at the Royal Academy Exhibition, which opened on Monday last. Sir Edwin is associated as Architectural Advisor with the Highway Development Survey of London now in progress, and the model (2 and 4) is designed to illustrate a possible way of improving and rearranging the traffic movement.

It is stated that the permission to exhibit the model of the suggested replanning scheme in no way commits the First Commissioner of Works or the Minister of Transport to the acceptance of this or any other scheme and that the model is being placed on view for the purpose of illustrating one possible solution of what is admittedly an urgent traffic problem.

An illustrated review of the Architecture at the Royal Academy Exhibition, which opened on Monday last, appears on pages 763-768.



4



CORONATION STAND IN PICCADILLY

One of the most exciting Coronation stands in London, on the top of Simpson's building in Piccadilly. The main roof level on which the stand is based is 94 feet above street level and the highest point of the stand is some 35 feet higher. The seats have a view both up and down Piccadilly, and it is interesting to speculate how the designer has allowed for the possible tendency to crowd to the nearer side of the stand as the procession passes below. The photograph reproduced was taken from the roof of Swan and Edgar's, designed by Sir Reginald Blomfield. The architect of Simpson's building was Mr. Joseph Emberton.



PRESERVING—DISTRICTS

IN the current issue of the *Architectural Review*, Mr. Robert Byron has written an article of the kind that is called outspoken.* His object has been to tell Coronation visitors about some of the things which are happening to London's buildings; and there can be no doubt of the disfavour in which he holds some of the organizations empowered to control those happenings.

Mr. Byron begins by emphasizing how special a city London is; that no great part of it has ever been laid out in the grand manner; and that apart from a hundred isolated buildings its virtues have come from its inhabitants' preferring surroundings worth living in to those of the magnificence commonly imposed on capital cities.

From this true summary of London's architectural fame, Mr. Byron moves on to an indictment which broadly is no less true. In order of merit he denounces the State, the Church, the great landowners, and the lesser landowners for permitting, purely for immediate profit, irreplaceable buildings to be swept away.

But, in moving to the attack, Mr. Byron does not seem to have done justice either to the scale of the destruction he hates or to the evil of its results. He lists for the most part only individual buildings destroyed, while London's claim to real distinction lies in her having once solved, on a very large scale, the problem of civilized urban living. It is whole streets and squares and terraces, whole districts in many cases, which are now disappearing in redevelopment; and it is with these that the real London is also vanishing.

The villains of this greater tragedy are still Mr. Byron's villains. All of them have been tempted and have fallen as the several million more people than London could hold in dignity and health swarmed down upon her. London, we all say now, is far too big; but the increase in land values has lessened the indignation of the landowners and bit by bit each piece of land has had twice or even three times its former building volume placed upon it.

And the question is what are we all going to do about it? On the side of private profit it may be said that an owner is entitled to sell his own property, that Georgian and Regency houses are too large, too inconvenient or too expensive for the ordinary citizen today, that even the small amenities of crowded flat blocks are better than the suburban house and rush-hour transport, and, finally, that London as the centre of present human needs is more important than London as a national park of historical buildings.

On the other side is the value of the eighteenth and early nineteenth century streets and squares as a standardized urban architecture of an extraordinarily pleasing appearance, as an extremely efficient architec-

ture which has only become out of date in the last thirty years, and as fairly open areas still remaining amongst the spreading strings and clusters of 120 ft. buildings.

The Londoner who walks thoughtfully in Oxford Street and Portman Square, the Strand and some parts of Chelsea can get a very shrewd idea what all London will look like when every landowner has redeveloped his property. And he will probably come to the conclusions that London will be both very unpleasant to live in and that the value of most of its land will have fallen very sharply—so sharply that its vanished streets and squares of five- and six-floored houses may seem to have been pulled down rather too hastily.

We, or our present rulers, are still in a position to do something to keep some of London's reputation and to help Mr. Byron save some individual buildings. We could do it by the only means we seem able to use nowadays, on a large scale, to benefit architecture; by restriction. If the larger areas of streets and squares that were built before 1850 and still remain were to be put under a twenty-five years' ban on any re-development with taller buildings than those now existing, we might find that we had killed several very desirable birds at our first shot.

High land values for the rest of London's surface could be reckoned to remain high for a quarter-century, the redevelopment of 1870-1914 buildings would promise a steady return and the search for really efficient taller buildings would be stimulated.

Simultaneously, the chief drawbacks to leasing a house, or part of a house, in one of the restricted squares would vanish. Leaseholders would no longer live in perpetual fear of half the square giving way to a flat block, nor would adjoining landowners struggle to be first in such profit snatching. And with the consequent rise in value of a Georgian house it would be worth while to alter and renovate it with modern conveniences—but not, in most cases, to rebuild. London's inhabitants, in fact, would be able to choose between the advantages of living in a high density or low density area without finding their choice subsequently nullified without anyone asking their opinion in the matter.

Such a scheme would hardly escape opposition from "restricted" landowners, but it is the duty of the L.C.C. to look ahead; and no one looking twenty years forward can doubt the truth of Sir Malcolm Stewart's belief that the gravitation towards London must be checked—somehow. And if by building restriction in certain areas we can arrest traffic congestion, keep some breathing spaces for Londoners, and also keep both uncrowded living conditions and a fine urban architecture in quite a large proportion of the central areas, it would seem worth while to try it.

* Published today as a pamphlet: *How We Celebrate the Coronation*. By Robert Byron. Architectural Press. Price 1s.



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NOTES & TOPICS

BEDFORD SQUARE

ALTHOUGH some genius, presumably encouraged by the Bedford Estate Office, once embellished Russell Square with terra-cotta mouldings round the windows, we had all imagined that phase to be over, and that no one was a more careful steward of his master's property than Lieut.-Colonel Evelyn Gordon, no one more meticulous in the preservation of sash-bars, fanlights and even torch extinguishers.

It seems, however, that an architectural ensemble is as nothing and the future values of all Bedford Square are to be imperilled for the future lords of Woburn by its destruction as an entity. The British Museum, ironically guardian of architectural treasures, threatens it on the east and the most perfect of all its houses, that at the corner of Gower Street, is rumoured to be retiring in favour of an office block sponsored by the Estate. If I am correct in my facts, and I have every reason to believe I am, Mr. Yerbury will have to launch another campaign.

AND MORE ABOUT PAULTONS SQUARE

My note last week about the threat to make Paultons Square, Chelsea, into a turning place for trolley-buses has brought me the following letter from the architects to the Estate.

"May we be permitted to correct the impression that 'the same Landlord put forward the suggestion that Paultons Square would make a suitable turning point instead.'

"We act for the Estate concerned through which, unfortunately, a turning point for these unwanted trolley-buses will have to be found. When the route through Chelsea Park Gardens, etc., was proposed by the Transport Board all the Tenants opposed it, and as Freeholder, our client did likewise.

"At that time we hoped that these trolley-buses might be diverted to the westward down King's Road with a turning point in the neighbourhood of the Police Station, but this route was ruled out by the Police. It was then that the Chelsea Borough Council, not our client, put forward the alternative route through Paultons Square. We, and

our client no less, were much concerned at this suggestion, but we had unwillingly to acquiesce in it, nevertheless, as no other practical route was apparently left.

"We agree that Paultons Square is an example of a charming and secluded Chelsea square of a century ago, in which our client has always taken a pride and interest, preferring to keep it as it is instead of allowing the houses to be pulled down and rebuilt with flats as might have happened when the leases fall in during the next few years.

"In our opinion it is deplorable that either this square or any other pleasant residential street on the estate should have to be spoilt because trolley-buses must have a turning point."

I need hardly say that I am delighted to learn that it was not the landlord who put forward the suggestion: this exception among landowners is, I believe, Major Sloane Stanley. My point remains, however—is, indeed, reinforced. The Chelsea Borough Council, having agreed in principle that the squares should be preserved, immediately agree also that the very best of them should be ruined.

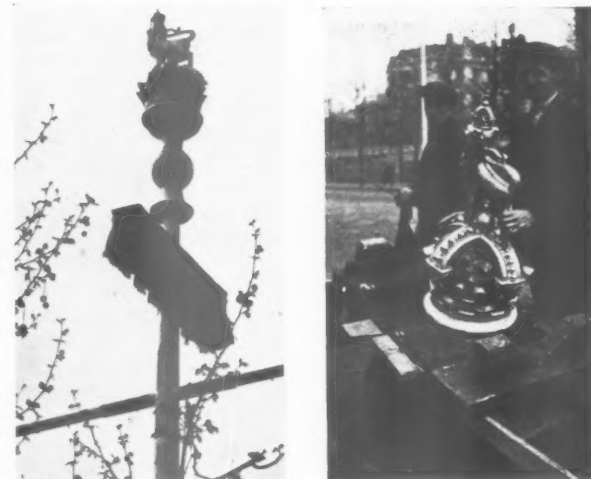
It is up to them to find a better solution than this. Even the police, you notice, refuse to have the trolley-buses.

FAREY LAND REVISITED

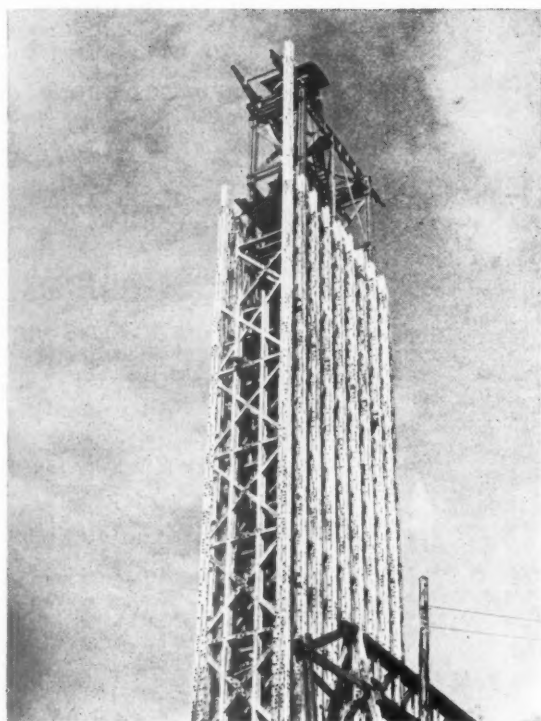
I have always been an ardent admirer of the clarity and, above all, of the skilful technique which so consistently goes to the making of Mr. Farey's perspective drawings. Nevertheless, a visit to the Academy confirms me in my conviction, to which I gave expression some months ago, that the proper method of explaining a building to others, *after completion*, is by means of a photograph.

When I said this before a great many people misunderstood me and imagined that I was in some way "getting" at Mr. Farey. On the contrary, Mr. Farey explains, better than anyone, I think, what is to be the aspect of those buildings which are still buried in the womb of time—that is the purpose of his work.

While in my opinion it is high time—it was high time twenty years ago—that Burlington House admitted photographs of completed buildings and rid themselves of the



On the left: one of the masts flanking the Mall ready for its banners. Right: one of the gilt and red crowns in transit. That in the Mall is easily the best of the more stately decorative schemes which are now being completed.



Astragal mentioned last week the ambitious construction being undertaken for the Paris Exhibition with small timber scantlings. As an example of such a structure this photograph of one of the entrance pylons has been sent to the JOURNAL. The pylon is of bolted timbers about 7 x 2 size and the photograph is by Mr. Serge Chermayeff

confused and muddled thinking which conceives the Architectural Room to be a sort of bastard offspring of the Water Colour Room, that doesn't mean there is no longer a place for perspectives.

FUN FOR EVERYONE

Shall we ever achieve a return to the days when original criticism of affairs was to be found on the pages of newspapers? The thing that depresses me most about our popular press is the unthinking way it takes the conventional line about all it reports, acquiescing when the public is imposed upon instead of raising an independent voice.

*

An example of this acquiescent spirit is given by the following press paragraph—a prize example of the way public interest comes second as a matter of course. It is taken from the *Daily Express* report of the new Crystal Palace road racing track.

*

"Grand fun is promised on these snaking bends and miniature mountains . . . The roar of the cars' exhausts yesterday astonished people living in the neighbourhood. The noise could be heard four miles away."

*

"Fun" is one operative word. "Astonished" is another.

MAY DAY ARCHITECTS

All the traditional revels were held in London last Saturday. When I say traditional, I mean traditional left wing.

In a tram at Westminster Bridge (there being no buses) I was made motionless by the May Day procession. Labour, Communism, Surrealism, Esperantism, Catholic Socialist Leagueism, I.L.P. and all were represented—the hammer, sickle and clenched fist. And then came a red banner with the word "Architects" on it. I am sorry to say that I forget the rest of the slogan; but it was definitely progressive. Young, and reinforced by a member of Praxis carrying a tee-square, but still looking argumentative, the R.I.B.A. of the future went by.

*

Opposite my tram an unmistakable capitalist twisted inside his Rolls Royce like a wasp under a glass for the whole forty minutes in which the procession passed by. Not all his millions could force a way through those gleaming T-squares.

MORE CORRESPONDENCE

SIR,—I usually enjoy Astragal's humorous thrusts, even when they come "near home," but his latest "effort," in which he attempts to put Mr. Gregory (whoever he may be) and Sir Robert Tasker into pair-horse harness, seems to me to fall very flat. Astragal evidently needs some spring medicine.

Sir Robert Tasker's speech in the House of Commons was more effective than that of Dr. Lechter, who made the longest parliamentary speech on record, when he spoke (before the Austrian Parliament) for twelve hours without a break—or even that record speech of Gladstone's which had 176 words in the first sentence!

But Astragal may take heart of grace. Let him remember that Brontë (Charlotte of that ilk) turned to journalism to keep the wolf from the door; Defoe, a London butcher, became a political writer (although he did not attain fame until he was sixty years of age—when he wrote "Robinson Crusoe"); Borrow peddled bibles for the British and Foreign Bible Society before he wrote classics; and Bunyan was a travelling tinker.

G. B. J. ATHOE

It is Major Athoe's last paragraph that interests me most; the other two hardly need comment. Most of our contemporaries, "lay" and otherwise, have given credit to Sir Robert Tasker for a speech which, in the opinion of one at any rate of his audience, showed him to be singularly ill-informed on a subject—architecture—which has sometimes been taken seriously by governments.

*

No, it is the last paragraph that thrills me. I have never classed myself with either Borrow or Bunyan; not even in the literary aspirations of my youth did I soar to that; the most I hoped to do was to steer clear of the worse sorts of journalese—I don't think even Meredith sank to "of that ilk."

*

En passant, did Charlotte really turn to journalism to save herself from starvation? The stipend attached to Haworth parsonage was not large, but I always imagined that, after a preliminary canter with "The Professor," Currer Bell launched "Jane Eyre" on an astonished world. Thackeray, however, or even Dickens, would have served Mr. Athoe's purpose equally well, and didn't Shakespeare hold horses outside the Globe?

THREE OR FOUR?

Last Thursday morning produced an early telephone call and a detached voice saying: "George the Third, not Fourth." A moment's suspense, and then I remembered the illustration on this page last week, the tail of a horse peering through its protective hoarding in Cockspur Street.

*

The voice, as anybody might have guessed, belonged to Mr. John Summerson, and proceeded to convict me of the thirteenth deadly sin (Misnaming Statues). I will go so far as to admit that Mr. Summerson may be right over the statue; it may be George the Third. My point is that it is *George the Fourth's horse*.

ASTRAGAL

NEWS

POINTS FROM
THIS ISSUE

- "How we celebrate the Coronation" 755
- "The social function of architecture waxes and wanes. There is in this country a great need of its waxing at the moment." .. 759
- "Apart from flats built for the artisan classes there were, in the City of London and the 28 metropolitan boroughs, five years ago, 24,500 flats; to-day the number has grown to 37,500" .. 760
- "The astonishing museum" .. 788

NEW FLATS AT BRISTOL

[Sir Kingsley Wood, the Minister of Health, opened last Friday a block of flats at Bristol which are a new experiment in slum-clearance provisions. The flats are being provided to meet the needs of small families and elderly single people who are unable, owing to their work, to move out to out-lying estates and who do not require a full-sized house. The block contains 41 flatlets consisting of a bed-sitting room, scullery and bathroom; 14 flats with one bedroom and living room, and 5 flats with two bedrooms and living room. The families who will occupy them are persons of very small means. The rents of the smallest flats are as low as 4s. a week, inclusive of rates, water and electric light, and include some furniture for the tenants.

B.I.F. 1938

More than half the total exhibiting space of the Engineering and Hardware Section



Hyde Park: by L. Péri. From an exhibition of sculpture in concrete held recently at the Gordon Fraser Gallery, Cambridge.

THE
ARCHITECTS'
DIARY

Thursday, May 6

LIVERPOOL SCHOOL OF ARCHITECTURE. Exhibition, in the R.I.B.A. building, of photographs and models of work carried out by former students and by the staff of the School. Until May 14. 10 a.m. to 6 p.m.

REDFERN GALLERY, Cork Street, W.1. Exhibition of watercolours, drawings and collages by Paul Nash. Until May 29. 10 a.m. to 6 p.m. (Saturdays 10 a.m. to 1 p.m.)

THE BRITISH SCHOOL AT ROME, Imperial Gallery of Art, Imperial Institute, South Kensington, S.W. Exhibition of works submitted in the Competitions for the Rome Scholarships of 1937 in Mural Painting, Sculpture and Engraving. Until May 22. 10 a.m. to 5 p.m.

BIRMINGHAM MUNICIPAL SCHOOLS OF ARTS AND CRAFTS. At the Museum and Art Gallery. Exhibition of Students' Work. Until May 22. 10 a.m. to 6 p.m. (8 p.m. on Wednesdays).

ROYAL ACADEMY EXHIBITION, Burlington House, Piccadilly, W.1. Until August 7.

SOCIETY OF ANTIQUARIES, Burlington House, W.1. "The Earliest Cultures of Palestine and Cilicia." By Professor J. Garstang. "Additional Notes on Shalmaneser's Palace." By Professor A. J. B. Wace and E. A. B. Barnard. "Early 13th Century Tombs in Ezer Cathedral." By C. A. Ralegh Radford and Prof. H. E. Bishop. 8.30 p.m.

INSTITUTION OF ELECTRICAL ENGINEERS, Savoy Place, W.C. "Electricity in the Hospital." By R. S. Whipple. 6.30 p.m.

Friday, May 7

ROYAL SANITARY INSTITUTE. At the Rolls Hall, Monmouth. "The Public Health Acts, and their Implications in Rural Areas." By J. Jenkin Evans. 10 a.m.

Saturday, May 8

ASSOCIATION OF ARCHITECTS, SURVEYORS AND TECHNICAL ASSISTANTS. Visit to the New Westminster Hospital. 2.30 p.m.

Monday, May 10

R.I.B.A., 66 Portland Place, W.1. One hundredth and third Annual General Meeting. 8 p.m.

Tuesday, May 11

SOCIETY OF CHEMICAL INDUSTRY (Road and Building Materials Group). At Burlington House, W.1. "Fire Resistance of Modern Buildings." By W. W. Davies. 8 p.m.

of the British Industries Fair at Castle Bromwich, Birmingham, has been definitely let for the next Fair in February, 1938.

CORONATION STANDS

In the House of Commons last week Sir James Blindell, on behalf of the First Commissioner of Works, stated, in reply to Mr. Hardie, that 2,720 tons of steel tubes and couplers had been used in

the erection of the Government stands on the processional route for the Coronation. In addition, 155 tons of steel tubes and couplers and 480 tons of structural steel had been used in the construction of the stands within the Abbey and the annexe.

NEW ENTERTAINMENT CENTRE

We understand that the London Theatre Centre, Ltd., have made arrangements to build two theatres, a restaurant, a number of shops and six floors of modern offices in Lower Regent Street. Mr. Robert Cromie, F.R.I.B.A., is the architect for the scheme.

BUILDING SOCIETY PROGRESS

The total assets of the Building Societies of Great Britain at December 31 last are estimated at between £650 and £655 million, in the Annual Building Societies Section included in the current issue of *The Statist*. The section gives an exhaustive review of the present building society position, and contains several important articles by eminent authorities.

MINISTRY OF HEALTH

The Minister of Health, the Rt. Hon. Sir Kingsley Wood, M.P., has appointed Mr. F. Slaton to be an Assistant Secretary of the Ministry of Health.

D.I.A.

The Design and Industries Association has arranged a Northern Capitals Cruise. The party will leave Southampton on Saturday, July 3, and will return on Thursday, July 15. The D.I.A. has also decided to organize a week-end visit to Paris from Friday, June 18, to Tuesday, June 22.

Full particulars are obtainable from the Secretary of the Association.

ON THE AIR

Thursday, May 6 Television. 3.10 p.m. Architecture: 3. "The Case for the Satellite Town." A talk by Sir Raymond Unwin. Illustrated by models and films. This talk will be repeated at 9.5 p.m. National Programme. 2.5 p.m. "Your Home and Mine: What is Happening to the Countryside." By Geoffrey Boumphrey.

BERKSHIRE SOCIETY OF
ARCHITECTS

At the annual general meeting of the Berkshire Society of Architects, held last week at Reading, Mr. A. J. C. Cooper was elected as chairman for the ensuing year. Other officers are as follows: Vice-chairman, Mr. F. E. Wapshott, L.R.I.B.A.; hon. librarian, Mr. A. J. Cooper; hon. treasurer, Mr. W. R. Morris, F.R.I.B.A.; hon. auditor, Mr. E. P. Morgan, L.R.I.B.A.; hon. secretary, Mr. E. A. Roberts. Committee members, Mr. A. T. Doe, L.R.I.B.A., Mr. H. M. Hutt, A.R.I.B.A., Mr. A. B. West, F.R.I.B.A., Mr. C. B. Willcocks, F.R.I.B.A., Mr. W. J. Freeman, A.R.I.B.A., and Mr. E. J. Harris, L.R.I.B.A.

LIVERPOOL SCHOOL OF
ARCHITECTURE

An exhibition of photographs and models of work designed and carried out by former students and by the staff of the Liverpool School of Architecture was opened in the R.I.B.A. building on Friday last by Professor Julian Huxley.

Professor Huxley said: "I have no special claim to speak on architecture, except that

I am intensely interested in architecture, as the human activity which is both an art and a science, and in addition is inevitably social.

"The social function of architecture waxes and wanes. There is in this country a great need of its waxing at the moment. As regards style we have been largely living in the past, as regards technique we have been allowing the low standards inevitably associated with the small local builder to preponderate over those which could be available to the expert architectural firm, and as regards planning we have been so complaisant to the idea of individual private enterprise that we have permitted chaos.

"The need is there, and is urgent. Luckily there are signs that it may be met. We often move slowly in England, but sometimes this is an advantage. We are now ready, if the public response is adequate, to reap the benefits of the trial of modern methods in other countries.

"The Liverpool School of Architecture has had a great deal of influence in this preparatory period. Liverpool was the first University in this country to devote its chair of fine art to the subject of architecture, and the resultant school was the first in Britain to provide anything but evening classes. Its growth has been remarkable. At the outset there were under a dozen students and the course lasted two years. The course is now a five-year one, yet they have 200 students—and a waiting list. It is the oldest and the largest university school of architecture in the British Empire. It is interesting that there has always been a large proportion of students from overseas. For this success we must thank two men in particular—Professor Reilly and Professor Budden.

"In this exhibition you will see the fruits of the school's work during the past fifteen years. This period has been a critical one in the history of architecture, because it has been the period in which the possibility has dawned of realizing in architectural practice the new command of nature made possible by science. Steel, glass, concrete, synthetic materials; technical inventions concerning ventilation, heating, lighting, vertical transport by elevators—these have opened a new world for the architect to conquer. The so-called modern style is not a style: it is the attempt to realize a revolution.

"The exhibition here shows us a cross-section of this slow but none the less revolutionary process. Professor Budden has had a great share in promoting the change, by calling to his aid experts in the technological domain.

"I look forward to a great period in British architecture as the result of the gestation of new ideas and new methods since the war. If so, the Liverpool School of Architecture may claim a premier share of praise."

THE ARCHITECTURE CLUB

The twenty-seventh dinner of the Architecture Club was held at the Savoy Hotel, W.C., on Thursday last, under the chairmanship of Mr. R. Holland-Martin (president of the club).

The subject for discussion was "Modern Flats: A Menace or a Necessity?" The Chairman, introducing the subject, said that flats apparently came first from Scotland, the first mention of them in English literature being in *Redgauntlet*, where Sir Walter Scott said: "We chose to imitate some of the conveniences of the English dwelling-house instead of living piled up above each other in flats."

Mr. Darcy Braddell, F.R.I.B.A., who followed,

WORKING DETAILS

In February, 1934, when architectural practice was just beginning to recover from the slump, the JOURNAL began a new section called *Working Details*. The intention behind this series was twofold: to illustrate the methods of construction and finish used by well-known firms in solving some of the more special problems in design; and, perhaps more importantly, to explain ways in which new materials and methods had been used to meet special problems or to overcome old problems.

This series, in which photographs of the completed work were reproduced together with drawings and projections explaining the constructional details, was apparently found very useful, and was continued until the beginning of the "Shops" articles on November 26 last year. Publication was then suspended in order that the whole series of Details could be examined, and the possibilities of improvement or alteration carefully gone into.

Several alternative methods of presentation have been tried in the last five months, and the Details will, as before, concentrate chiefly on the use of fairly recent materials in all types of construction, fittings and equipment. The most obvious change in presentation will be probably the use of mechanical tints to differentiate materials on the drawings, but it is also hoped that a higher standard of conciseness and clearness has been obtained in presentation.

The first two *Working Details* of the new series were published last week; the third and fourth details appear in this issue.

said he had recently been present at a debate where the question was propounded: "Can a nation be reared in flats?" But on that occasion flats had been discussed only from the point of view of the poorer classes, until he had himself raised the question: "Was it right that the members of the professional classes should spend a quarter of their income and cramp their families into the warrens which house agents described as 'luxury flats'?" How long had the world been accustomed to live in flats? The Chairman had quoted Sir Walter Scott, but the Romans had lived in flats, and the custom had continued in Italian towns until this day.

Mr. Braddell then showed a number of lantern slides of various pre- and post-war blocks of flats.

Sir William Rothenstein said that in the modern luxury flat the occupier paid an exorbitant rent merely to save maids the trouble of

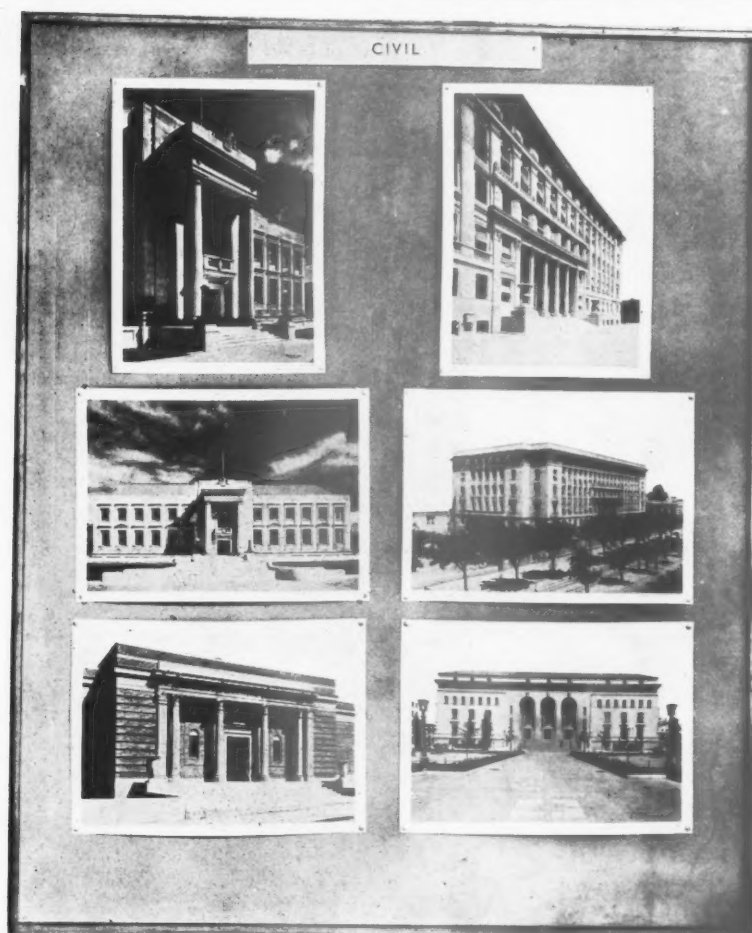
lighting fires and so that he could have a hot bath at any hour of the day or night. But people suffered a terrible loss through being penned up in these tiny places, and it was intolerable that young people with a family should have to take such rooms. Was it not possible to do something about it? Was it all a question of landlords profiteering?

Mr. T. J. Cullen, managing director, London County Freehold and Leasehold Properties, Ltd., said Mr. Darcy Braddell should have shown some really good flats, for these existed. Flats could be built with gardens attached, far better than those attached to houses in London, and far better than such squares as Portland Square. If the houses around Portland Square could be cleared away and a sensible block of flats erected instead to house the same number of people, everybody would agree that Portland Square would be a much more beautiful thing. But he agreed with previous speakers that if



At the opening of the exhibition of work by past students and members of the staff of the Liverpool School of Architecture in the R.I.B.A. building on Friday last. Left to right: Professor L. B. Budden (Principal of the School); Mr. H. M. Fletcher; Professor Julian Huxley (who opened the Exhibition); and Mr. J. L. Stocks, Vice-Chancellor of Liverpool University. In the foreground is a model of the Liverpool Orphanage, Woolton, by Barnish, Silcock and Thearle.

LIVERPOOL SCHOOL OF ARCHITECTURE EXHIBITION AT THE R.I.B.A.



On Friday last an exhibition of work by past students and members of the staff of Liverpool School of Architecture was opened in the R.I.B.A. building. Above is a general view of the Henry Florence Memorial Hall, showing the exhibition screens; and a typical screen showing civil work; top (left) and centre (left): Central Library, Birkenhead, by F. H. Crossley; top (right) and centre (right): Headquarters of the Egyptian State Telegraphs and Telephones, Cairo, by Maurice Lyon. Bottom (left): Williamson Art Gallery, Birkenhead, by Thearle and Hannaford. Bottom (right): Public Library, Johannesburg, by B. St. C. Lightfoot.

we must limit our ideas to the nests of tiny boxes that were being built we must all hate flats, and suggest they were a menace. But why were the nests of tiny boxes built? His company would never suggest such places and did not like to own them. He thought the trouble was that the architect was necessarily commercially minded, and consorted with the developer who was a greedy fellow, and who in turn consorted with a rapacious ground landlord. Thus we got the result that it was hardly possible to build anything but nests of boxes. But he could tell of flats built within the last few years that were attractive and had gardens. A flat might be a most useful thing to people getting married; they could start with a flat and after a few years take a house in the suburbs. Then, when the family had grown up, they could return to another flat in London. Apart from flats built for the artisan classes there were in the City of London and the 28 metropolitan boroughs, five years ago, 24,500 flats; today the number had grown to 37,500. Practically the whole of these had been built within the last fifty years, and during the same period the total number of dwellings in London had increased by 118,000. That figure included the flats, and it was illuminating to find they accounted for so large a part of the increase. At the statutory meeting of his company fifty years ago, the chairman had staked his reputation that the shareholders would never receive less than 8 per cent., but for years the usual dividend had been 2 or 3 per cent., and it was not until 1928 that 8 per cent. was reached. In 1905 almost every block of flats in London fell into the hands of mortgagees, and these were unable to realize the amount of their mortgages. That was because a third of the flats were empty, and if we went on building flats that were merely nests of boxes the same thing would happen again because people would not live in tiny little rooms. He hoped some steps would be taken to prevent the ground landlord and the developer being so greedy. If that could be done flats would be found to be a necessary amenity.

Mr. T. P. Bennett, F.R.I.B.A., said one of the reasons flats were built in London was because of the problem of transport that London shared with other great cities. Another reason was that women no longer wanted to spend their lives in the heights or depths of domesticity. They did not want to do housework, they had other occupations—music, bridge, golf, visiting the sick or even earning a living. Flats were convenient to certain classes of the population because they eliminated the journey to and from work. In some cases people who lived in flats had country cottages in which to spend their leisure and bring up their children. Flats should be built in places where people wanted to live, so that not ten rich people, but forty people with moderate incomes could have the outlook over a park or London square; but that was only possible if you designed many dwellings on a relatively compact area. There was also the possibility in certain classes of building of providing communal services. All who had been to Vienna had seen the fine kindergartens, laundries, etc., attached to blocks of dwellings, and that was not possible with houses scattered over large areas. Flats should be built for the class who were to live in them.

In flat development you had to consider people's occupations, amusements, standards of life and ideas of comfort. A member of the House of Commons could not leave at eleven, twelve or one o'clock and journey five or ten miles to a desirable suburb. A worker in the theatre, restaurant or newspaper world must have a dwelling place near his work. Ground rents were one cause of flats being dear. In one case the houses on a site now occupied by a block of flats had yielded a ground rent of £700 or £800 a year; the ground rent of the block of flats was approximately £8,000 a year. Then, included in the rent, were certain services. To these must be added local rates, etc., so that the return to capital was not large. He was building flats now on which the owners never hoped to realize more than 6½ per cent. per annum when the block was fully let and completely successful.

Professor A. E. Richardson said flats were a menace not only to the inner parts of London, but extended from Epping to Leatherhead just as you found American skyscrapers not only in New York, but in the western plains. The old pleasant amenities were disappearing, never to be replaced. London was becoming a strange place, ugly and depressing. No flat should be more than three storeys in height and flats should have large rooms and a spacious courtyard.

NEW L.C.C. FLATS

At Tuesday's meeting of the London County Council the Housing and Public Health Committee submitted proposals for the erection of nearly 800 flats in London at a total estimated cost of £458,000, with accommodation for over 3,800 persons.

These proposals include:—

- (1) The erection of eight more blocks of flats, with accommodation for nearly 2,300 persons, at the Rockingham Estate, Southwark. Cost: £271,300.
- (2) Acceptance of a tender for the erection of a block of flats—containing thirty-five dwellings with accommodation for about 150 persons—at Chalton Street, St. Pancras. Cost: £18,450.
- (3) Acceptance of a tender for the erection, at a cost of about £168,250, of five blocks of flats and six shops with flats over, at King's Mead Estate, Hackney Marsh.

COMPETITION NEWS

SECONDARY SCHOOL, GLOUCESTER

The Governors of the United Schools, Gloucester, invite registered architects domiciled in the United Kingdom to submit designs in competition for the erection of a secondary school for boys at Podsmead, Gloucester. The Governors have appointed Major H. Stratton Davis, M.C., F.S.A., F.R.I.B.A., as assessor; and the following premiums are offered: £200, £150 and £50.

Conditions, etc., are obtainable from Mr. H. J. Larcombe, Clerk to the Governors, Belsize House, Brunswick Square, Gloucester (Deposit £1 is.). The last date for questions is Monday, June 7, 1937, and the last date for sending in designs is 5 p.m. on Tuesday, August 24.

BELFAST WATER BOARD: NEW OFFICES

The Belfast City and District Water Commissioners invite architects resident in Great Britain and Northern Ireland to submit designs for their new offices, to be built in Queen Street, Belfast. The Commissioners have appointed Mr. Austen Hall, F.R.I.B.A., to act as assessor; and the following premiums are offered: £300, £200 and £100.

Application for conditions should be made to Mr. W. I. Quin, Secretary and Registrar, Water Offices, Belfast (Deposit £1 is.). The last date for questions is May 31, 1937, and the date for submission of designs is July 31.

NATIONAL EISTEDDFOD COMPETITIONS

The National Eisteddfod of Wales, to be held in Cardiff in 1938, has decided to hold two open competitions. These competitions are as follows:

- 1: Design for a scheme comprising baths and physical culture centre in Cardiff. First premium, £60; second premium, £30; third premium, £20.
- 2: A design for a group of twelve dwellings for aged people arranged on a village green, and suitable in architectural character to the Vale of Glamorgan. First premium, £30; second premium, £20.

A medallion of T.M. the King and Queen which was recently unveiled at the Industrial Welfare Society's building in Hobart Place, S.W. The medallion, in bronze, is 10 ins. in diameter, and was executed by Donald Gilbert. A similar medallion is now on view at the Building Centre.



Mr. Percy Thomas has been appointed assessor of both competitions.

Conditions of these competitions will be available about the beginning of August, and will be obtainable from the Secretary, National Eisteddfod of Wales, Cardiff.

R. I. B. A.



COUNCIL MEETING

Following are some notes from a recent meeting of the Council of the R.I.B.A. 1937:—

British Architects' Conference, 1938: Upon the recommendation of the Allied Societies' Conference it was agreed to accept the invitation of the Wessex Society of Architects to hold the British Architects' Conference at Bristol in 1938.

Conference to consider the possible Institution of Courses of Instruction, Examinations and the Creation of a Diploma in Illuminating Engineering.—Mr. Walter Goodesmith (A.), hon. secretary of the Science Standing Committee was appointed as an additional representative of the R.I.B.A. to the above conference.

The New Building Committee.—The work for which it was appointed having been completed, it was agreed to dissolve the New Building Committee and the cordial thanks of the Council have been conveyed to all the members of the committee.

Officers of the Board of Architectural Education, 1937-1938.—The following appointments were made for the year ending March 31, 1938: Mr. T. A. Darcy Braddell, Chairman of the Board. Vice-chairmen of the Board: Mr. Hubert Lidbetter (Chairman of the Examinations Committee); Mr. Joseph Addison (Chairman of the Schools Committee); Mr. W. B. Edwards (Chairman of the Prizes and Scholarships Committee); and hon. secretary of the Board, Mr. A. B. Knapp-Fisher.

Competitions and the Royal Fine Art Commission.—On the recommendation of the Competitions Committee it was decided to insert the following paragraph in the "Directions for Assessors": "The Assessor should bear in mind that it may

be necessary for the selected design to be submitted to the Royal Fine Art Commission and it is desirable that he should draw the attention of the successful competitor to this possibility immediately after the award is made. If before drawing up the conditions the Assessor knows definitely that it will be necessary for the selected design to be submitted to the Royal Fine Art Commission, it would be well for him to insert a paragraph to this effect in the conditions."

Competition Estimates.—On the recommendation of the Competitions Committee it was decided to amend the fourth paragraph of clause 3 of the "Directions for Assessors" to read as follows:—

"It is advisable to state the price per foot cube at which the Assessor is satisfied that the proposed building can be built, and when a maximum expenditure is contemplated it should be stated, and competitors should be told that this sum must not be exceeded. An Assessor must not allow a limit of cost to be fixed unless he is satisfied that the proposed building can be built within it."

Resignations.—The following resignations were accepted with regret: Messrs. Charles Edward Tebbs (F.) and Reginald Arthur Hyatt Phipp (A.).

THIS ARSHETECTURE

"The next meeting of the General Purposes Committee of the Huddersfield Corporation will consider the advisability or otherwise of the separation of the architectural staff from the Borough Engineer's Department. At the last meeting of this body, the Highways Committee was requested to report on this matter.

"The report, which has been placed in the hands of members of the Council, does not recommend a separation.

"The document, signed by Alderman C. H. Moxon, the deputy-chairman of the Highways Committee, affirms that the Architectural Department operated separately from the Borough Engineer's Department would, in the aggregate, cost the ratepayers more than the combined departments do at the present time, and that there would be less efficiency. The extra cost to the Corporation if the architectural work is made a separate department will, it is stated, be at least £3,000 a year without any prospect of increased efficiency."—From the *Huddersfield Daily Examiner*.

LETTERS

FROM

READERS

R.I.B.A. Junior Members' Committee

SIR,—As chairman of the R.I.B.A. Junior Members' Committee, I should be very grateful if you would assist in bringing the work of this Committee to the notice of those in whose interest it was initiated, namely, members and students of the Institute under the age of thirty-five.

The Junior Members' Committee was appointed in 1935 with the following terms of reference:—

(a) To arrange informal general meetings.

(b) To organize among the junior members of the Institute from time to time, as may be necessary, working parties and research groups to assist in the work of other committees of the Institute, and to undertake work on their own initiative after having obtained authority from the Council.

(c) To keep the Council informed of the views, activities and interests of the younger members of the profession.

Up to the present, the activities of the Committee have been almost exclusively confined to the first two of these categories. It feels now that it is necessary to emphasize the importance of the third, and to this end it invites the co-operation of junior members of the Institute, both in London and the Provinces.

It must, of course, be realized that the Junior Members' Committee, not being an elected body, cannot claim to be in the strict sense of the word *representative* of the section of the Institute with which it is concerned. On the other hand, it provides not only an open forum for discussion at the informal general meetings, but a means of direct approach to the Council upon practically any subject of interest or importance to junior members.

The value to the Institute as a whole of this part of its constitutional machinery depends entirely on the extent to which contact is made with currents of opinion among the members concerned, and that in turn depends upon the enthusiasm and interest of the junior members themselves. There are several ways in which this interest can be directed. Suggestions for topics of discussion at the informal general meetings are welcomed by the Committee, especially when they come from groups, such as students' associations, representing a common interest. The expression of individual points of view

JOHN SUMMERSON, A.R.I.B.A.

Chairman, R.I.B.A. Junior Members' Committee.

SIR E. GUY DAWBER, R.A., F.R.I.B.A.

is, however, also invited, as this supplies the Committee with the kind of evidence which it needs to render its activities effective.

Further, it is felt that a useful purpose would be served if the allied societies were to consider the desirability of establishing their own committees of younger members, to co-ordinate opinion in their particular areas and report to the R.I.B.A. Junior Members' Committee, who would then be in a real position to report to the Council upon "the views, activities and interests of the younger members of the profession."

A list is attached showing the present personnel of the Junior Members' Committee and the various interests which are represented on the committee.

JOHN SUMMERSON,

Chairman,

R.I.B.A. Junior Members' Committee.

Following is a list of the members of the Committee referred to in the above letter:

Miss J. M. Alberty (private practice, South-eastern area); Mr. John Brandon-Jones (assistant in private office, London); Mr. R. L. Davies (student, Architectural Association, London); Mr. K. O. W. Hardy (student, Northern Polytechnic, London); Mr. H. J. Hitch (the Polytechnic School of Architecture, Regent Street, London, and assistant in private practice); Mr. H. Frank Hoar (private practice, London); Professor W. G. Holford (practice and teaching, South Africa and Liverpool); Mr. Bertram Hume (private practice, London); Mr. R. Furneaux Jordan (practice and teaching, Birmingham and London); Mr. W. H. McNicol (practice and teaching, Manchester and London); Mr. J. L. Martin (head of the School of Architecture, Hull); Mr. E. H. L. Osman (student, Bartlett School of Architecture, University of London); Mr. R. T. F. Skinner (practice, London); Mr. J. N. Summerson (assistant editor, technical journal, London); Miss J. Blanco White (assistant and private practice, London); Mr. Patrick Wilson (assistant in private office, London); Mr. H. Myles Wright (assistant editor, technical journal, London, and private practice); Mr. F. R. S. Yorke (practice and editor, technical publication, London).

Register for Artists and Designers

SIR,—The press kindly permitted me last summer to draw attention to the exhibition of inn signs which was held in London during November.

Its unprecedented success was a surprise and evidence of the interest of the general public in the subject, for nearly 18,000 people visited the exhibition, and the eulogistic notices which

appeared without doubt contributed to such an excellent result.

A register of artists and designers who are prepared to undertake inn signs is now almost ready and will shortly be available for inspection at the Building Centre, 158 New Bond Street, but these are chiefly photographs and drawings by those whose actual work was included in the exhibition.

The Committee, of which I am chairman, feels that there must be many who may not have heard of this suggested register and who would like examples of their work to be included, and artists should communicate without delay with the secretary, Mr. Gerald Millar, Room 167, St. Stephen's House, Westminster, and submit designs or photographs of signs they have executed or designed for inclusion in the register if approved by the Committee.

This will enable brewers and inn-keepers who propose ordering new signs to select those they consider suitable and which should ensure a really good standard of design and at the same time be of help to those artists who feel they have a gift for this sort of work.

The exhibition aroused such keen interest that the Committee does not want the results to be lost and hopes that some permanent good may accrue in the revival of this most ancient and historical craft.

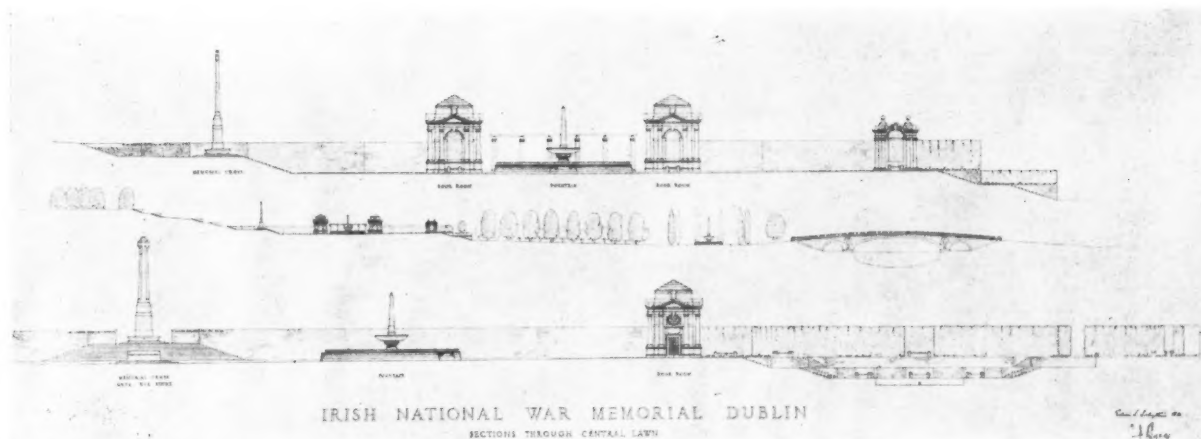
Well-painted signs can be seen today in many parts of the country, but it should always be remembered that a good painting is often spoilt by the over-elaboration or feebleness of the enclosing framework, and, whether supported on a post or hung from a bracket or attached to the building, great care should be expended on the surroundings of a sign if it is to be a success.

It is much to be desired also that brewers should abandon the use of a mere trade symbol and revert to the individual sign, which in every way is more attractive and adds so greatly to the appearance of our inns and public-houses.

GUY DAWBER

Cambridge Architects

At the recent annual general meeting of the Cambridge Chapter of the Essex, Cambridge and Hertfordshire Society of Architects, the following officers were elected for the year 1937-38: chairman, Mr. S. E. Urwin, A.R.I.B.A.; vice-chairman, Mr. R. D. Robson, A.R.I.B.A.; honorary secretary, Mr. H. H. Parker, L.R.I.B.A.; honorary treasurer, Miss K. R. H. Berwick, A.R.I.B.A.; librarian, Mr. H. L. Mullett, M.A., L.R.I.B.A.; Executive Committee: Messrs. J. D. Bland, A.R.I.B.A., T. Fyfe, M.A., F.R.I.B.A., H. C. Hughes, M.A., F.R.I.B.A., N. T. Myers, F.R.I.B.A., and T. F. Parker, L.R.I.B.A.



Irish National War Memorial: sections through Central Lawn. By Sir Edwin Lutyens, R.A., and T. J. Byrne. (No. 1294.)

ARCHITECTURE AT THE R. A. EXHIBITION

[BY R. FURNEAUX JORDAN]

MOST of us have long since grown accustomed to the fact that the Spring Exhibition at Burlington House is, fortunately, not representative of British art and that that unfrequented corner the architectural room is even less representative of British architecture.

It is, nevertheless, a pity that in this, the Coronation year, when so many visitors have arrived in what they still hopefully regard as one of the world's cultural centres, that the hundred and fifty odd drawings and models (some of them very odd) which are gathered together at Burlington House should give the false impression that architecture in this country has reached its nadir. This is no mere journalistic flourish—I walked out into Piccadilly uncertain as to whether my feelings could best be described as anger or depression—neither is it a preliminary to the annual complaint that the Academy do not exhibit enough work of the *avant garde* school, for I do not know whether such work was even submitted for their consideration and, in any case, I could never see why people should be asked to think in terms of a generation which is not their own.

No, what is so deplorable is the almost ecclesiastical complacency with which the most eminent members of the profession exhibit designs which are, at best, commonplace, and, at worst, pretentious.

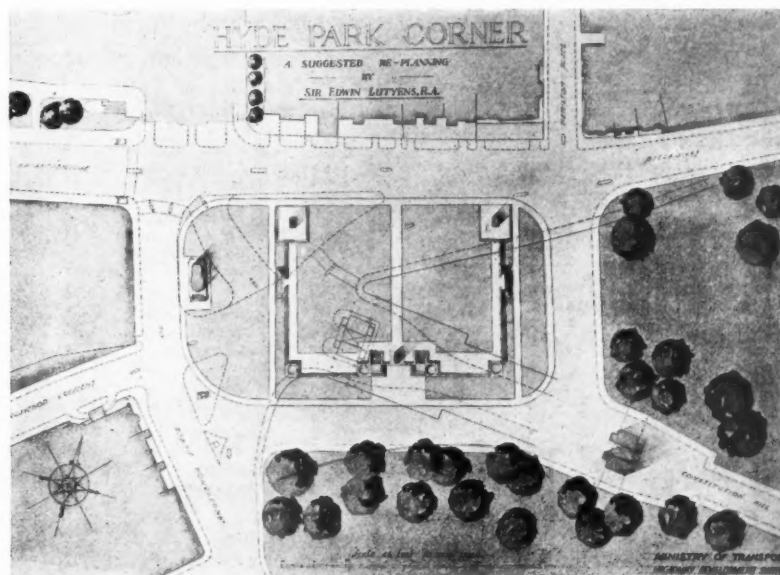
One wall has "featured" on it two large perspectives, both won in competition by a single architect. Instantly and infallibly one can name the two assessors for whose eyes each design was, respectively, prepared.

This may be one of the necessary evils of the competition system—it may be good business and, as such, inevitable in the world; but it is emphatically not the duty of the Academy, according to any possible interpretation of their Instrument of Foundation, thus ostentatiously to parade it before their public.

I am neither so young nor so foolish as to criticize those who were brought up in the ways of classicism for designing in the tradition which they should know best and which, presumably,

they respect most. It is their failure to do so that I am emphasizing; for neither by Guadet's immortal definition of the classic nor by any other can more than a fraction of the work shown be said to begin to conform to its own standards; and if I am hypercritical it should be remembered that I write of those who, officially, come from the cream of the profession. However, let us concentrate on the more satisfactory fraction.

Amongst the R.A.'s Sir Edwin Lutyens, even if he has failed to present us with his annual *tour-de-force* or *succès fou*, has managed to give us one or two welcome spots of brightness in the gloom. He, at any rate, has command of the full range of the classic medium, and if the Irish National War Memorial (1294 and 1299) is twenty years late, that is not Sir Edwin's fault; on the contrary it must give him a certain



Model of Hyde Park Corner as replanned to relieve traffic congestion: lay-out plan. By Sir Edwin Lutyens, R.A., and Sir Charles Bressey. (No. 1398.) Photographs of the model showing the suggested replanning and the site as it is today are reproduced on page 753.

ARCHITECTURE AT THE

ironic pleasure in view of an almost forgotten controversy of his youth, to build this very graceful bridge over the Liffey. Sir Edwin's scheme for a new lay-out at Hyde Park Corner (1398) is efficient, but less exciting than I had hoped. The steep slope hardly shows on such a small scale model; actually the scheme would, I feel certain, suffer from it. The Campion Hall Chapel, Oxford (1273) has, internally, some really lovely colour, but honestly, Sir Edwin, we are a little tired of those viceregal columns.

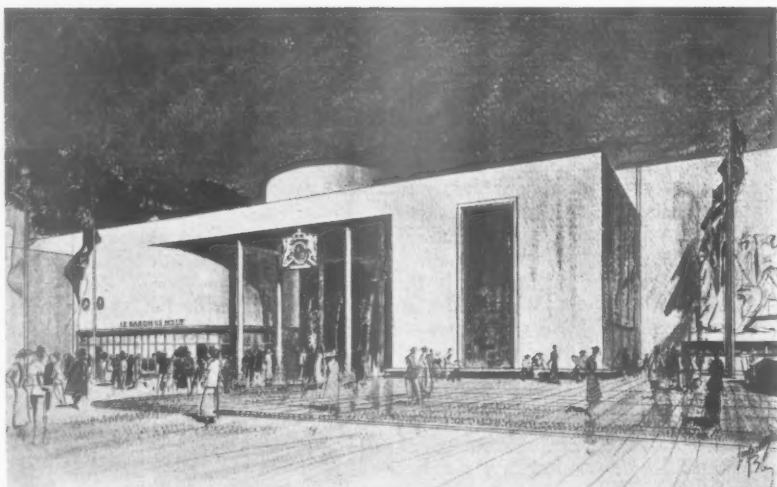
The public should take a great interest in discovering what they are to have as a substitute for the old Adelphi and Mr. Farey's skilful perspective of Mr. Hamp's design (1270) should not, therefore, go unmentioned. Another building of major interest is, of course, the British Pavilion at the Paris Exhibition (1285) designed by Mr. Oliver Hill. The rather excessive solidity which was so apparent in the earlier drawings seems to have gone in Mr. Harvey's perspectives and the splash of well-placed colour on the soffit of the entrance is, I think, admirable.

The centre of the long wall is largely occupied by some exquisite ink drawings of Mr. Vincent Harris's new government offices in Whitehall (1336). Mr. Harris has made several improvements since his designs first appeared. His whole scheme can also be faintly discerned in the distance of a really lovely sketch, by Walcot, of Inigo Jones's Banqueting House (1331).

The only other design of outstanding importance is the new County Hall, Hertford (1404), by James, Bywaters and Rowland Pierce. If it does not establish, as Hilversum and Stockholm did, a new ideology in municipal design, it is an altogether delightful building, fulfilling its functions efficiently, and yet fitting simply and naturally into its setting. One can hardly ask more of building.

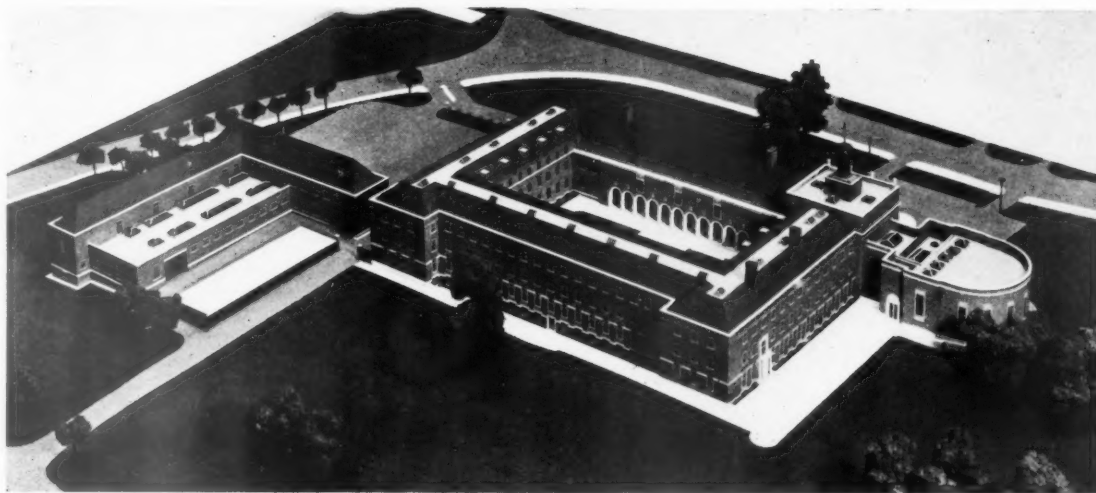
There is not very much ecclesiastical architecture, although the stained glass is useful, as always, for filling up the corners. Mr. Adrian Gilbert Scott submits an interior and an exterior of Cairo Cathedral (1272 and 1277); its more or less Byzantine forms are not unsuitable to its position on the map, but family traits would break out in the tower. The church at Alwoodley, Leeds (1283), by Messrs. Alban Caroe and Aubyn Robinson, is a rather pleasant essay inspired by Yorkshire vernacular, and beautifully drawn by Mr. Winston Walker.

Mr. William A. Ross has designed a large Georgian house for the accommodation of the officers' mess at Aldershot (1274), and gives us a new interpretation of the hipped roof behind a parapet adorned with vases—a theme which Lutyens handled with such artistry, at Temple Dinsley, thirty years ago. Mr. Charles W. Long exhibits, nine years late, a handsome

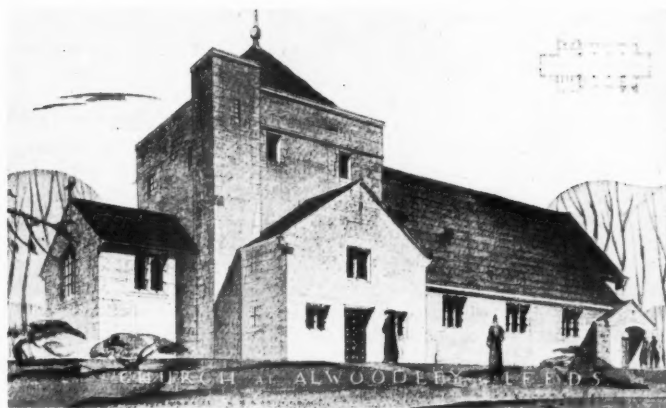


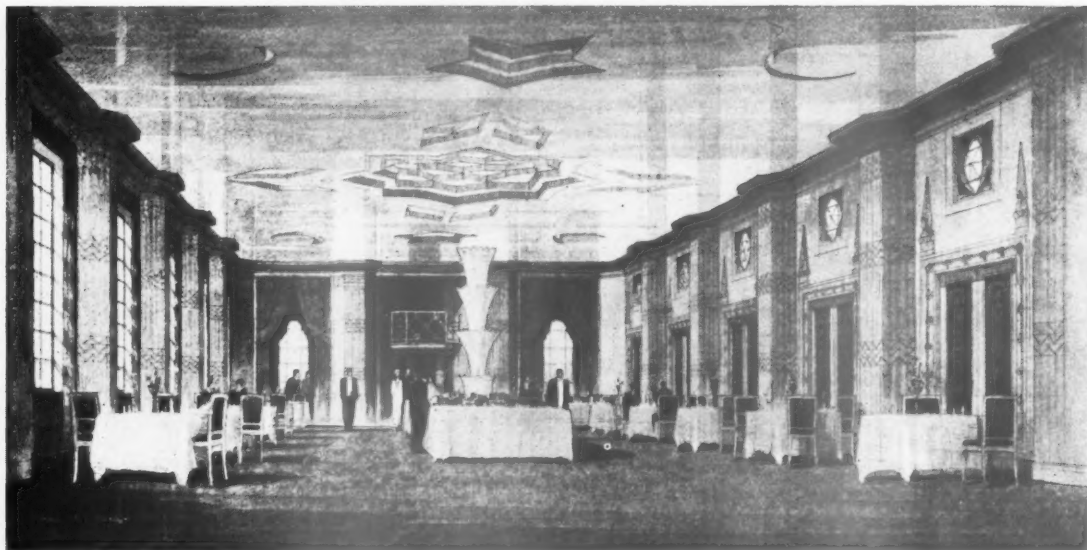
Top: *The Adelphi*. By Stanley Hamp. Perspective by Cyril A. Farey. (No. 1270.) Centre: *British Pavilion, Paris International Exhibition, 1937*. By Oliver Hill. Perspective by J. D. M. Harvey. (No. 1285.) Bottom: *Whitehall*: pencil drawing by William Walcot. (No. 1331.)

ROYAL ACADEMY EXHIBITION



Above: Model of New County Hall for Hertfordshire at Hertford. By James and Bywaters and Rowland Pierce. The model was executed by Kenneth McCutcheon. (No. 1404.) Right: New Church at Alwoodley, Leeds. By Alban Caroe and Aubyn Robinson. Perspective by Winston Walker (No. 1283). Below: Officers' Mess and Quarters, Aldershot Camp, Blackdown. By William A. Ross. Drawing by I. M. Pritchard. The photograph is reproduced by permission of the War Office and H.M. Stationery Office (No. 1274). Also, Cairo Cathedral. By A. Gilbert Scott. Perspective by J. Le June (No. 1277).





perspective of Victoria House, Southampton Row (1276)—good British steel well wrapped up in good Ionic flutes. There is also some work by Sir Edwin Cooper, the new R.A.

Messrs. Curtis Green and Partners, and W. H. Hamlyn, show four schemes of interior decoration for the Queen's Hotel, Leeds (1329, 1332, 1340, 1341). The traditions for work of this kind, i.e. provincial hotel interiors, are most carefully adhered to, and both the architects' clients and the hotel "patrons" will, I feel sure, be satisfied.

Sir Herbert Baker gives us a new Dean's Yard (1311) to look forward to and also shows a perspective of the Royal Empire Society's new building in Northumberland Avenue (1323) for which no more suitable architect than Sir Herbert could have been found.

Mr. McMorran's new Municipal Buildings at York Castle (1374) I found attractive, but, if I remember rightly, he will find a much more satisfactory cupola on Norman Shaw's job just round the corner. I am sorry that there is not more work by Messrs. Adams, Holden and Pearson; what there is has the quality which we have learnt to expect from them, although the perspective of Mr. Holden's Senate Room at the University of London (1348) hardly does justice to the rich colour values of the original.

Everyone who is sensitive to the simple charm arising out of the skilful use of simple materials in the right way will have regretted the totally unnecessary destruction of the old gateway to St. James's, Piccadilly (1320) to make way for coronation seats. Sir Reginald

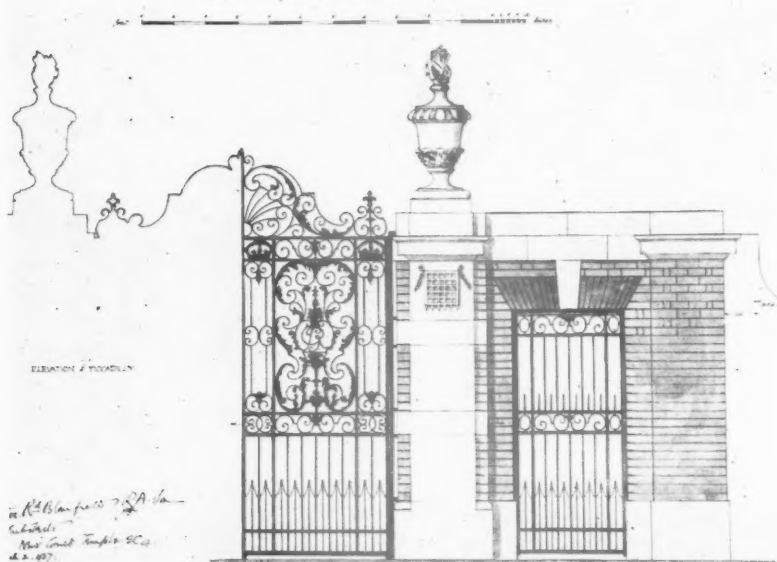
Blomfield has aided and abetted by his design for new gates in bronze and new gate piers with pots on top. His design may be seen at the Royal Academy. I am told that the gate is to be replaced. I hope my information is correct, but I shouldn't be surprised if it isn't.

So much for the architectural room. One other exhibit has great architectural interest, however, and that is the really magnificent bronze lion (1413) which Mr. Hardiman has made for Messrs. James and Pierce's city offices at Norwich. It has all the force of some great Byzantine beast and yet is essentially modern and most admirably in sympathy with the spirit of the building of which it is to form a part.

Which is all I can find to say.

ST JAMES' CHURCH PICCADILLY

New Entrance Gates & Piers (1320) and

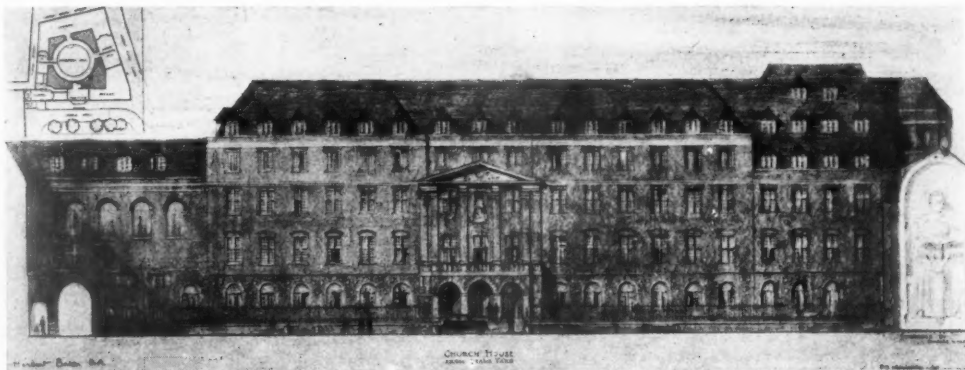


Above: Queen's Hotel, Leeds: the Grill Room. By W. Curtis Green, R.A., and Partners and W. H. Hamlyn (Associated Architects). Perspective by Cyril A. Farey. (No. 1329.)

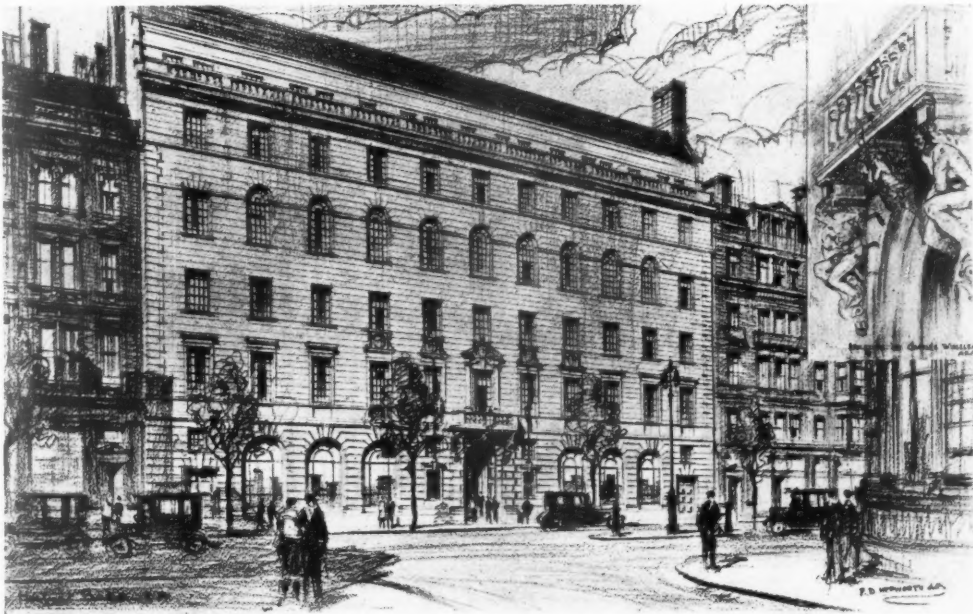
Left: Design for New Entrance Gates, St. James's Church, Piccadilly, W. By Sir Reginald Blomfield, R.A., and Son. Drawing by Sir Reginald Blomfield. (No. 1320.)

ROYAL ACADEMY EXHIBITION

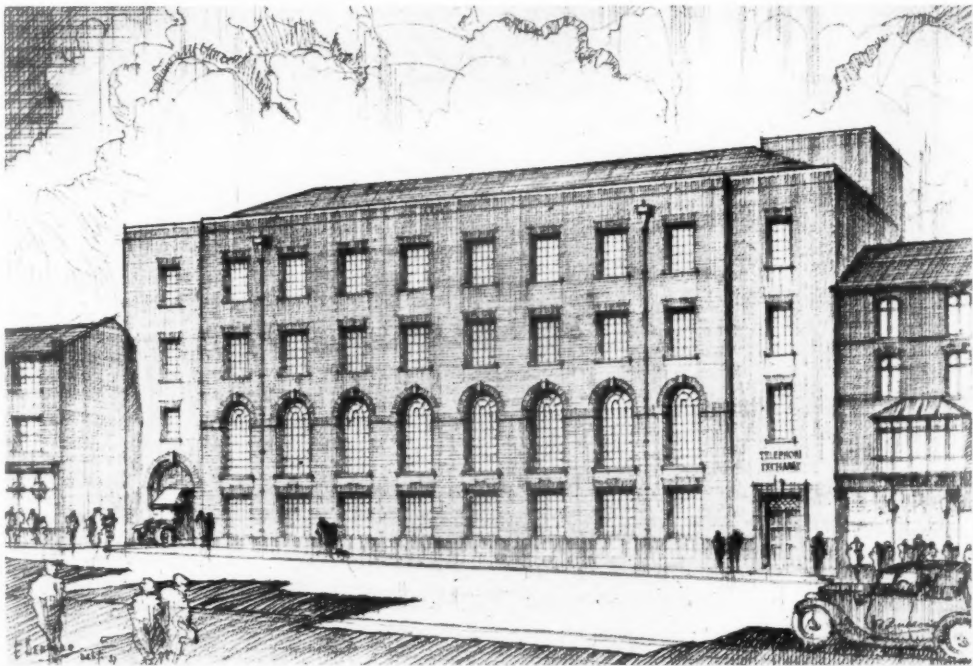
Church House, Westminster: Elevation from Dean's Yard. By Sir Herbert Baker, R.A. Sculpture by Charles Wheeler, A.R.A. Drawing by P. D. Hepworth. (No. 1311.)



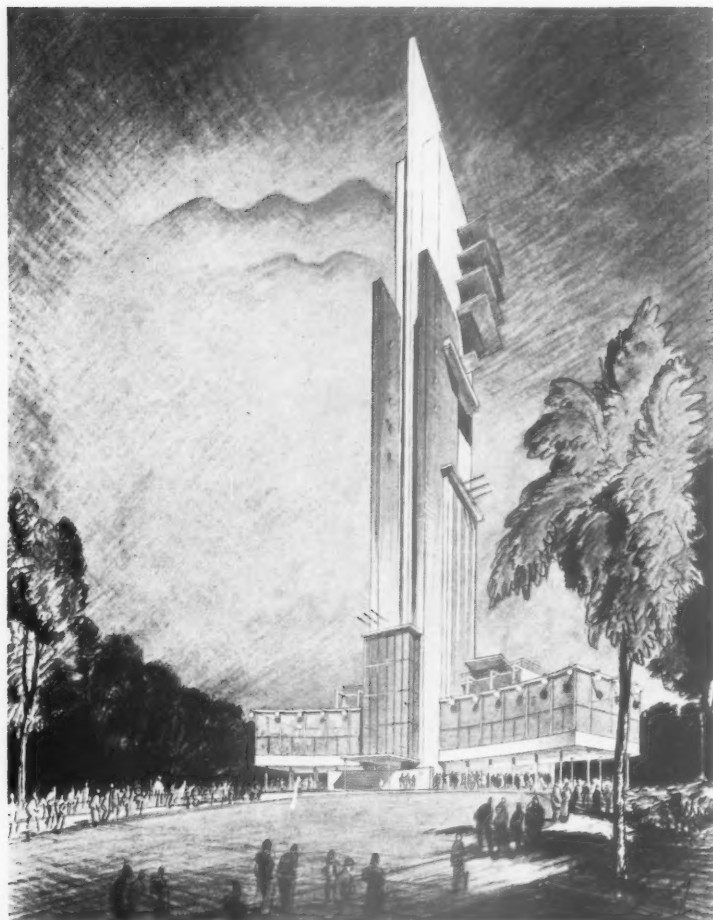
The Royal Empire Society, Northumberland Avenue, W.C. By Sir Herbert Baker, R.A. Sculpture by Charles Wheeler, A.R.A. Perspective by P. D. Hepworth. (No. 1323.)



Nottingham Central Telephone Exchange. By Archibald Bulloch. Perspective by E. Bedford. (No. 1327.)



ARCHITECTURE AT THE R.A. EXHIBITION

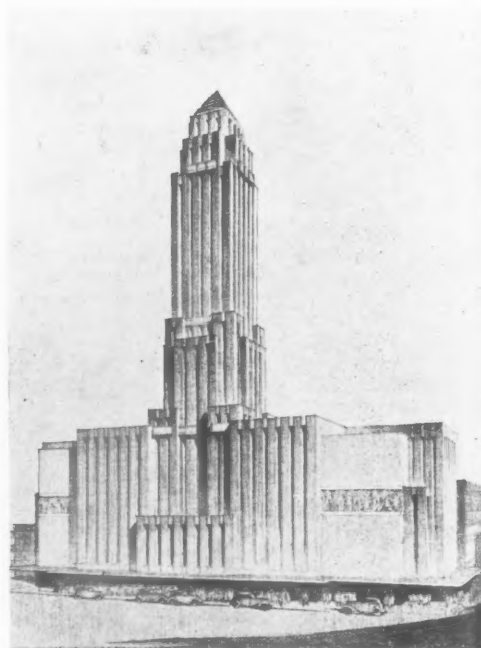


Above : Empire Exhibition, Glasgow, 1938 : proposed Tower. By Thomas S. Tait (Sir John Burnet, R.A., Tait and Long). Perspective by J. D. M. Harvey. (No. 1369.)

Below : St. Dunstan's Convalescent Home, Brighton. By Francis Lorne (Sir John Burnet, R.A., Tait and Lorne). Perspective by J. D. M. Harvey. (No. 1360.)



London County Hall Extension : view of Central Roadway from York Road, S.E. By Edwin P. Wheeler and F. R. Hiorns. (Consulting architect, Sir Giles Gilbert Scott, R.A.) Perspective by Elizabeth Smeall. (No. 1389.)



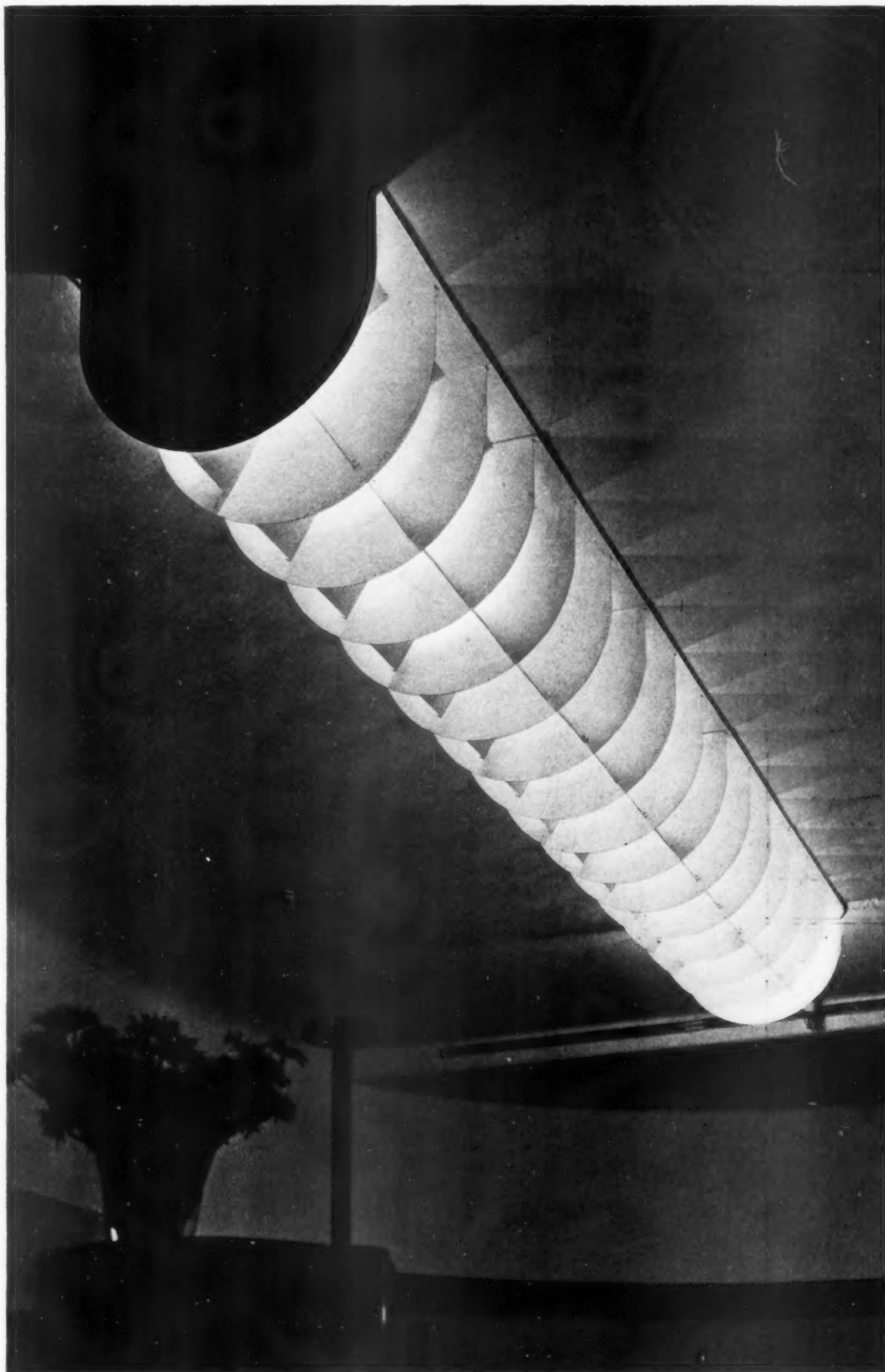
New Stadium and Club, Albert Embankment, S.W. By Alfred and David Ospalak. Perspective by R. Scott Cockerell. (No. 1301.)

WORKING DETAILS : 535

LIGHT FITTING

• SIMPSON'S STORE, PICCADILLY, W. •

JOSEPH EMBERTON



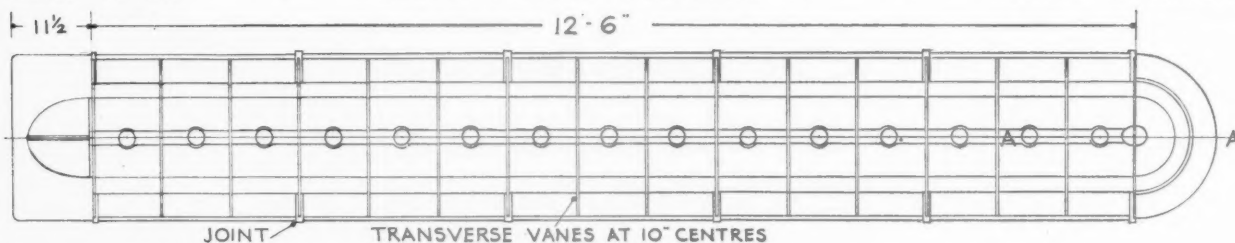
The light fitting is in the gift department. The department is small and this fitting occupies the centre of the ceiling. It consists of a series of transverse vanes in lead-coated iron, cellulose sprayed. Between these are subsidiary vanes, with 60-watt bulbs placed centrally to distribute light of the same intensity in all directions. Details are shown overleaf.

WORKING DETAILS : 536

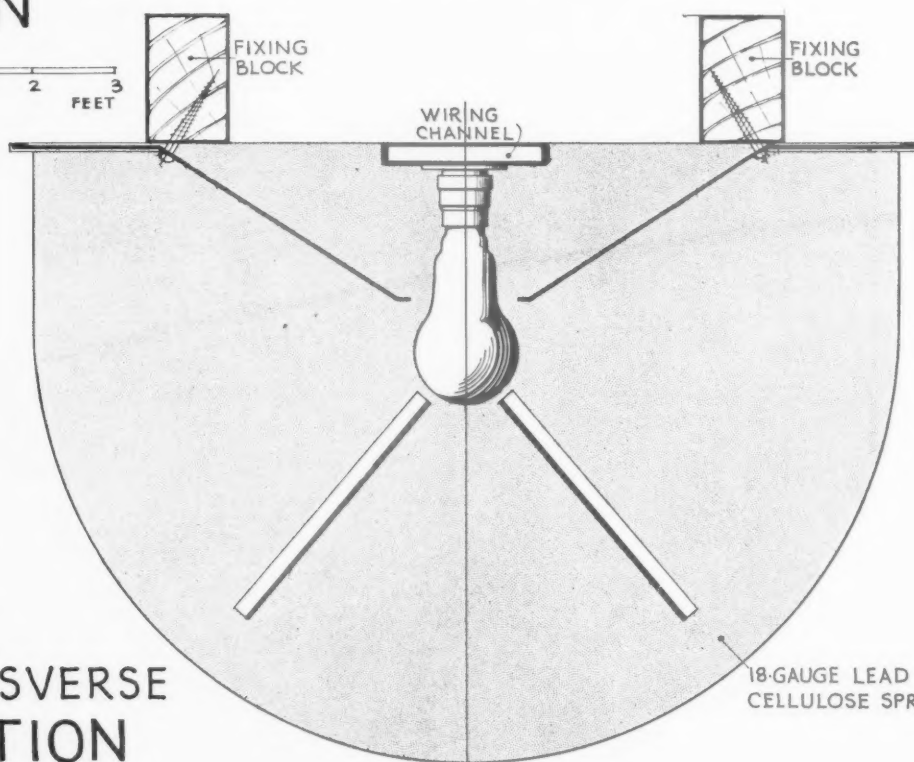
LIGHT FITTING

SIMPSON'S STORE, PICCADILLY, W.

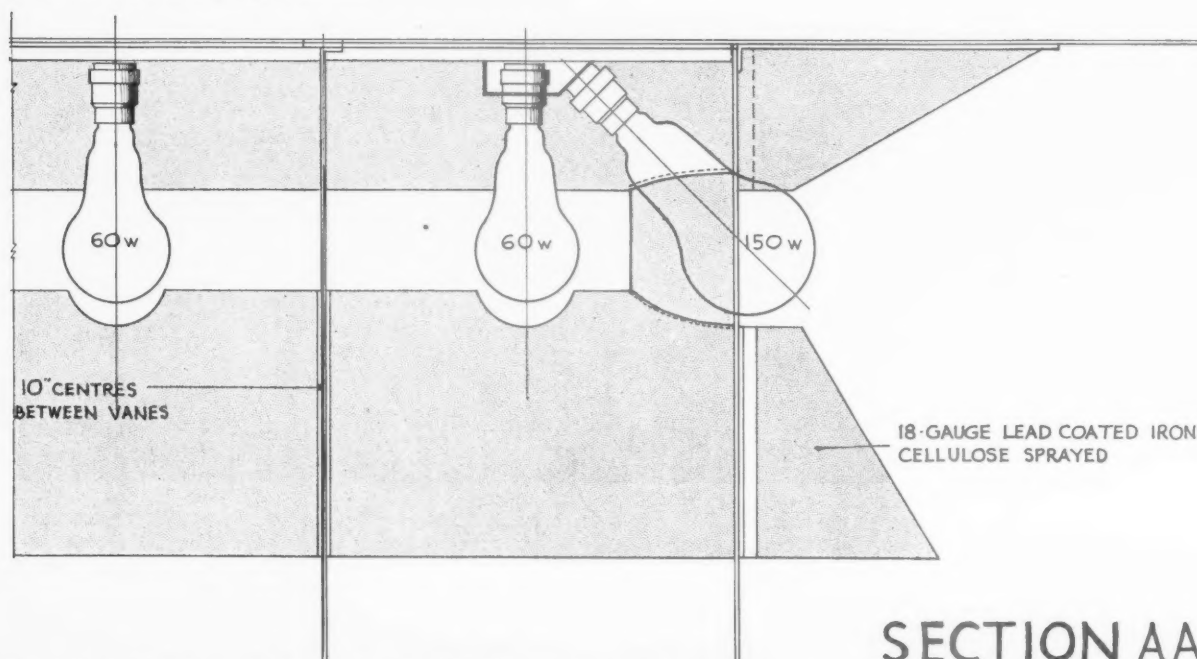
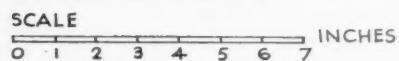
JOSEPH EMBERTON



PLAN



TRANSVERSE SECTION



Detailed plan and sections of the light fitting illustrated overleaf.

WORKING DETAILS : 537

HEATING • BOW STREET POLICE COURT • G. MACKENZIE TRENCH

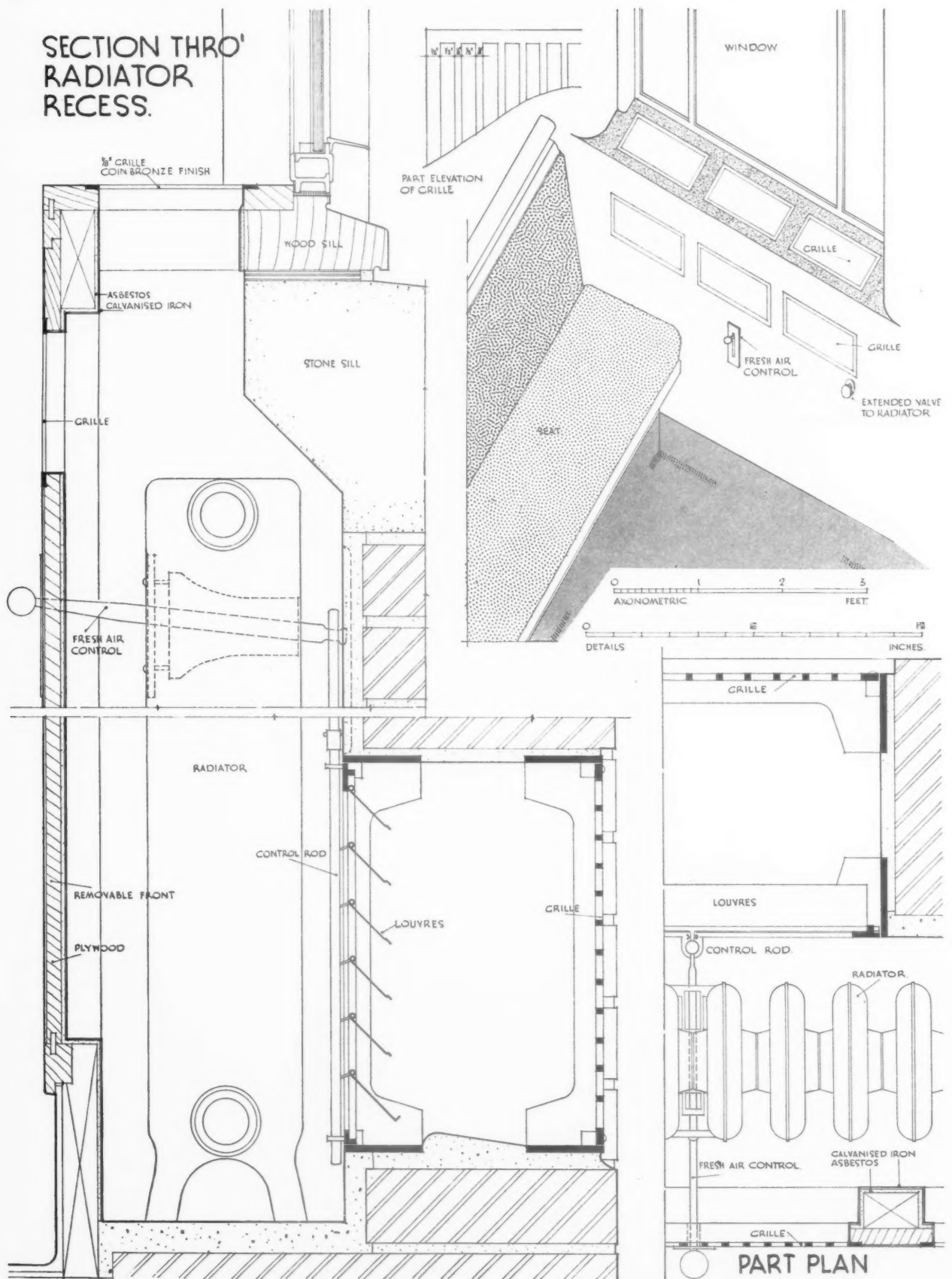


The heating is by radiators set in recesses under the windows. An air inlet is provided to each radiator in the external wall, and all fresh air is drawn over these radiators before entering the court.

The radiator recess is faced with a removable front in Australian walnut plywood, the grilles and control knob being finished in bronze. Details appear overleaf.

WORKING DETAILS : 538

HEATING • BOW STREET POLICE COURT • G. MACKENZIE TRENCH



Axonometric and details of the radiator recess illustrated overleaf.

The Architects' Journal Library of Planned Information



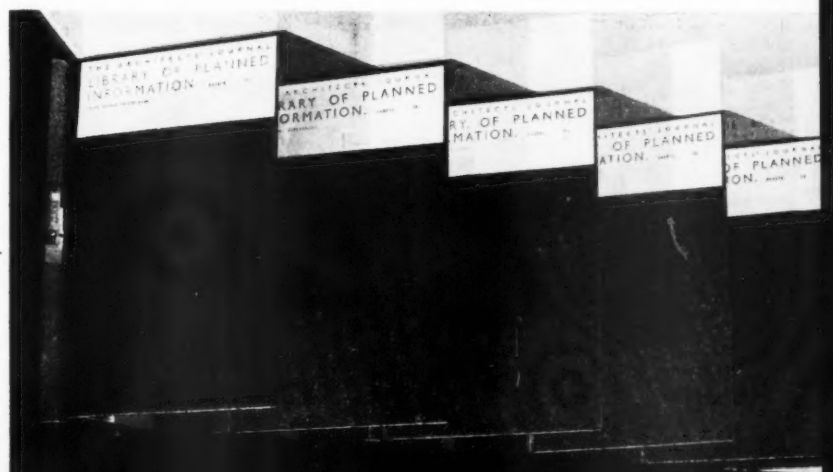
INFORMATION SHEET
S U P P L E M E N T

S H E E T S I N T H I S I S S U E

5 0 5 Aluminium

5 0 6 Approximate Estimating—XIII

5 0 7 Plumbing: Jointing of Copper Pipe



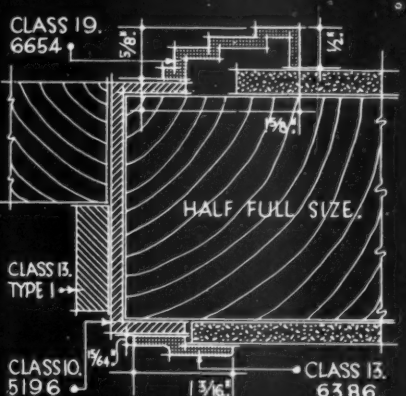
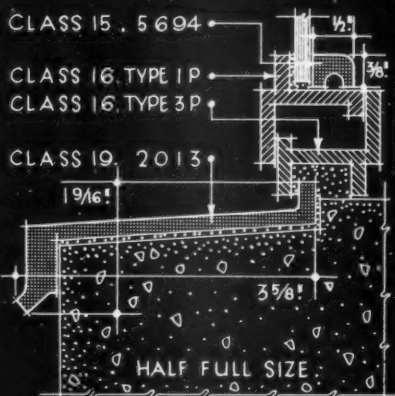
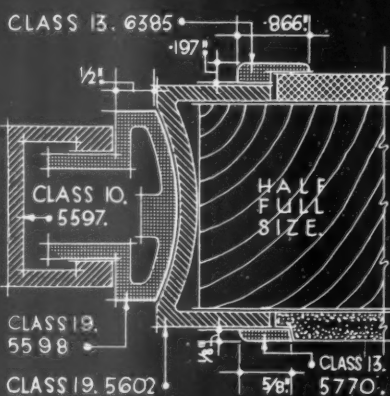
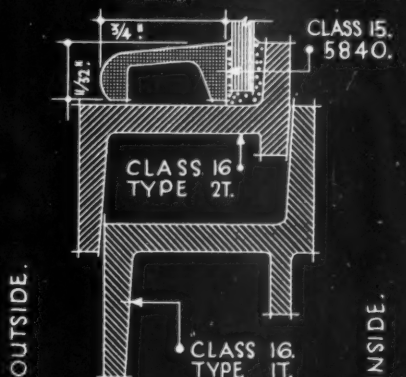
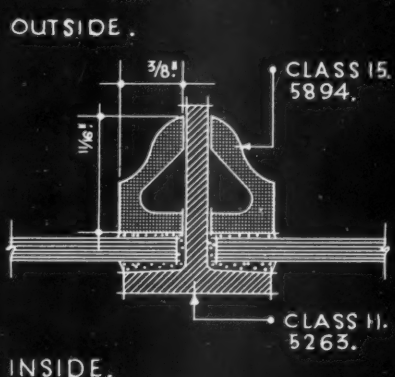
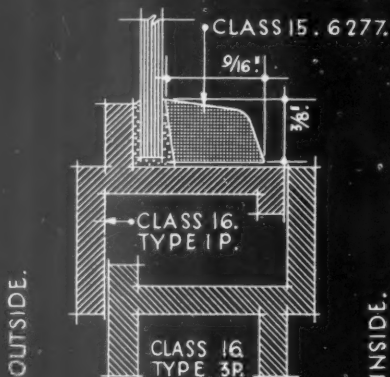
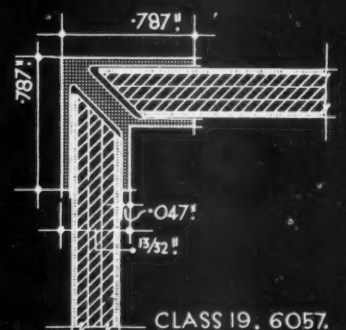
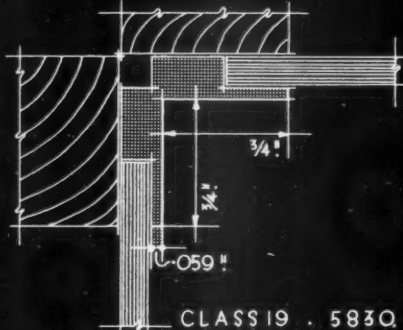
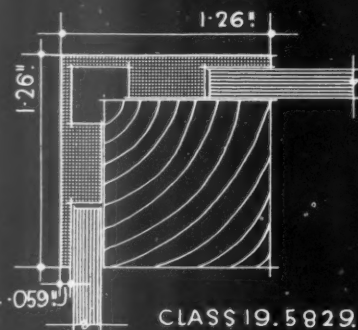
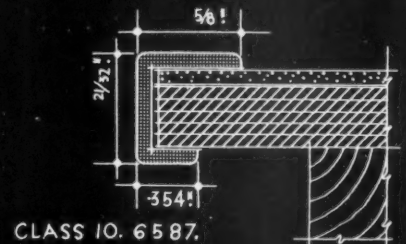
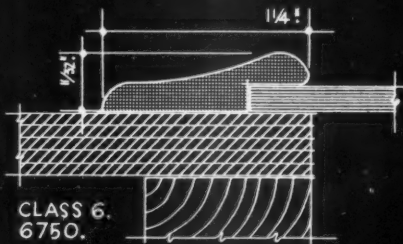
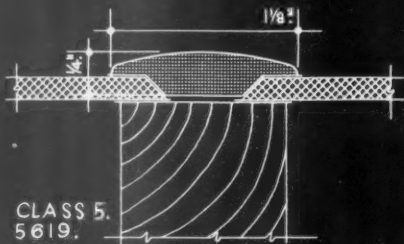
Sheets Issued since Index :

- 401 : Plumbing to Baths
- 402 : Waterproofing
- 403 : Asbestos-aluminium Foil—I
- 404 : Roofing
- 405 : Joinery
- 406 : Asbestos-aluminium Foil—II
- 407 : Roofing
- 408 : Joinery
- 409 : Rubber-faced Building Slabs
- 410 : Places of Public Entertainment—II
- 411 : Electric Switchgear
- 412 : Lead Soakers to Valleys
- 413 : Plumbing in Welded Copper Pipe
- 414 : Electric Switchgear
- 415 : Electric Switchgear
- 416 : Insulating Board
- 417 : Work on Glass
- 418 : Plumbing in Welded Copper Pipe
- 419 : Places of Public Entertainment—III
- 420 : Tentest Metal Cover Strip
- 421 : Wood Preservatives
- 422 : Welding Sheet Copper Work
- 423 : Garages and Drives—II
- 424 : Roof Glazing
- 425 : Places of Public Entertainment—IV
- 426 : Asbestos-cement Roofing Tiles
- 427 : Asbestos-cement Roofing Tiles
- 428 : Welding Sheet Copper Work
- 429 : Flat Roofing
- 430 : Asbestos-cement Roofing Tiles
- 431 : Automatic Boilers
- 432 : Plumbing
- 433 : Places of Public Entertainment—V
- 434 : Plumbing
- 435 : Lifts—I
- 436 : Lead Soakers to Hips
- 437 : Coloured Cement Renderings
- 438 : Wallboards
- 439 : Wall Finishes
- 440 : Roofing
- 441 : Sash Operating Gear
- 442 : Roofing
- 443 : Wallboards
- 444 : Rainwater Goods and Fittings—I
- 445 : Roofing
- 446 : Rainwater Goods and Fittings—II
- 447 : Bathroom Cabinets
- 448 : Roof Glazing
- 449 : Places of Public Entertainment—VI
- 450 : Telephone Cabinets
- 451 : Hardboard
- 452 : Escalators
- 453 : Automatic Boilers
- 454 : Places of Public Entertainment—VII
- 455 : Places of Public Entertainment—VIII
- 456 : Ellipses
- 457 : Roofing
- 458 : Sanitary Equipment
- 459 : Hoods and Canopies
- 460 : Expansion Joints
- 461 : Roof Pitches, etc.
- 462 : Gas Refrigerators—I
- 463 : Asbestos Cement Rubber Floor Tiles
- 464 : Approximate Estimating—I
- 465 : Gas Refrigerators—II
- 466 : Approximate Estimating—II
- 467 : Gas Refrigerators—III
- 468 : Approximate Estimating—III
- 469 : Gas Refrigerators—IV
- 470 : Stopstart Glazing Compound
- 471 : Gas Cookers
- 472 : Lead Insulation against X-Rays
- 473 : Electrical Equipment—I
- 474 : Asbestos-Cement Ventilating Ducts
- 475 : Asbestos-Cement Glazed Panels
- 476 : Approximate Estimating—IV
- 477 : Monel Metal Sink Units
- 478 : Approximate Estimating—V
- 479 : Roofing
- 480 : Approximate Estimating—VI
- 481 : Lead Flashings
- 482 : Approximate Estimating—VII
- 483 : Flue Linings
- 484 : Plumbing Systems
- 485 : Partition Blocks
- 486 : Elementary Schools—I
- 487 : Plumbing
- 488 : Approximate Estimating—VIII
- 489 : Sliding and Folding Windows
- 490 : Flue Linings
- 491 : Approximate Estimating—IX
- 492 : Aluminium
- 493 : Construction of Stepped Balconies
- 494 : Approximate Estimating—X
- 495 : Sheet Steel Office Equipment
- 496 : Roofing—Chimney Flashings
- 497 : Approximate Estimating—XI
- 498 : Roof Insulating Blocks
- 499 : Heating
- 500 : Chimney Stacks—Weather Proofing
- 501 : Aluminium
- 502 : Fixing Blocks
- 503 : Approximate Estimating—XII
- 504 : Aluminium

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TYPICAL EXTRUDED SECTIONS FOR COVER MOULDS, ANGLE MOULDS, ETC.: Unless otherwise noted the sections given on this sheet are drawn full size.

FIXING. The beads etc. may be fixed with aluminium screws, or where used with wood or similar material, with pins attached to the back of the moulding. For the purpose of illustration a possible application of each section is indicated.



DIES: The examples shown here represent only a small selection from the wide range of dies which is held in stock. New dies to fulfil any requirements within the maximum dimension of 8\"

Information from the Northern Aluminium Company Limited.

INFORMATION SHEET: ALUMINIUM: N° 4: TYPICAL EXTRUDED SECTIONS.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1. *Drawn by A. Bagnall*

THE ARCHITECTS' JOURNAL
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INFORMATION SHEET

• 505 •

ALUMINIUM

General :

This is the fourth of a series of Information Sheets dealing with the architectural uses of aluminium and sets out typical examples of extruded cover and angle moulds.

The sections illustrated represent only a small selection from the wide range of dies kept in stock, fuller classification being given in the *Noral Handbook*, Section C.

Although the examples given here are not intended for any specific building work, a possible use for each is indicated. In addition to the shapes drawn, there are other standard die shapes, such as Z's, T's and miscellaneous architectural sections, etc., in considerable variety. New dies to suit any requirements (within the limits controlling the design of all extruded sections) can be made at a small cost, or in the case of large orders, at no extra cost.

Maximum sizes :

Sections up to 8 ins. maximum dimension can be extruded in all alloys. Most of the extruded sections of individual alloys, however, are able to be produced only within certain manufacturing limits of thickness, cross sectional area and weight per piece. Where not ordered otherwise, sections are supplied in 12 ft. lengths with a proportion of shorter lengths and to certain guaranteed dimensional tolerances.

Extruded sections :

Aluminium and its alloys in the form of extruded sections offer a useful medium to the designer of all forms of construction. Owing to the smoothness of finish, the fineness of structure and the intricacy of detail in which they can be produced, in many cases expensive machining operations can be eliminated, and rate of production greatly increased by the adoption of a suitable section combined with due consideration of the right grade of material. Moreover, weight can be greatly reduced, and resistance to atmospheric and other corrosion improved, by the substitution of aluminium and its alloys for other metals.

The minimum quantity that can normally be supplied from each die is 25 pounds. Requirements for quantities less than 25 pounds should be the subject of special enquiry.

Surface Finishes :

The scope of design in aluminium and aluminium alloys is greatly increased by the large variety of standard surface finishes which

may be used either singly or in conjunction with one another.

The majority of aluminium alloys, particularly NA. 2S, NA. 3S, NA. 51S, NA. 55S, and NA. 57S are suitable for anodic oxidation and when used with either the alumilite or other processes give excellent results in natural or coloured finishes.

Sand-blasting (coarse, medium or fine) may be applied to castings, sections and heavy gauge sheets, which may be subsequently anodized.

Anodized aluminium is metal with an electrolytically formed oxide coating which greatly increases its corrosion resistance properties. This coating or film is hard and resistant to abrasion, and a wide variety of coloured oxide finishes can be produced.

The dark, slate-grey colour of a *de-plated finish* is obtained by an electrolytic treatment of aluminium-silicon alloys after they have been sand-blasted. The silicon particles in the alloy are exposed and an oxide film formed on the aluminium. At a distance the appearance is similar to that of window glass, and this finish is used extensively for spandrels.

A *high-lighted finish* is obtained after sand-blasting by means of abrasive wheels made from sewed muslin buffs.

Wire brush finish is produced by rotary wire brushes with wires, the sizes of which depend on the type of finish required.

A surface with less reflectivity than one highly polished is a *satén finish* produced on castings which have been prepared as described under High-lighting. The surfaces are then buffed with muslin or felt wheels using greaseless polishing compounds.

An *anodized high-light finish* is obtained by anodizing a casting which has been previously subjected to a high-lighted finish. This results in a slate-grey coloured background with the high lights taking on a satén-grey finish.

Painted aluminium architectural work has an advantage over painted steelwork in that paint film firmly adheres to it and corrosion does not creep, with consequent flaking of the paint. Thus the maintenance costs are very much reduced.

It is advisable to avoid welds in structures which have to be subsequently anodized owing to the fact that anodizing emphasizes the difference in colour between the original and welded metal. With heat-treatable alloys which are heat-treated after welding, this discoloration is largely prevented.

Previous Sheets :

Previous Sheets in this series dealing with the architectural uses of aluminium were Nos. 492, 501, and 504.

Information from : The Northern Aluminium Company, Ltd.

Address : Bush House, Aldwych, London, W.C.2

Telephone : Temple Bar 8844

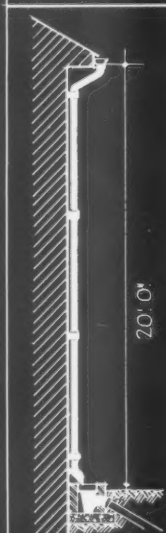
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RAINWATER PIPES
AND DRAINAGE.PRICES ARE THOSE CURRENT
DURING JANUARY, 1937.

APPROXIMATE ESTIMATING.

The following are approximate prices for
rainwater pipes and drainage work. Prices
are for a medium sized job in the London area
and include for overhead charges and profit.

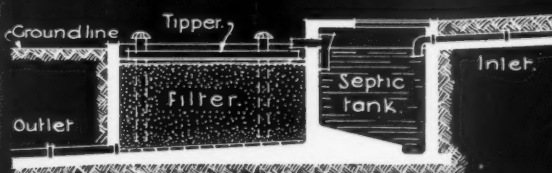
RAINWATER PIPES.

20' 0" LENGTH OF CAST IRON RAIN-
WATER PIPE FIXED AND PAINTED IN-
CLUDING GUTTER OUTLET AND SWAN
NECK AND STONWARE TRAPPED CULLEY
WITH RENDERED BRICK CURB.

	each.
3" diameter pipe	£ 2: 11: 0
4" diameter pipe	£ 3: 0: 0
4" x 3" rectangular pipe ..	£ 4: 10: 0

ADD FOR :	
Each 12" additional length of 3" diameter pipe	1: 7½
Ditto 4" dia. pipe	2: 0
Ditto 4" x 3" pipe	3: 3
Rainwater head, P.C. 15/- each	18: 0

RAINWATER AND SEWAGE DISPOSAL.



	each.
Rainwater soakaways 5' 0" deep	17: 6
Ditto 10' 0" deep	£ 2: 12: 6
Septic tank and filter beds for a small house	£ 50: 0: 0
Ditto for a large house (varies considerably) up to	£ 250: 0: 0
Connections to sewer in a country road	£ 10: 0: 0
Ditto in a town street, from	£ 15: 0: 0

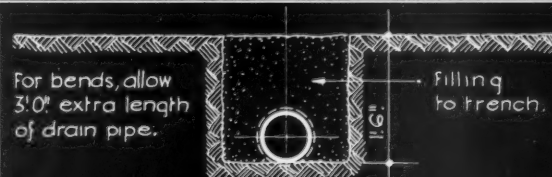
MANHOLES.



	each.
Small manhole 2' 0" deep to invert with one branch channel	£ 4: 15: 0
Ditto with cast iron inspection chamber	£ 5: 15: 0
Large manhole 2' 0" deep to invert with six branch channels	£ 8: 14: 0
Ditto with cast iron inspection chamber	£ 10: 14: 0

ADD FOR :	
Each 12" additional depth to small manhole (not exceeding 5' 0" deep)	16: 6
Ditto to small manhole (exceed- ing 5' 0" deep)	£ 1: 0: 6
Ditto to large manhole (not exceeding 5' 0" deep)	£ 1: 4: 6
Ditto to large manhole (exceed- ing 5' 0" deep)	£ 1: 9: 6
4" stoneware intercepting trap	£ 1: 1: 0
6" ditto	£ 1: 7: 6
4" cast iron intercepting trap	£ 2: 0: 0
6" ditto	£ 3: 0: 0
Fresh air inlet	£ 1: 0: 0

DRAINS.

DRAINS LAID COMPLETE, INCLUDING EXCAVATING
TRENCH 18" DEEP AND FILLING. (NO CONCRETE BEDS).

	PER FOOT RUN.
3" diameter agricultural pipe	1: 4
4" ditto	1: 5½
4" diameter salt glazed stoneware pipe	2: 3
6" ditto	2: 9
4" diameter cast iron pipe	3: 8
6" ditto	4: 9

ADD FOR :	
Clinker bed for agricultural drains	1: 2
Concrete bed and benching	11d
Concrete bed and surround	1: 10
Each 12" additional depth of trench, (not exceeding 5' 0" deep)	8d
Ditto (exceeding 5' 0" deep)	1: 2

Figures by Davis and Belfield, P.P.A.S.I., Chartered Quantity Surveyors.

INFORMATION SHEET : UNIT SYSTEM FOR APPROXIMATE ESTIMATING: 13.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WCI Oscar A. Bayne

THE ARCHITECTS' JOURNAL
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INFORMATION SHEET

• 506 •

APPROXIMATE
ESTIMATING—XIIISubject: Unit system for approximate
estimating

This series of Sheets, taken as a whole, forms a complete system for the preparation of detailed estimates. Alternatively, less detailed estimates can rapidly be made, merely by multiplying the areas or quantities of the different component parts of the building by the appropriate unit prices, varied by judgment alone.

For all normal estimates, and whenever time permits, account should be taken of the difference in cost of the various types of finish, etc., shown with each typical form of construction. These have been kept to a minimum for the sake of simplicity, but other materials, if the prices are known, may easily be compared.

The system is not intended to replace the complicated pricing data necessary for a very close estimate, but it should, in all cases, prove more accurate than cubing, and it should be found particularly useful in alteration work, or work where the price per foot cube is not well established. An additional advantage is that firm estimates obtained for lifts, plumbing or other services, fittings, etc., can be used in conjunction with this system much more readily than with the cubing method.

This Sheet deals with typical examples of rainwater pipes and drainage, including septic tanks and connections to sewer. The cost of septic tanks depends on the number of sanitary fittings, the amount which they are likely to be used, and the nature and slope of the soil, etc., and accurate costs can only

be based on experience, and it is preferable to consult a specialist whenever possible. The cost of connections to sewers also varies according to the length of the connection, the depth of the sewer, and the nature of the roadway to be made good, etc., and judgment must be used in pricing this item.

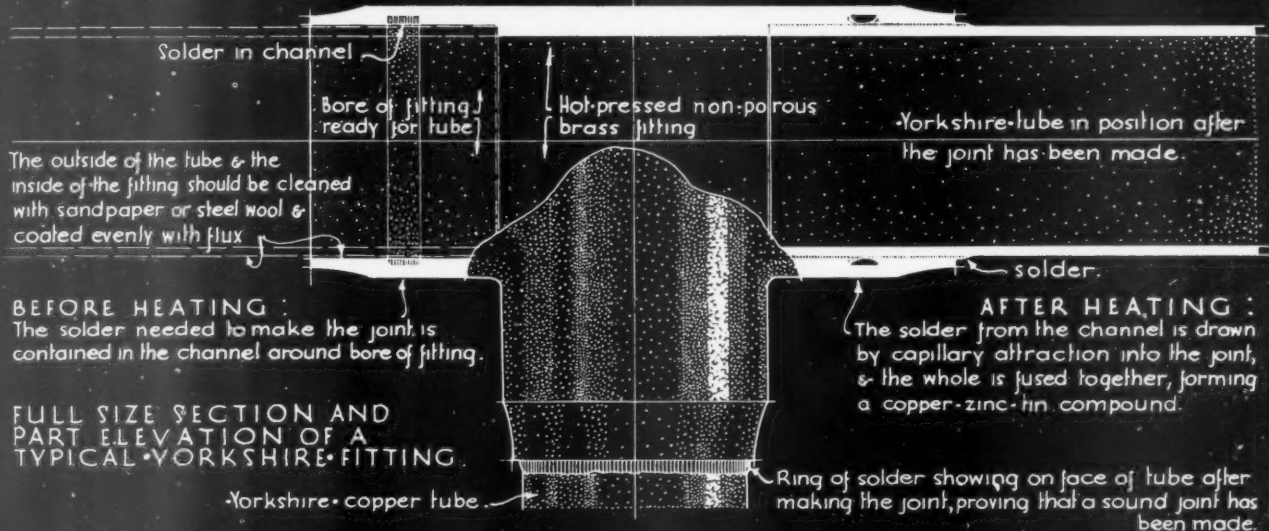
The example below gives the cost of rainwater pipes and combined drainage from a house to a deep sewer in a wide street.

	£	s.	d.
24 ft. 0 ins. lengths of 4 ins. rainwater pipe including gutter outlet and trapped gulley. (Typical example 60s. + 4 ft. 0 ins. extra length 8s.)			
4 lengths at 68s. ...	13	12	0
Small manholes 2 ft. 0 ins. deep No. 1 at 95s. ...	4	15	0
Large manholes 2 ft. 6 ins. deep. (174s. + extra depth 12s. 3d.) No. 1 at 186s. 3d. ...	9	6	3
Small manhole 3 ft. 0 in. deep (95s. + extra depth 16s. 6d.), with 4 ins. stoneware intercepting trap (21s.) No. 1 at 132s. 6d. ...	6	12	6
4 ins. stoneware main drain and trench average 2 ft. 6 ins. deep (2s. 3d. + extra depth 8d.) and concrete bed and benching (11d.) 40 ft. at 3s. 10d. ...	7	13	4
4 ins. stoneware branch drains and trench, average 18 ins. deep (2s. 3d.) and concrete bed and benching (11d.) 30 ft. at 3s. 2d. ...	4	15	0
Connection to deep sewer in wide street, say ...	25	0	0
Total ...	£71	14	1

Sheets Nos. 1-12 dealt with Ground Floors, Upper Floors, Roofs, Parapets and Eaves, Foundations, External and Internal Walls, Partitions, Doors and Windows, Staircases, Fireplaces and Chimney breasts, and Chimney stacks. The last Sheet of the series will deal with Services and Preliminaries.

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THE PRINCIPLE & SOME TYPES OF THE YORKSHIRE FITTING (Patent) FOR JOINTING LIGHT GAUGE COPPER TUBING.

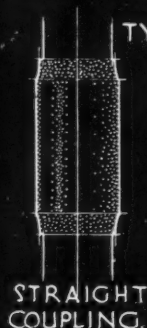


YORKSHIRE FITTINGS are made in all types and sizes from $\frac{1}{8}$ " to 4" bore.

All fittings are smoothly tapered down at junctions with the copper tubing, and are of simple design, without nuts or other external projections. For further details see back of this sheet.

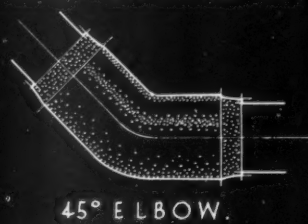


PITCHER TEE.

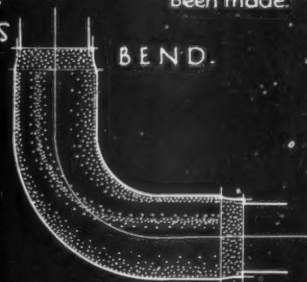


STRAIGHT COUPLING.

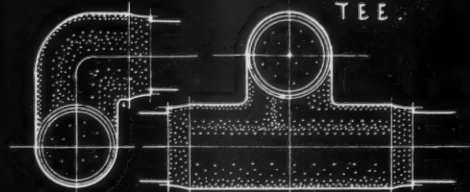
TYPICAL YORKSHIRE FITTINGS



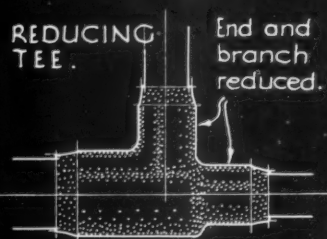
45° ELBOW.



BEND.



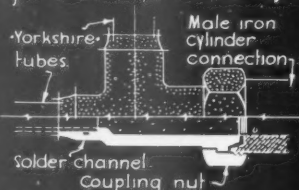
OFFSET TEE.



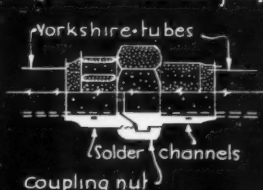
REDUCING TEE.

End and branch reduced.

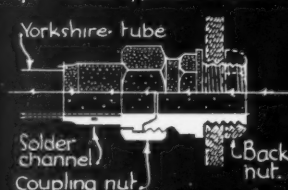
YORKSHIRE DISCONNECTING FITTINGS. (Shown $\frac{1}{2}$ " in section & $\frac{1}{2}$ " in elevation) Yorkshire-fittings can be broken & remade by the application of heat, without the addition of further solder, but special fittings are recommended for use where the piping will be disconnected frequently. Some typical disconnecting fittings are shown below.



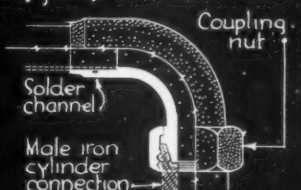
TEE, $\frac{1}{2}$ " to 2" BORE. Suitable for cylinders, etc..



DISCONNECTING UNION, $\frac{1}{2}$ " to 2 $\frac{1}{2}$ " BORE.



UNION CONNECTOR. $\frac{1}{2}$ " to 2" BORE.



BENT CONNECTION. $\frac{1}{2}$ " to 2" BORE. Suitable for cylinders, etc..

YORCWYTE TUBES. Tubes of this white metal alloy (white all through) form an alternative to plated installations and Yorkshire-Nickel Plated fittings are recommended for use with this alloy.

Installations may be chromium or nickel-plated throughout.

Information from the Yorkshire Copper Works Ltd.

INFORMATION SHEET: YORKSHIRE FITTINGS FOR LIGHT GAUGE COPPER TUBING
SIR JOHN BURNET TAIT AND LORNE ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WCI. *W. A. Bayne*

INFORMATION SHEET • 507 • PLUMBING: Jointing of Copper Pipe

THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION INFORMATION SHEET

• 507 •

PLUMBING: JOINTING OF COPPER PIPE

Subject: "Yorkshire" Fittings for Light-gauge Copper Tubing

The Principle of the Joint:

The law of capillary attraction is the basic principle on which the joints in Yorkshire fittings are designed. As the force of capillary attraction works independently of the law of gravity, the joint can be made in any position without affecting its efficiency.

Each arm of a Yorkshire fitting contains sufficient solder to make a perfect joint, and when heated above melting point it is drawn by capillary attraction into all parts of the joint, irrespective of the position of the joint.

The Fittings:

The diagrams on this Sheet illustrate some typical standard fittings and disconnecting fittings, and show the principle on which the solder joint is made.

Yorkshire fittings are made from solid and non-porous hot-pressed brass to accurate dimensions, and are of smooth finish inside and out. They are suitable for making joints and connections in light-gauge copper tubing wherever this is usable.

The standard Yorkshire fitting is connected with the tube by means of a very thin film of solder, and any joints can be taken apart and remade several times without damage to its efficiency; but where the joint will have to be disconnected repeatedly, it is advisable to use a Yorkshire Disconnecting fitting.

Range of Fittings:

Yorkshire fittings are made in sizes from $\frac{1}{8}$ in. to 4 ins. bore. The range includes straight and flanged connectors and couplings, adaptors, elbows, tees, bends, Y-branches, crosspieces, stop ends and reducing fittings of the standard and of the disconnecting type. The prices range between 9d. to 7s. 3d. respectively for the $\frac{1}{2}$ in. to 2 $\frac{1}{2}$ in. size of the straight coupling pieces, and 3s. to 24s. for the $\frac{1}{2}$ in. to 2 $\frac{1}{2}$ in. corner tee (not illustrated on this Sheet). Reference should be made to the catalogues issued by the manufacturers for a complete price list and specification of fittings.

The Yorkshire Joint:

Each arm of a standard Yorkshire fitting is provided with the correct amount of solder needed to make a joint. The solder is contained in a channel round the inside of the arm, and to make a joint it is only necessary to clean and coat with flux the outside of the tube and inside of the fitting and to apply heat. (The solder channels are shown on the full-size sectional diagram at the head of this Sheet, and the position of the solder is shown as it is before and after a joint has been made.)

When the solder is melted, it is drawn by capillary attraction from the channel into the space between the tube and the fitting, and completely fills it whatever position the fitting is in. The arm to be soldered should be as thoroughly and as evenly heated as practicable with an ordinary plumber's blow-lamp, though it is not essential to apply the flame to the entire circumference. It is impossible while using an ordinary plumber's blowlamp to spoil a Yorkshire joint by overheating it. Special asbestos mats for protecting paint and woodwork while joints are being made may be obtained from the manufacturers.

Heating should be continued until a complete ring of solder appears round the mouth of the fitting, as this shows that the joint is completely filled. When the joint has been made, it forms a copper-zinc-tin compound which is stronger than the tube itself by reason of the alloying of the film of solder with the tube and fitting. It needs no supervision and is immovable except by the application of further heat, and is unaffected by expansion, contraction or vibration, or the effects of frosty weather.

Re-making Joints:

Joints can easily be taken apart and remade several times without impairing their strength and without the necessity for adding fresh solder. To remake a joint it is only necessary to heat it again.

Disconnecting Fittings:

These are recommended for use in situations where the joint will be disconnected repeatedly. They are usually supplied with one or more arms of typical Yorkshire design, but the disconnecting arm has no solder channel and is fitted with a coupling nut. Four typical disconnecting fittings are illustrated on this sheet, in part-section, part-elevation, showing the principle on which they are constructed.

Special Finishes:

Fittings can be supplied polished or nickel or chromium-plated when they are to be used with specially finished tubes. For "Yorcwytte" white metal tubes (white all through), nickel-plated Yorkshire fittings are recommended.

Use of Yorkshire Fittings:

Yorkshire fittings are economical in labour costs owing to the simplicity of fixing them. They have been accepted for use by the British Water Works Association (J.C.S.W.R.) and by other authorities, and have been tested by the National Physical Laboratory. Details of these tests have been published and can be obtained from the manufacturers.

Patent:

The design of these fittings is covered by Patent No. 419,521.

Manufacturers: The Yorkshire Copper Works, Ltd.

Address: Pontefract Road, Stourton, Leeds, 10, and G.P.O. Box No. 166.

Telephone: Leeds 45431

London Office: (Building Section), 14 Norfolk Street, W.C.2

Telephone: Temple Bar 8696/7

S H O P S

A N D T H E

T R A D E

[BY A. EDWARD HAMMOND]

In the following article the author, a correspondent of many trade and shop-fitting periodicals, comments on the recent series of articles in the JOURNAL called "Shops" from the point of view of one in a position to know what the average shopkeeper wants in his premises. Some notes by Messrs. Bryan and Norman Westwood in reply to Mr. Hammond's criticisms are added at the end.

WHILE realizing that these articles have been written as guides for the architect rather than his client, I have endeavoured to study them critically from the retailer's point of view. Aided by a long experience of retailers' problems, particularly so far as service and display are concerned, I have analyzed each specialized phase dealt with by Messrs. Bryan and Norman Westwood, and now submit the following comments:

1. INTRODUCTION. — An important point has been overlooked in attempting the reconciliation of shop-front individuality and orderly minor architecture. If architects' efforts were concentrated upon windows until the ideal types were discovered for all classes of merchandise—right size, shape, etc.—surely a uniform surround could be designed to serve the needs of all trades, from motor showrooms to jewellery. In other words, design windows for merchandise display and shop-front individuality will take care of itself. If there were less striving after effect with shop-front design, and more concentration upon the requirements of display, there would be less "confusion and hypocrisy."

The authors go, I think, a little off the rails in their references to "working-class district 'Gentleman's Outfitters'." There are men's wear shops to be seen in Walworth Road and east of Aldgate Pump, and, if the authors will join me in a tour of window inspection, I think they will be rather surprised at the absence of "large pieces of rough card" and the presence of appeals to the imagination.

2. SITES AND SITE VALUES.—Excellent examples of uniformly designed shopping centres are shown in this section. It would be interesting to know whether the tenants of the shops concerned find the absence of aggressive signs and other "blasts of vulgarity" involve any real sacrifice.

3. SITES IN DETAIL.—(Note aside to authors: Gentlemen, your exclusive furniture shop is a beauty parlour.

Were you being facetious about the large windows for very small merchandise? [The mistake was the authors'—the ignorance ours.—Ed., A.J.]. In dealing with corner sites, I think it would have been helpful to have discussed more fully the relative values of the splayed display window and of the entrance on the angle of two frontages. The point is a highly controversial one, but the authors have only mentioned the disadvantages of corner entrances.

4. ELEMENTS OF THE PLAN.—(Another aside to the authors: Gentlemen, you are again unlucky with your "exclusive furniture shop." This time it is a super-luxurious chocolate salon. Ironical cheers from gallery, intermingled with cries of "fitness for purpose." [Responsibility for this mistake is still being discussed.—Ed. A.J.]).

I think the importance of concealing packing activities is rather over-emphasized. I have recently seen some excellent examples of semi-mobile packing benches, and a centrally-placed packing department, both designed as integral and visible parts of the selling area. Packing recesses in wall-fixtures minimize the trouble of intrusion upon selling space. I think the authors might have been a little more informative on this subject.

5. WINDOWS AND SIGNS.—The authors refer to a "newer type of non-reflecting window." There have been one or two installations, but I understand that this type is still in a very experimental stage.

6. SUNBLINDS.—Probably the most informative article that has ever been written on the subject.

7. EXTERIOR SURFACES.—(1). Why the emphasis of "Staybrite"? Would not the term "stainless steel" suffice?

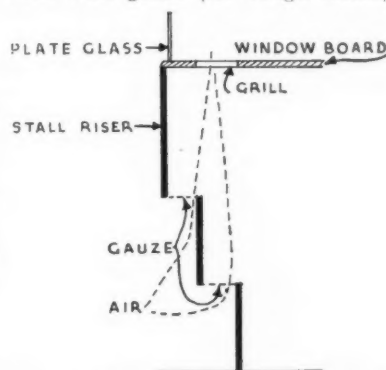
The authors fail to recognize the fact that the use of fascias *qua* fascias has enormously decreased; indeed, they show signs of disappearing altogether. Their inclusion of the fascia as one of the four sub-headings under which they study the shop-front is, in my opinion,

misleading, for the better type of contemporary shop-front has the name incorporated into its design, generally in the form of applied or recessed lettering. Fascias and pilasters have mostly been replaced by a plain, continuous surround, and, in this respect, the evolution of the shop-front closely resembles that of the domestic fireplace, a pleasant, clean-cut development in design to which the authors make no reference. Shopfitters have a notoriously limited or, at any rate, loosely-applied technical vocabulary. They still use the term "fascia" for any kind of top lettering, and when referring to a quite mobile and easily-adapted interior fitting they call it a "fixture."

Isn't "Quarzite" (or quartzite) worthy of a place under marbles and polished stone?

Is not the term "stall-riser" preferable to "stall-board"? The former is now in general use by both shopfitters and retailers. The latter, a relic of the days of wooden fronts, is likely to cause confusion, for not infrequently I find retailers, especially in the food trades, referring (quite erroneously) to the bed or base of their window as the stall-board.

The authors may be interested to learn of another method of ventilation "discovered" in a new shop the other day. The stall-riser is stepped inversely, the undersurface being left open and faced with gauze (see rough sketch).



Section showing method of ventilation through meshes in under portions of stepped stall-risers in conjunction with grilles in window base.

This method has the advantage that the setting back of the lower portion reduces the risk of damage to marble or other highly-polished surfaces by customers' feet.

8. EXTERIOR SURFACES.—(2). (Aside again: One little slip here, gentlemen. The London Shoe Co.'s shop is in manganese bronze and not brass.) What is the advantage of "stopped" Travertine for shop-fronts over other neutral-toned marbles which do not require "stopping"? I know it is used

a lot in this form now, but isn't it an unnecessary fake? If a polished surface is desired why not use another kind of marble?

9. SHOP TYPES.—(1) Frankly, I disagree entirely with the data given for chemists' shops. The dimensions given for (1), (2) and (3) are not in accord with general practice. The type of counter described is very rarely used. I have inspected, photographed, and described many hundreds of pharmacies but I have never yet found one with a prescription room. Presumably by this is meant dispensary. The size of this is governed by the extent of this side of the business. Some chemists have a large dispensing practice (N.H.I. or otherwise), with others it is infinitesimal. The figures given for "practical minimum size" are therefore quite valueless. These dimensions would, in fact, be quite out of proportion for the average pharmacy. I have seen many quite serviceable modern dispensaries less than half that size.

I have never personally come across a "Vitrolite" pull-out shelf for pill-making. Sounds rather risky. In any case, why treat "Vitrolite" as a common noun? There are other good branded varieties of opaque glass.

Extremely few chemists' counters are covered with linoleum. There are various objections to it. Open shelving is very seldom (indeed never in good class pharmacies) used for stock, but where a professional setting is desired a few such shelves are retained for shop-rounds. The authors have omitted altogether any reference to that terribly important symbol, the carboy.

Shoe Shops.—(3) Hosiery is seldom displayed on shelves. Generally a tray-fitted hosiery counter is placed in a position near the entrance. (5) Divisions of this sort are the exception rather than the rule to-day. (10) In contemporary shoe shops the wall-fixtures are seldom carried sufficiently high to involve the use of step ladders. (11) The same applies. Stock shelves are very rarely carried to ceiling height except in shops with low ceilings.

10. SHOP TYPES.—(2) *Greengrocer's shop*.—The term "greengrocer" has not been accepted in the trade for (to my knowledge) 12 years. Glance at the trade's own journals and you will never find the word; and, let me tell you, it is never even whispered at the trade's own dinners. The greengrocer, gentlemen, was long ago metamorphosed into a fruiterer, under which all-embracing term he also sells vegetables, flowers and canned goods. The data on this type of shop is too sketchy to be of much practical help.

Provision Shop.—(2) Some so-called provision shops sell grocery, but they do not usually have a grocery window. I have never seen curtains used as a background in a grocery or a provision shop. Would be most unhygienic. (3) Flat slabs of black (St. Anne's grey)

marble are more up-to-date. Stepped white marble slabs, standardized by certain of the multiples, but not necessarily best method. (5) 12-in. centres would be too close to be serviceable. (6) 2 ft. high shelves would be too low. (7) By "timber" it is assumed that deal is meant. Not in keeping with present-day standards. Minimum amount of wood used now-a-days. (14) Not necessarily black marble. White is, in fact, more popular.

Butcher's Shop.—(1) Removable duck-boards may be used in this position in some shops, but seldom considered necessary. (2) Very old fashioned. Has been replaced by steel rails, and even this is now often omitted, as it throws shadows on the slab. (3) and (4) The system of hanging-rails depends upon whether town or country business. "Whole meat" (presumably this means carcasses) is seldom shown and would be too heavy for ceiling height. Generally quartered and hung from lower rail. (5) Where shop has large frontage, central entrance with revolving shutter often preferred. (6) Presumably this refers to the block. Not used for serving over except in really impoverished shops. (8) Lower shelf out of date. Grease-proof and brown paper generally placed in suitable quantities on counter. Tiled floors are far more satisfactory than the "Grano" or "Compo" floors mentioned. White enamel walls not satisfactory as continual washing off of blood stains involves frequent redecoration. Impossible to improve on glazed tiles.

11. FIXTURES AND FITTINGS.—Why specify "Lamson" tubes? There are two other contemporary systems. Isn't the term "pneumatic tube" sufficient?

Sliding panels of glass, enclosing trays (not drawers) are not necessarily limited to cheaper stock fittings. Drapers and outfitters vary in their preferences; but it is more a question of the kind of merchandise. Most fair-sized shops employ both.

Pull-out hanging rails have gone out of favour. Not in use in any modern shops I have inspected during last year or so.

12. FLOORS AND WALL COVERINGS.—1. Again a reference to granolithic for shop floors. Do not remember having seen it used in a modern shop.

13. FLOOR AND WALL COVERINGS.—2. The question of closed or open backs for windows is debatable. Veneered backs are going out of favour.

14 and 15. ELECTRIC LIGHTING.—1 and 2. I believe the bottom trough lights in the Peter Jones windows have been discontinued.

16. HEATING AND OTHER SERVICES.—References to cash system sandwiched between heating and vacuum cleaning without a sub-heading, with rather confusing results. Why Lamson again, when there are other good systems?

THE AUTHORS' REPLY

A uniform surround could be designed with consequent improvement to street architecture, but carried far enough it would result in dullness, and owing to the great diversity of sites (as well as trades) it could hardly hope to be really suitable for more than a small proportion of cases.

Streets such as the Walworth Road are heaven compared with working-class districts of Birmingham, whence the authors had just returned when the notes were written.

We have not failed to recognize the disappearance of the fascia, but have used the term in the perhaps loose way to which Mr. Hammond refers. We may be wrong, but the more exact term "surround" can hardly be said to be in general use to describe shop fronts. We have almost over-emphasized the fact that lettering is the main component of most contemporary designs; see the numerous photos as well as references in the text.

The data for the remarks on Shop Types were collected from actual examples. The particular chemist shop to which our remarks referred was perhaps more of a dispenser than is usual (in our opinion this is as it should be, but I suppose we should not attempt to pass judgment on the chemist who sells pails as well as pills).

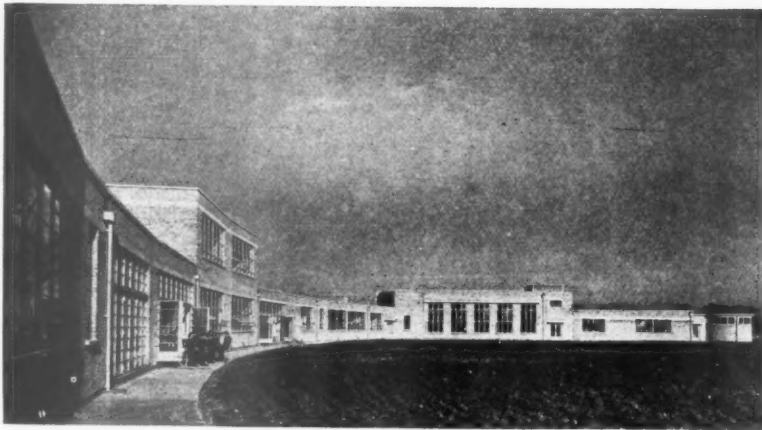
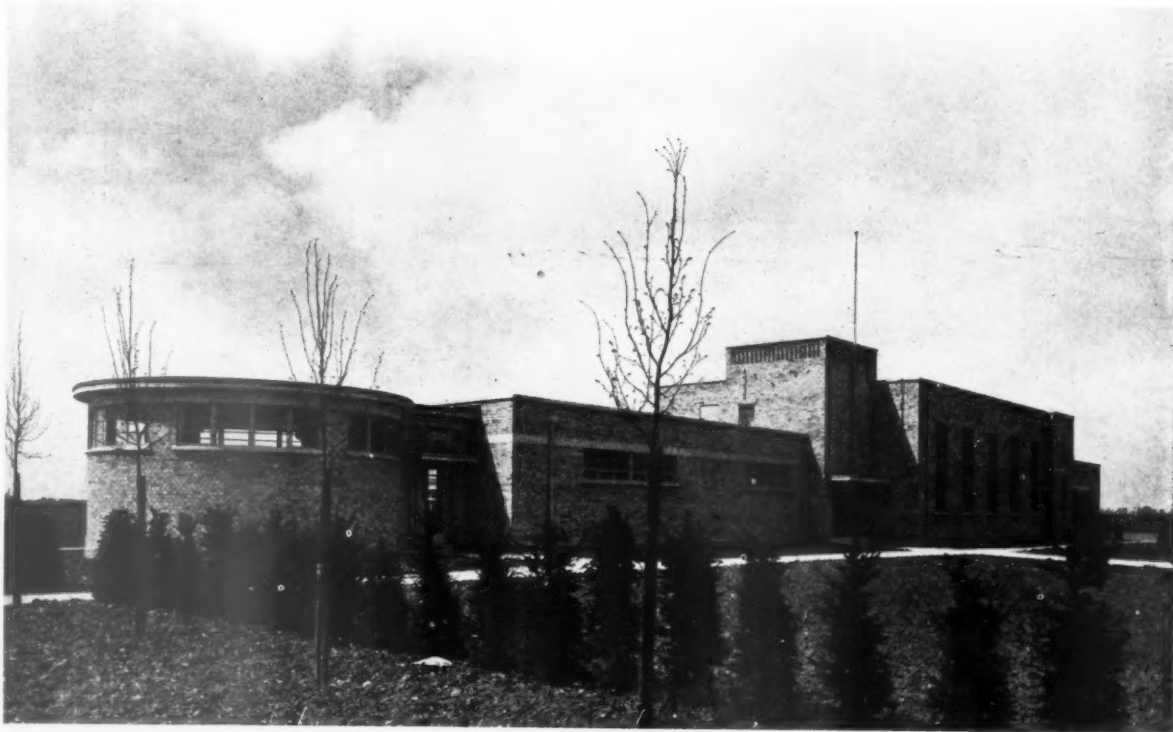
Architects are still old fashioned enough to call a greengrocer a greengrocer, but we have to thank Mr. Hammond for many of his other remarks on this section.

We are trying hard to "live down" the "Exclusive Furniture Shops." We were fully aware that the first one was a beauty parlour; the second was an unfortunate slip. Others evidently were also misled as the window was opened at the back to show the chocolates inside last time we passed.

Pull-out hanging fittings (we believe we called these Tayloracs somewhere—shades of Lamson and Vitrolite!) we think have gone out of favour more on grounds of cost than anything else, but in spite of the amount of clothing they accommodate, they certainly are very bulky for small shops.

About proprietary names in general: whether these should be used was discussed between authors and editor before the articles started. It was then decided that since the information given was to be based chiefly on our own experience the actual materials and equipment which we had found satisfactory should be mentioned where necessary in spite of possible injustice. We do not deny, however (and in several places have expressly stated), that there are many products equally as good as those mentioned; but which, so far, the authors have not happened to use.

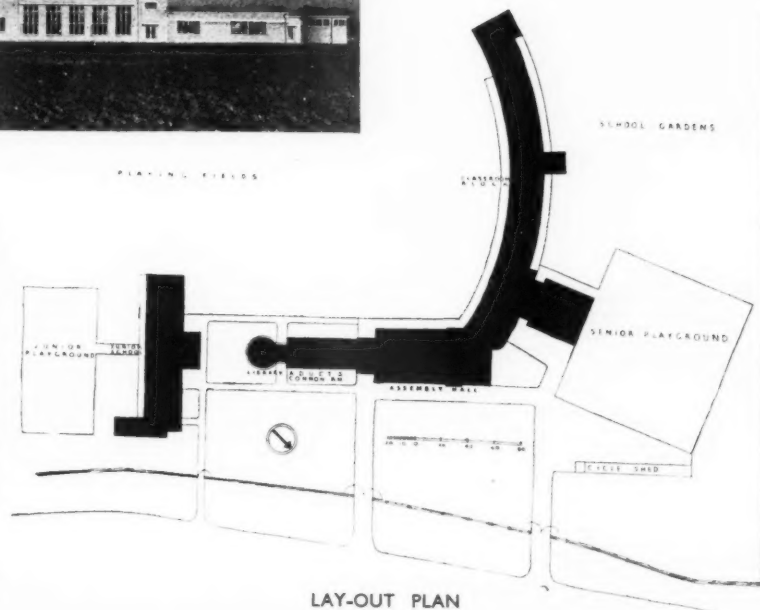
VILLAGE COLLEGE, BOTTISHAM



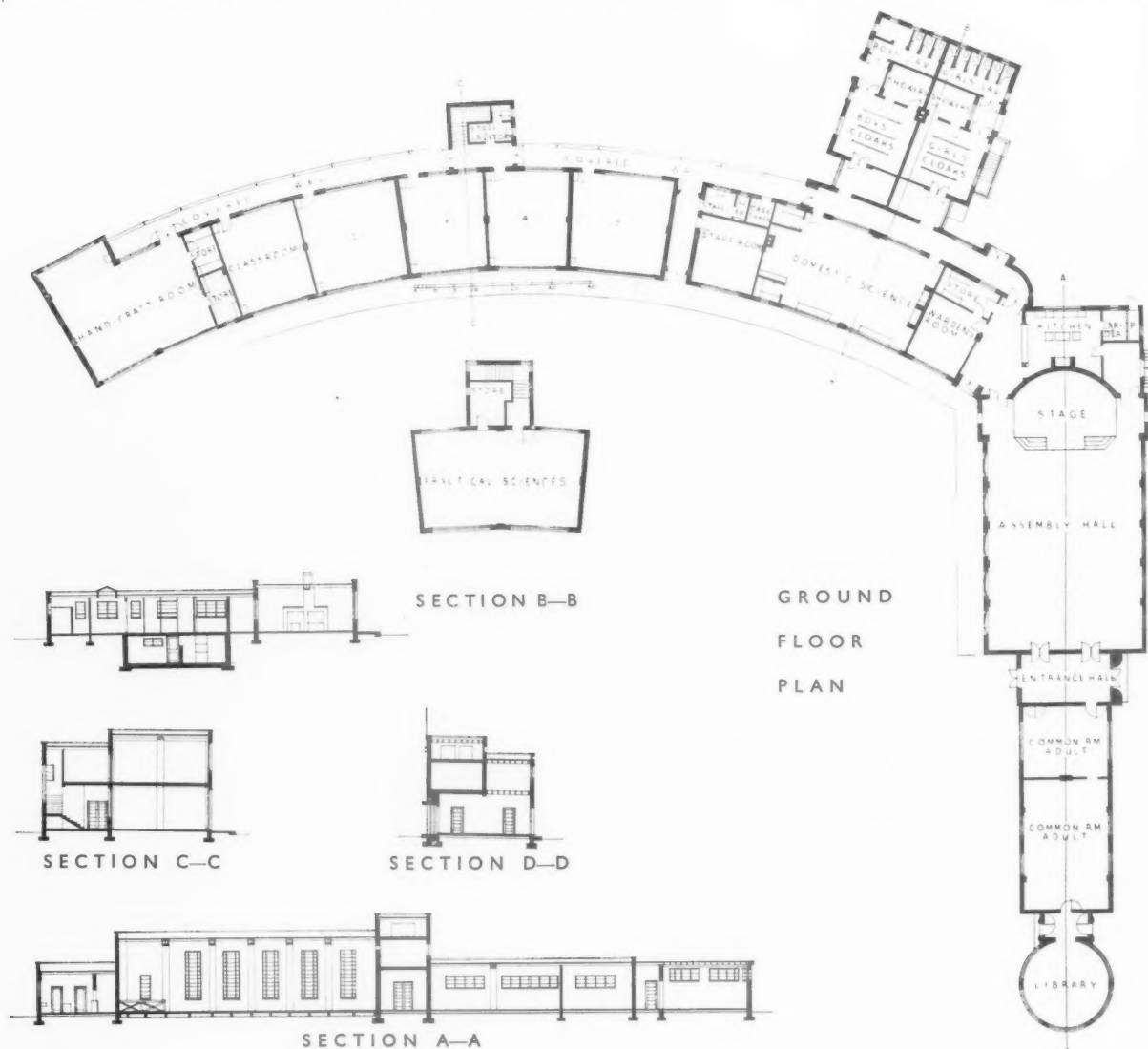
S. E. URWIN
ARCHITECT

PROBLEM—Built by the Cambridgeshire County Council, the village college is intended to serve as a centre of education, recreation and social life of a group of ten villages with a total population of about 6,200. During the day the main building houses the senior school of 240 scholars of 11 to 15 years of age who come from the villages served, some on foot, others by bicycle or by motor omnibus. A midday meal is served in the hall at a charge of 2½d. a head. The college is being opened today by the Rt. Hon. Oliver Stanley, P.C., M.P., President of the Board of Education.

The photographs show: top, the north-east front; above, a view from the south-west.

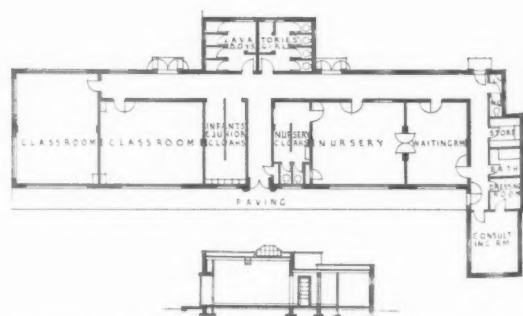


VILLAGE COLLEGE, BOTTISHAM:



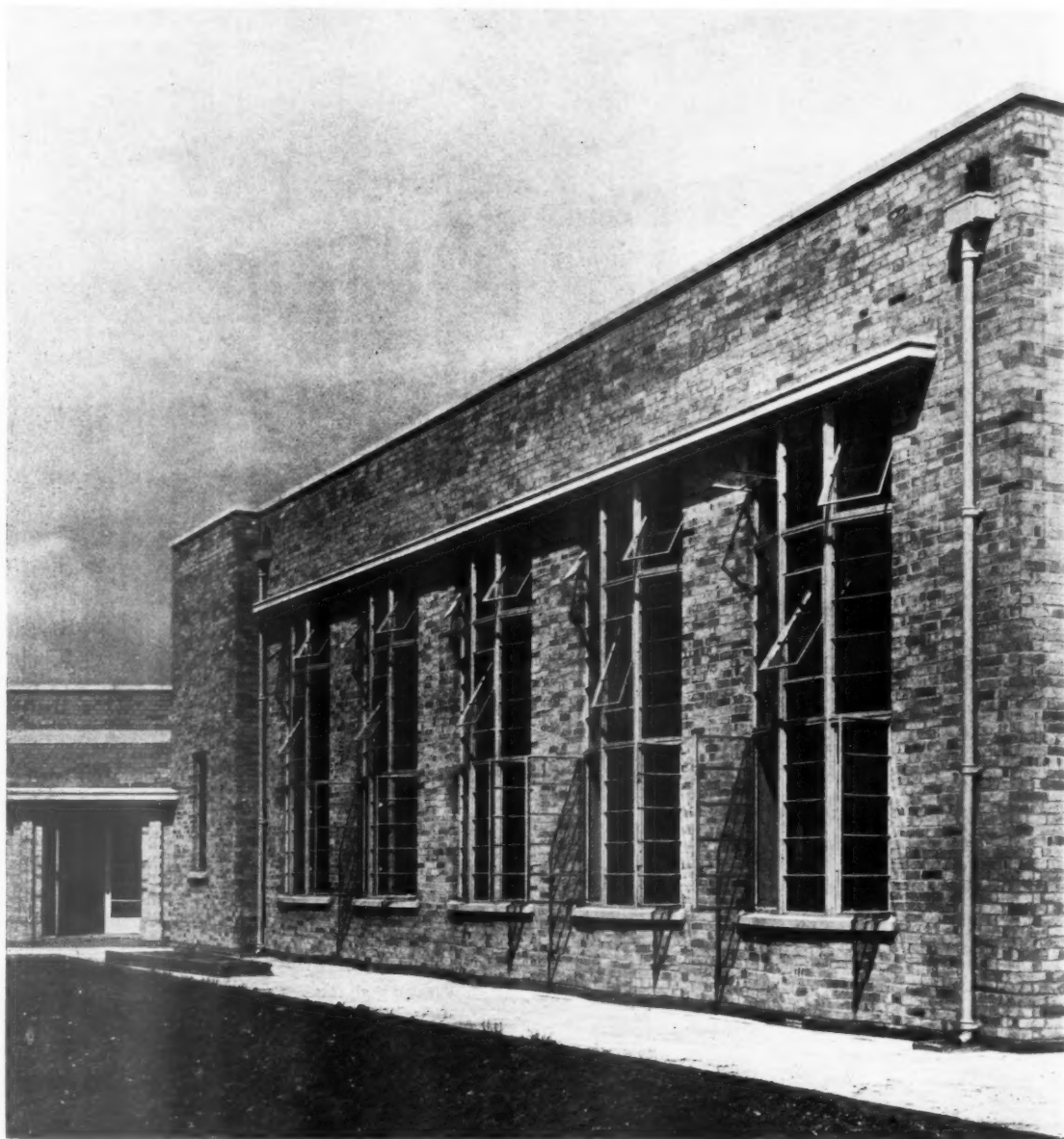
PROBLEM—Continued—Both as to size and equipment, particularly as regards the assembly hall, workshops and practical rooms, the buildings are designed so that they may be adequate for adult use for further education in the evenings. A common room and a lecture room have also been provided for the sole use of adults; and there is a library which will be a branch of the county library and will be used by students at evening classes and the senior school. The kitchen has been provided with a serving hatch so that the annex to the assembly hall can be used as a canteen for evening students.

Adjacent to the main building is the junior school and the Sir Halley Stewart clinic. The junior school, which serves Bottisham alone, provides rooms for the children of 5-11 years a nursery room for children under five years, a waiting room, a medical officer's room, dressing room, and a bathroom and kitchenette. The intention is to combine maternity and child welfare, including the infant welfare centre, the nursery class and the infant and junior school in one building. The clinic will also be used for the medical inspection and treatment of the pupils of the senior school.



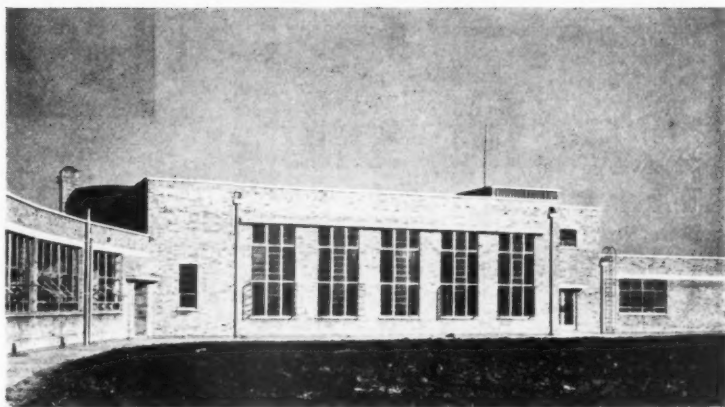
JUNIOR SCHOOL: PLAN AND SECTION

S . E . U R W I N , A R C H I T E C T

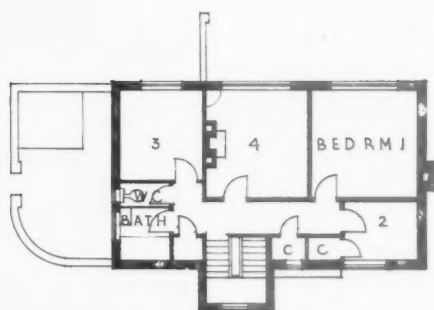
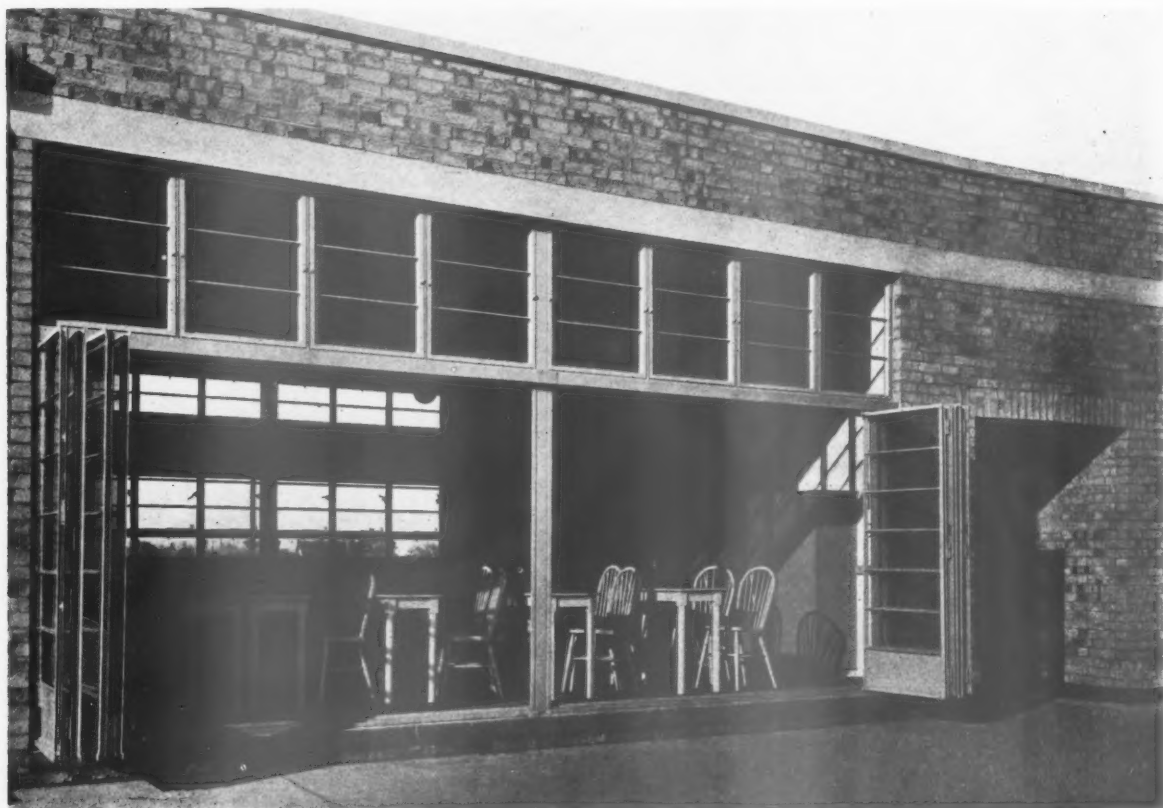


CONSTRUCTION—The walls are 11-in. brick on concrete foundations, and the assembly hall is constructed of steel framing with brick filling. Roofs are boarded and finished with asphalt. Floors generally are of wood blocks with the heating coils underneath. The assembly hall is heated by radiators and has a hollow floor to allow it to be used as a gymnasium and for dances. All windows are steel.

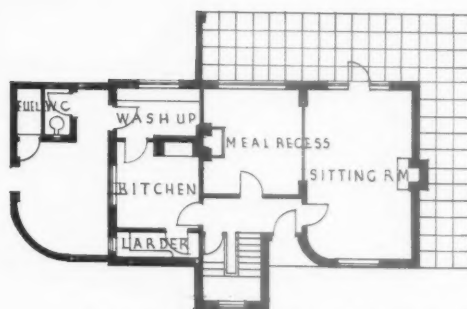
The photographs show: top, the assembly hall windows on the south-west front; right, the south-west front.



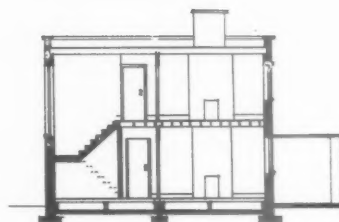
VILLAGE COLLEGE, BOTTISHAM:



FIRST FLOOR PLAN

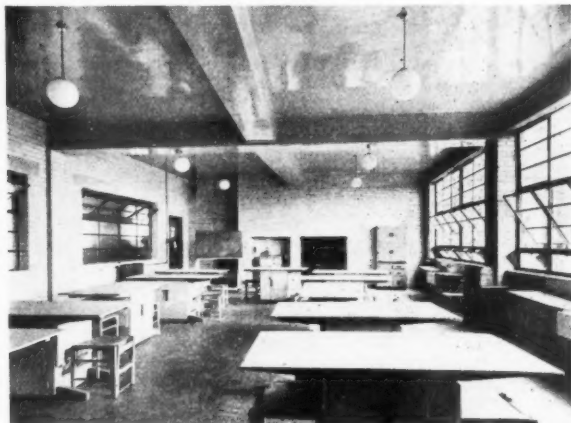
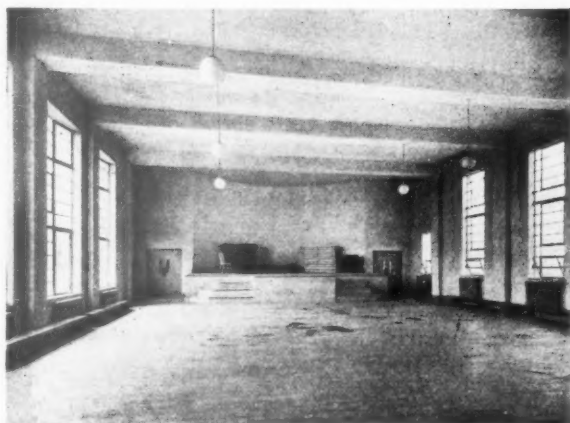


PORTER'S LODGE: GROUND FLOOR PLAN AND SECTION



The photographs are of two typical classrooms. That at the top shows how the windows of the ground-floor classrooms on the south-west front can be thrown completely open when desired.

S . E . U R W I N , A R C H I T E C T



EQUIPMENT AND DECORATION—The design and equipment of the buildings are the result of the co-operative effort of the officers and staff of the Education Committee, working in consultation with the Warden and his staff and H.M. Inspectors and other officers of the Board of Education. The county architect, Mr. S. E. Urwin, was the architect of the buildings. The domestic science tables in the Domestic Science Room were designed by Mr. C. A. Chadwick, County Organizer of Handicrafts, in consultation with Miss Rachel Hassall, County Organizer of Domestic Subjects. Mr. Chadwick has also contributed to the practical working out of the designs for furniture and equipment for many parts of the village college.

The interior decoration has been carried out in accordance with a scheme prepared by Lord Fairhaven, Chairman of the Managing Body. The Director of Education is Mr. Henry Morris.

In the junior school the walls and furniture are treated with bright colours, primrose, pink, blue, red and orange. In the senior school the corridors are in bright colours; and the classrooms are in more subdued colours.

For list of general and sub-contractors see page 792.

The photographs show: top, a common room (the furniture is temporarily arranged) for adults; above, the assembly hall and the domestic science room.



Highpoint, Highgate. By Lubetkin and Tecton. From "Modern Architecture in England."

L I T E R A T U R E

AMERICAN TRIBUTE OR THE ASTONISHING MUSEUM

[By R. GARDNER-MEDWIN]

Modern Architecture in England: With essays by Henry-Russell Hitchcock, Jr., and Catherine K. Bauer. The Museum of Modern Art, New York. George Allen & Unwin, Ltd., London. Price 7s. 6d.

THE Museum of Modern Art in New York has done more than any other organization in the States to make known to an interested public the significant tendencies in the visual arts. It is almost always possible to find there an intelligently arranged exhibition of contemporary painting, sculpture, architecture, industrial design. This conception of a "museum" as a fluid institution presenting a running commentary on contemporary design is unique in New York, unheard of in London.

In February of this year the Museum of Modern Art amazed New Yorkers by holding the exhibition of modern English architecture of which this book is a bound and excellently printed catalogue illustrating the bulk of the exhibited plans and photographs, reinforced with essays by Henry-Russell Hitchcock, Jr., and Catherine Bauer.

It is interesting to compare the exhibits with those in the exceptionally

well-integrated international exhibition of modern architecture arranged and published in book form by the Museum of Modern Art in 1932. That exhibition was mainly taken up with the work of Lloyd Wright, Gropius, Le Corbusier, Oud, Miës van der Rohe, Raymond Hood, Lescaze and Neutra. The only two English buildings considered worthy of mention were Emberton's yacht club and Amyas Connell's house at Amersham. That was five years ago. As Mr. Hitchcock points out, the majority of the buildings illustrated in *Modern Architecture in England* would be included without hesitation if another international exhibition were to be held in New York. Today, he says, "England leads the world in modern architectural activity," partly because of political interference in Europe, but mostly because of "the extraordinary rapidity with which an English school of modern architecture has developed in the last two or three years."

The exhibition perpetuated in this book is, indeed, a tribute. The work illustrated is remarkably coherent in the bulk, very much more sure of itself individually than the tentative efforts of five years ago. This is largely due to the architects of unwavering conviction who have come to us from France and Germany. Our best work is international in character, a successful fusing of the Gropius and Le

Corbusier schools. Actually the number of really first-rate examples has been just about exhausted, and Americans are likely to get a too flattering impression of the kind of building that is really going on here, though Mr. Hitchcock condemns the misconstrued "half-modern" of our go-getting firms, the "blatant revivalism" of the knighted school.

Americans (contrary to popular English myth) are unusually self-critical, unusually ready to seek out contributions to world progress in other nations, and this book makes it clear that England, in the last five years, has made more valuable contributions to planning, housing technique and contemporary design generally than has America. It is disheartening to think that in the States, where greater technical agility, greater precision, greater perfection of finish provide ideal material for an enlightened architecture, there is, between coast and coast, little sign of any really coherent school of thought. Neutra in the west, Lescaze in the east (neither of them American born) are the only two names distinguished for their fusing of architecture with the American social pattern and American industrial technique since Frank Lloyd Wright set the example. The authors might have pointed out in fairness to their cause that in the gigantic planning projects of the New Deal, one of them covering an area four-fifths the size of England, America has far surpassed in imaginative ability anything that we have attempted in the regional planning schemes which Catherine Bauer praises; just as the planning of Whipsnade Zoo, also praised, is an infinitesimal achievement when compared with the superb organism of an American National Park. Perhaps we shall see some of the purposefulness of these achievements reflected in the buildings of America's younger architects. And it is possible that this popular exhibition, coinciding as it does with the enthusiastic welcome of Gropius, will mark the beginning of a "solid front," already evident in England.

Tecton was well represented in the exhibition with thirteen out of the seventy-seven exhibits. Mr. Hitchcock has the idea that the penguin pond marked the turning-point in general acceptance of the new technique in England—implied suggestion that we wanted to try it out on the penguins first. Shortly after came Highpoint, which he describes as "one of the finest, if not absolutely the finest, middle-class housing projects in the world." A high compliment from New York, a city notable for apartment-living.

Maxwell Fry is represented by four very creditable solo exhibits and six

in association with Gropius. Catherine Bauer deplors the scarcity of "a modern architecture deriving from the new social planning and housing principles." Fry's Sassoon House is there, but it is unfortunate that the Kensal Green scheme, probably the best complete rehousing scheme we have done (in spite of its paucity of open space), was not in time to be shown in the book when so many examples of middle-income houses are included.

After the refreshing cumulative effect of the work of Teñon, Gropius and Fry, two of the most distinguished buildings illustrated are Mendelsohn and Chermayeff's Bexhill Pavilion and the Peter Jones store by William Crabtree, and Slater and Moberley.

In a brief historical sketch Mr. Hitchcock points to William Morris and Norman Shaw as direct ancestors of all our traditional architecture from Lutyens to the speculative builders. We shall have to hurry this control business before speculators start burslesquing Teñon and Maxwell Fry. If that happens, architects will go skeddaddling back to revivalism and we shall have such confusion between building method and architectural expression that Tudor houses on stilts may become the vogue.

Funnier things are happening.

THREE BOOKS ON HOUSING

[By W. P. KEEN]

Housing the Old. (Third Edition.) By Olive Mathews. London: 44 Creswell Place, S.W.10. Price 4d.

The Law of Housing and the Housing Acts. (Second Edition.) By Alfred R. Taylour, Barrister-at-Law. London: Hadden, Best and Co. Price 42s.

Thirty-seventh Annual Report of the National Housing and Town Planning Council. Issued by the N.H.T.P.C. Price ?

THE first of the three books listed above is a plea for the provision of accommodation for the aged person of limited means. It is now in its third edition and, since the first edition was issued (early in 1935) has been completely rewritten with the exception of the first page. The author suggests that a proportion of one and two-room dwellings should be built on every housing estate and that the dwellings should be conveniently equipped and let at low rents. An excellent suggestion which, if carried out, would ensure that there would be an ever-increasing amount of accommodation available for the older people. And that more homes are needed for the aged person is demonstrated by the fact that 48 per cent. of our families consist of only two or three persons apiece; and that in 1931, the people over 65 years of age represented 7.2 per cent. of the

population. This figure is expected to reach 11.2 per cent. in 1951. Here is the crux of the author's plea: "The time has now come to include in every estate a certain number of small homes for the old. These will never become overcrowded, for they will never be let to younger couples, but will be kept entirely for the older people. The Overcrowding Act, too, will prevent their occupation by large families in future. Unless this is done, the present estates will deteriorate as time goes on. The tenants will grow older—the men will retire on pensions or their wives will be widowed—they will no longer be able to afford the rent of a three-bedroomed house. What will the Council do then? It will be faced by an unpleasant choice. Either it must turn them out, to return to the sordid street and comfortless homes from which it was proud to rescue them years before; or else it must permit them to sub-let rooms, thereby introducing all the evils which follow this process, for there is nothing which so soon reduces a good house to squalor, as every housing authority knows, as the presence of two or more families in a dwelling planned for one. When every housing estate contains some small dwellings for the older people, this dilemma will not arise. The Council will be able to offer smaller accommodation in the same place, and the ties of association with a certain neighbourhood need not be roughly broken."

At the end of the book are plans showing suggested lay-outs of flats for small families. They are: 1:—City flats with all those for the old people on the ground floor, and the larger flats on the floors above (architect, Edward Armstrong). 2:—A dwelling for two friends—or brother and sister (architect, K. W. F. Harris); and 3:—A short row of country cottages (architect, G. Langley Taylor).

Mr. Taylour's volume on housing was first published in July of last year. The second edition has thus been issued within ten months of its predecessor. The reason for this revised volume is the Housing Act, 1936. This Act consolidates the Housing Acts of 1925 to 1935, and certain other housing enactments.

The three previous Acts of 1925, 1930 and 1935 are to a large extent re-enacted in the new Act with necessary variations—a few of the original sections in the Acts of 1930 and 1935 still remaining unrepealed. All these Acts together with the fragmentary remains of previous Acts are reproduced in this edition with the appropriate annotations and cross references to the re-enacted sections of repealed Acts.

This edition contains a new feature—a chapter on Accounts and Finance, in

which the writer points out and explains in a careful and concise manner the difficult questions which the financial sections of the new Act present.

As with the last edition full appendices are added, together with a comprehensive index. A comparative table showing to which old section each new section of the present Act relates and re-enacts is also inserted.

This book costs 12s. more than the first edition. It is well worth the additional cost and is a very valuable addition to housing literature.

The report issued by the National Housing and Town Planning Council contains a complete record of its work for the year ending March 31, 1937, including a full report of the conference held under the auspices of the Council at Scarborough in November last. In addition, the report contains brief articles on the Housing Act, 1936, and other Acts, progress of the anti-slum campaign, "The Housing and Town Planning Movement in Scotland" by Sir William Whyte, and well illustrated articles on "The Post-War Housing and Town Planning Activities of the City of Norwich" by K. F. B. Nicholls, and "The Planning of the Kitchen," by Mary Crowley.

HOUSING AND TOWN PLANNING

A lecture entitled "Housing and Town Planning: English and American Compared," was given by Sir Raymond Unwin at a general meeting of the Royal Society of Arts.

Sir Percy A. Harris presided. He said: "It has often been said that if Sir Christopher Wren had been allowed to have his way after the Great Fire, London would have been a very different place than it is today. It might be said equally, perhaps even with greater force, that the new London that is growing up around us, almost in the night, would have been very different in character and plan if the wise advice of various authorities had been taken when Sir Raymond Unwin was Technical Adviser to the Greater London Regional Planning Committee.

"We see in London today factories growing up without provision for houses for those who work in them. Equally, we see houses being placed in areas with no employment for those who live in them. I don't know if you have noticed in the press the outcry of a travelling public about the appalling conditions of the trains, tubes and buses in which they have to travel to and from their work. I often wonder at the exemplary patience of the London citizen. These problems will never be solved until the advice is taken of men like Sir Raymond Unwin.

"I have never had great affection for dictators, but certainly it would not be a bad thing if a benevolent person like Sir Raymond was given despotic powers—of course under democratic guidance—to show the direction of this great new London that is growing so rapidly. Here, in London, we have at the moment something like one-fifth of the population of England and Wales. In ten years in the London traffic area, the census from 1911-21 showed an increase of nearly a million, and the increase is going on today at even a greater rate. North, South,



Under construction: new offices for Henry Hope and Sons, 17 and 18 Berners Street, W.1. Architects, Slater and Moberly.

East and West you see houses and shops being put up higgledy-piggledy, in no ordered plan. The problem cannot wait for solution. The damage is done and cannot be undone."

Following is a summary of Sir Raymond Unwin's address:

The association of Housing with Planning is justified because the dwelling areas occupy much the largest part of a town and the dwellings represent the longest investment in the capital value of towns.

When comparing the attitude adopted towards such subjects, and the methods of handling the problems to which they give rise which are characteristic of the English and American peoples, while recognizing how much in race and tradition they share, the great difference in their circumstances since they parted company and the causes of that parting must not be overlooked. Nor must the significance in this connection be missed of the coincidence in the year 1776 of the Declaration of Independence and the publication of Adam Smith's "Wealth of Nations," which may almost rank as the Individualists' Bible. The Americans had experienced absentee and not too sympathetic Government and started with dislike and suspicion of all Government action. The open frontier which offered profitable careers to all who had energy to seek them during the whole of the nineteenth century confirmed their belief in an economic individualism more rugged than ever found acceptance in England. The suspicion of Government dictated the constitution dividing the land into many sovereign states delegating only limited powers to the Federal Government and dividing them between Congress, Senate and President, with the Supreme Court as Arbiter.

This arrangement greatly increases the difficulty of any action to promote housing or planning on the part of the Federal Government, which has no status in relation to municipal affairs and no control over local governing authorities such as in England is exercised through the Ministry of Health.

These facts but serve to increase the significance of the important place which planning is assuming in American administration and the great efforts being made to promote housing for the lower income groups.

Previous to the depression housing by public authorities was unknown in the States. The

lower income groups were mostly housed in the leavings of the better to do who could afford to take the new houses. "All move up one place" was the rule as in Alice's Tea Party.

The problem was forced into prominence by the need to find work for the many millions of unemployed after the 1931 slump; and the obvious fact that of all forms of public work, house building for the lower income groups was one of the most economical and beneficial which could be found. Building of all kinds was more completely paralysed than almost any other industry.

The Federal Government first tried to promote local Public Utility Societies—or limited dividend corporations as they are known there. Local finance was not available and they had to undertake the work themselves from Washington, thus centralizing an activity which is essentially local. This has "put housing on the map." The paralysis of building for about five years and the increase in the number of families have together created an urgent problem of scarcity. Now, therefore, legislation known as the Wagner Bill is proposed to enable a Federal Housing Authority to be set up which will be empowered to give financial assistance on a large scale to States, Local Authorities and Housing Associations to encourage house building.

The problem is very difficult; the relation between costs and rents, and between these rents and the people's incomes are more unfavourable even than they are here.

Many other problems, which completely exceed the areas and powers of any individual local authorities or States, have become acute and are forcing the people to abandon much of their exaggerated individualism and obliging the Federal Government to encourage State planning and undertake National planning on an extensive scale. Planning is, in fact, assuming a key position of great interest. A few examples will show this.

In England housing became a burning question owing to the cessation of building during the War and the very rapid increase in family units, due to the general reduction in the number of persons in each family. We did not use house building as direct relief. Our planning too sprang from different causes and is not subject to like constitutional restrictions; but on the other hand it tends to be of a regulatory and restrictive character, based on local considerations, and not of a positive and national

character promoting the best conservation and development of the resources of the land.

The Chairman, in opening the discussion, said: "We don't want London to become a city entirely of flat-dwellers, not merely from the point of view of aesthetics, but a population entirely composed of flat-dwellers must lose personality and character, particularly the personality and character that is the pride of Londoners. I truly believe there is no more living entity than the Cockney. A great many who go into these flat dwellings have some of those charming characteristics, which I am afraid will rapidly disappear."

Sir Richard A. S. Paget, Bt., HON. A.R.I.B.A., said: "On the subject of flats, it is evident that you cannot bring up a proper population in flats, where children don't get a chance of getting to nature, where there is no chance of them grubbing about, developing their powers of observation and manual skill—in fact, everything that makes life worth living, and I think we should not go far wrong if we forbade any children to be allowed to be housed in flats."

"One other point in connection with the economics of house building. At present the fundamental difficulty is that in order to build a house, whether by local authority, Government or by private enterprise, you have to begin by borrowing money, and that costs, with interest and sinking fund, say, 5 per cent. That means to say, on a house costing £500 you must begin by finding £25 a year merely to pay the interest on that money. I believe that to be an unnecessary proceeding, for when you build a new house on a new piece of land you are making a new gilt-edged security, and I cannot see why a new gilt-edged security should not be treated on perfectly orthodox financial lines, in the same way as the Bank of England treats a new security as a cheque. They say, for example, 'We have a new gilt-edged security which is as good as gold,' and they make it a basis eventually for a further issue of notes and credits. There is no difference between a gilt-edged security you buy from somebody else or which you produce by your own labour and skill. I have talked this over with wise financial authorities, and they none of them have been able to show the difference in the methods by which the Bank of England buys gilt-edged securities and makes them a basis for new money, or the method which was adopted in Guernsey in 1820, where they, being short of money, built their town hall, their schools and their docks, and they printed their paper money on the security of those new buildings. I mention that because if you could have rational economics of that kind, the greater part of the housing difficulties would be over. Instead of your £500 house having to bear an interest of £25 a year, it would only have to bear what you would put by for amortization, only £7 10s. I think those are the questions which ought to be examined very fully because they go to the very root of the problem."

Mr. Oswald P. Milne, F.R.I.B.A., said: "Sir Raymond has quite rightly stressed the absolute necessity of planning, of really thinking out this building, not only our country but every other country, and it is quite obvious, but not always understood, that we must plan. Furthermore, what we really need is intelligent planners and, what is more necessary, intelligent officials to administer any powers of town planning that are made. Those things are tremendously necessary, and it is only when we get these intelligible and intelligent administrators that we can, with our town-planning powers, make a country worthy for us to live in. I am glad to think our problem is not so vast as the colossal problem in America. Directly you deal with America, numbers and everything else are staggering. We have not such a tremendous problem as they, and we have gone some way in trying to solve the decent housing of our people."

Sir Raymond Unwin, in reply, said: "I am quite sure that if we are permanently to solve

the housing problem we must have a sufficient number of houses in the hands of public authorities which can be let to the lower income groups progressively at rents which can be paid by each generation as the standard of living goes up."

Slum Clearance and Re-housing

The most recent figures showing the position of slum clearance and rehousing are summarized below.

Clearance Areas and Orders

During March local authorities declared areas comprising 7,015 houses, representing the displacement of 30,225 persons, as compared with 5,088 houses and a displacement of 21,401 persons in February.

The orders submitted during March covered 4,197 houses and the displacement of 17,852 persons, as compared with 5,850 houses and the displacement of 24,654 persons in February.

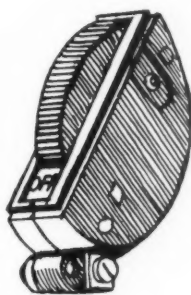
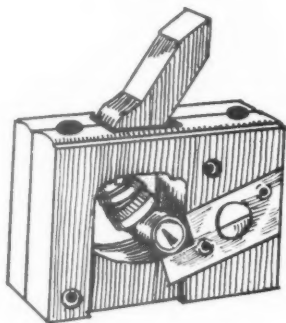
The orders confirmed during March covered 3,388 houses and 13,762 persons, as compared with 2,832 houses and 11,710 persons in February. The total number of houses in confirmed orders is now 134,388, involving the displacement of 579,910 persons.

Re-housing Progress

The latest available figures are those for February. At the end of that month there were 58,276 houses under construction as compared with 58,140 at the end of January and 56,549 at the end of December; 5,553 houses were completed during February as compared with 5,761 during January and 5,450 during December.

The great majority of these houses are being provided for rehousing persons displaced in connection with slum clearance schemes.

New houses approved during March numbered 6,805, as compared with 7,798 in February and 6,627 in January.



TRADE NOTES

[EDITED BY PHILIP SCHOLBERG]

Specialized Switchgear

THE drawings at the head of these notes show two small 5-amp. switches of a type not often used, but occasionally necessary. The one on the left is only $\frac{3}{8}$ in. wide and $\frac{7}{8}$ in. deep from front to back, with a height of $1\frac{3}{8}$ in., the slide action one on the right being $\frac{1}{2}$ in. larger on all dimensions. Both these

switches are made by the Arrow people, who have a large range of most of the usual types and plenty of the slightly less common ones. The narrow unit seems to me to have plenty of possibilities, for it can so easily be tucked into a pressed steel door-frame (as Tecton did at High point), when nothing need be visible except the projecting dolly, and where there is plenty of

room to run wiring without the waste of cutting chases and filling them in again.

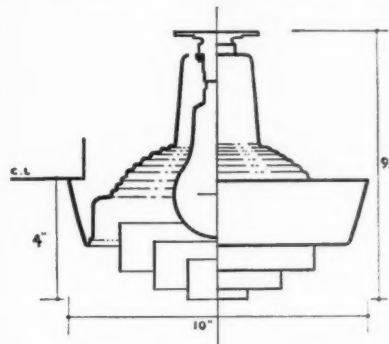
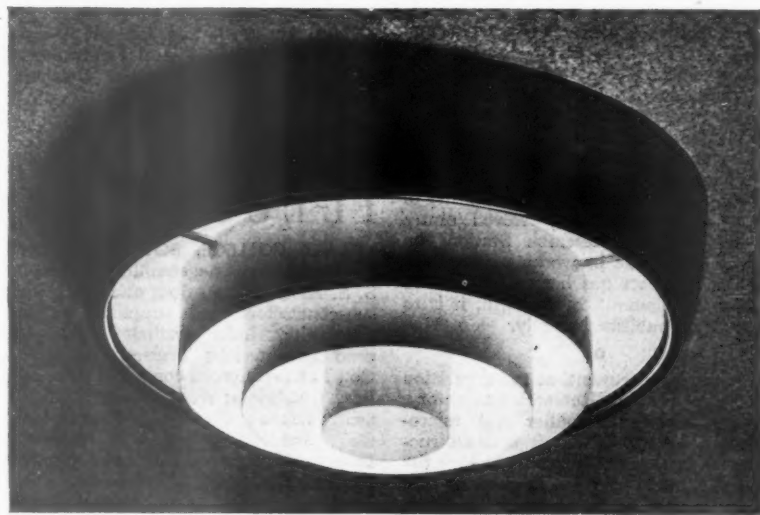
Glare from Lighting

Troughton and Young have done it again. After their excellently designed and widely used Ultralux range of fittings comes a new type called Louverlux—fittings designed to give high lighting intensities and at the same time prevent glare. These fittings are intended for use in schools, shops, offices and factories, or anywhere else where high intensities are needed, the direction of the light being controlled by a series of louvers designed to work in conjunction with special high-efficiency reflectors. The position of the lamps is thus masked, preventing glare, and the maximum amount of light is directed where the high illumination intensities are needed.

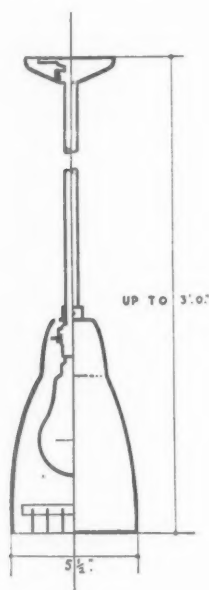
A range of twenty models is produced, in sixteen of which white flashed opal and acid glass is used as a general diffusing medium, and it is interesting to note that only seven different glass shapes are used in the process—one of those details of design which so many firms overlook but which make such a difference in production and marketing costs.

The standard finish for all visible metal-work is aluminium anodized to a satin silver surface, though other coloured finishes are available at a slight extra cost. Louvers, incidentally, are stove enamelled an ivory white. One of the fittings is illustrated below, and another on the next page, with line diagrams to show overall dimensions, and these give some idea of how good their general appearance is. Nearly all the fittings in this range—or the Ultralux range for that matter—have a clean certainty about them and look exactly like what they are meant to be: a virtue which is still a good deal rarer than it should be. A bouquet here to Mr. A. B. Read and his designing staff, who have taken the trouble to find out what architects like in the way of shapes and have made the result work as a light fitting.

The catalogue is rather like the fittings it describes—terse and to the point, with a commendable absence of the usual blah. And this, in a roundabout sort of way, reminds me of the assorted oddments that come pouring in from manufacturers round about the New Year. Ash trays, ink pots,



One of Troughton and Young's new Louverlux fittings, the L2, for 100-watt lamps. The price is 39s. 6d. (See note above).



A suspended type of Louverlux fitting, the L 13. Designed for 100-watt lamp, the price is 44s. 6d. (See note on page 791.)

calendars, boxes of cigarettes, nearly all disfigured with such awful trade marks and screaming names that they have to be thrown away at once. All, that is, except a very pleasant little chromium-plated blotter—the kind that you pick up and roll across your signature in an executive (or administrative) sort of way—a blotter giving no information at all except a discreet KEN 8881, so that you simply had to ring up and find out where it came from. And the answer was—Troughton and Young. A bright idea which no doubt did the trick from the advertising point of view, and leaves one with the impression that the firm responsible for it has more intelligence than most.

The Last Year at Teddington

The publication of the annual report of the National Physical Laboratory shows that a certain amount of further work has been done in the Physics department on the ever-present question of noise abatement. No startlingly new conclusions have been arrived at, the old statement that "solid partitions have insulating values determined mainly by their weight" being reiterated, with the further statement that "the only escape from this mass law is by the use of composite partitions in which the components are insulated from each other as effectively as possible." Tests have been carried out on various types of partition, and "a double partition consisting of two leaves of plastered 2-inch clinker block separated by an air space gives an insulation equivalent to a 9-inch brick wall of

three times the weight when the leaves are insulated from the structure by strips of cork round their edges." Absorbent material in the interspace is also approved of so long as it does not act as a link between the components.

Floors have also been investigated, and the floating floor resting on elastic supports is considered to offer "the most satisfactory treatment," while carpets and linoleum are not of any great use. All these facts are, of course, well enough known by now to almost every architect, and the report itself is so carefully worded that hardly any further light is shed on a difficult and pressing subject, though in all fairness it must be added that "measurement of the sound absorption coefficients of proprietary materials employed in the control of reverberation has continued to provide a considerable volume of test work." Priority has been given, at the request of the Ministry of Health, to a programme, evolved jointly with the Building Research Station, on the subject of noise in working-class flats. A summary report has been submitted to the Ministry Committee, and will, it is to be hoped, be published shortly.

The Radio Department, at the suggestion of the Forest Products Research Laboratory, has been applying amplifier and microphone technique to the detection of destructive larvæ in timber, in the hope that the faint noises made by them in gnawing and moving about might become audible.

A preliminary trial showed that in growing timber or in actual buildings there was too much background noise, and, for test purposes, specimens are now placed in a soundproof chamber.

The noises made by larvæ can then be readily detected, and in some cases different larvæ can be distinguished by differences in the sounds emitted. It would seem, therefore, that while it is still not possible to evolve a portable apparatus for discovering the worst about existing jobs, it will none the less be comparatively simple to test sample pieces in the laboratory and thus arrive at some estimate of the relative potency of the existing means of destroying larvæ and to discover the best methods of applying them to give the required results.

Addresses

Arrow Electric Switches, Ltd., Hanger Lane, London, W.5.

Troughton and Young, Ltd., 143 Knightsbridge, London, S.W.1.

Manufacturers' Items

The latest issue of the British Commercial Gas Association's Industrial Uses of Gas series deals with the control of gas-fired plant. The booklet contains illustrated descriptions of the various methods of temperature measurement, and of temperature control, based on them. It also deals with boiler controls, clock controls, gas governors and safety devices. Besides 18 drawings and photographs of instruments there are 25 photographs of representative gas installations from all over the country and from many different industries.

A bibliography and a list of manufacturers of measuring and control gear complete a most useful publication.

The booklet, which is No. 10 in the Industrial Uses of Gas series, may be obtained, post free, on application to the publishers, Gas Industry House, 1 Grosvenor Place, London, S.W.1.

We are informed by Messrs. Donald Macpherson & Co., Ltd., the paint and varnish manufacturers, of Manchester and London, that they have recently appointed Mr. Donald Hewitt to a position as architectural representative for the North of England. Mr. Hewitt, until quite recently, represented Messrs. Mander Brothers in that area.

THE BUILDINGS ILLUSTRATED

VILLAGE COLLEGE, BOTTISHAM, CAMBS.

(pages 783-787). The general contractors were: S. S. Ambrose and Son, and the principal sub-contractors and suppliers included: Permanite, Ltd., Asphalte and waterproofing materials; Trussed Concrete Steel Co., Ltd., reinforced concrete; Cambridge Brick Co., bricks; W. H. Collier & Co., Ltd., facing bricks; Cambridge Artificial Stone Co., artificial stone and stonework; Dawnays, Ltd., structural steel; Granwood Flooring Co., Ltd., patent flooring; Booth Horrocks & Co., Ltd., central heating;

R. Crittall & Co., Ltd., and Smith and Wellstood, Ltd., stoves; C. Ridgeon and Sons, Ltd., grates; Crane, Ltd., boilers; Morley and Duke, electric wiring; Hume Atkins & Co., electric light fixtures; Davis

Bennet & Co., Ltd., sanitary fittings; Comyn Ching & Co., door furniture; J. Gibbons & Co., Ltd., casements; A. Brown & Co., Ltd., cloakroom fittings; C. W. Lack and Sons, water supply.

THE WEEK'S BUILDING NEWS

LONDON & DISTRICT (15 MILES RADIUS)

BERMONDSEY. *Flats, etc.* The Bermondsey B.C. is to erect 39 flats, two shops, dining-rooms, warehouse and builder's store on the Cathay Street areas, at a cost of £26,842.

BERMONDSEY. *Welfare Centre.* Bermondsey B.C. is to reconstruct the Rotherhithe welfare-centre on a new site.

BERMONDSEY. *Shops, etc.* Plans passed by Bermondsey B.C.: Rebuilding of "Marquis of Wellington" p.h., Gedling Street, Watney, Combe, Reid & Co.; shops and flats, Albion Street, Purvis and Purvis; flats, Larnaca Street and Stanworth Street, Gale, Heath and Sneath; rebuilding of sawmills, 11-21 Keetons Road, Messrs. H. and G. Bisley.

BETHNAL GREEN. *Dwellings.* The L.C.C. is to redevelop an area of 46 acres near Cambridge Road, Bethnal Green, at a total cost of £1,810,000. The erection of dwellings on the area will cost £560,000.

CARSHALTON. *Extensions.* The L.C.C. is to erect an anti-toxin establishment at the Queen Mary's Hospital, Carshalton, at a cost of £116,440.

CROYDON. *Houses, etc.* Plans passed by the Croydon Corporation: 63 houses, Tideswell Road, Addington, Messrs. Bennett, Worskett and Bennett; 66 houses, Lodge Lane, Addington, First National Housing Trust, Ltd.; five houses, Links View Road, Messrs. R. Markwick & Co.; 24 houses, Davidson Road, Mr. W. A. Jones.

CROYDON. *Rebuilding.* The Croydon Education Committee is to rebuild Lady Edridge School at a cost of £28,520, and Purley Oaks School, at a cost of £34,800.

CROYDON. *Extensions.* The Croydon Education Committee has approved plans for extensions at Selhurst grammar school at a cost of £26,450.

CROYDON. *Reconditioning.* The Croydon Education Committee has approved plans for reconditioning the Whitehouse Manor school at a cost of £10,850.

DARTFORD. *Extensions.* The L.C.C. is to erect two isolation blocks and further nursing accommodation at the Southern Hospital, Dartford, at a cost of £91,286.

HAMMERSMITH. *Shops, etc.* Plans passed by Hammersmith B.C.: Alterations and additions, King Street, Messrs. Joseph; laundry and garage extensions, Pennard Road, Mr. G. G. Rogers; extension of "Crown and Sceptre" p.h., Goodwin Road, Messrs. Nowell Parr and Son; extension of Cadby Hall, Hammersmith Road, Messrs. Holman and Goodham; flats, Goldhawk Road, Messrs. Roy Gibson, Ltd.; cinema, Uxbridge Road, Merrick, Graves & Co., Ltd.; flats, Crisp Road, Mr. Donald Hamilton; shops, Goldhawk Road, Messrs. Walter Hearn and Chuter; reconstruction of "Wheatheaf" p.h., Hammersmith Road, Messrs. Charrington & Co., Ltd.

HARROW. *Library.* The Middlesex Education Committee has purchased land in Christchurch Avenue, Kenton, Harrow, for the erection of a county library branch.

HAYES. *School.* The Middlesex Education Committee has purchased land on the Frogmore Farm estate, Hayes, for the erection of an elementary school.

LADBROKE GROVE. *Operating Theatre.* The L.C.C. is to erect a new operating theatre at St. Charles Hospital, Ladbroke Grove, at a cost of £9,070.

LADYWELL. *Extensions.* The L.C.C. is to erect new nursery accommodation at the Ladywell institution, at a cost of £81,600.

SOUTHERN COUNTIES

BOURNEMOUTH. *Flats, etc.* Plans submitted to Bournemouth Corporation: 11 bungalows, Paddington Grove, Messrs. Richard Lee & Co.; flats, Pine Tree Glen, Messrs. Latimer & Co.; hotel, Manor Road, Messrs. J. M. Saunders; 20 flats, Manor Road, Mrs. L. Rowley; block of flats, Waverley Road, Messrs. A. C. Barnes & Co.; flats, Glen Fern Gardens, Messrs. Young and Lewis; flats, Boscombe Spa Road, Messrs. Dacombe and Son; two blocks of six flats each, Boscombe Cliff Road, Mr. S. Kermode.

BURSTOW. *Small Holdings.* The Surrey C.C. has purchased the West Park estate, Burstow, for the provision of small holdings.

ETON. *Housing Scheme.* The Eton U.D.C. has acquired four acres in Eton Wick Road, Boveney, Bucks, for a housing scheme.

FOLKESTONE. *Public Library.* The Folkestone Corporation is to erect a public library at a cost of £9,949.

LANCING. *Health Centre.* The West Sussex C.C. has purchased a site in Irene Avenue, Lancing, for the erection of a health centre.

MIDDLESEX. *Technical Institute.* The Middlesex Education Committee has obtained sanction to borrow £105,706 for the erection of a technical institute at Hendon.

RUSTINGTON. *Highways Depot.* The West Sussex C.C. has purchased a site in Worthing Road, Rustington, for the erection of a highways depot.

WEST SUSSEX. *Police Headquarters, etc.* The West Sussex C.C. has purchased sites at Lancing for a police sub-station and at Goring for police quarters.

WEST SUSSEX. *Schools.* The West Sussex Education Committee has purchased sites for schools at East Wittering and Littlehampton.

SOUTH-EASTERN COUNTIES

DARTFORD. *Flats, etc.* Plans passed by the Dartford Corporation: 120 flats, Wentworth Drive, James Road and Ross Close, Messrs. Arthur Rowlands & Co., Ltd.; eight houses, Shepherds Lane and Princes Road, Messrs. H. C. Wright & Co., Ltd.

DARTFORD. *Municipal Building.* The Dartford Corporation is to seek sanction for a loan in connection with the erection of the proposed municipal buildings.

DARTFORD. *Meter Department.* The Dartford Corporation is to construct a meter department at the power station at a cost of £5,000.

EASTERN COUNTIES

BEDFORD. *School.* The Bedfordshire Education Committee is to erect a secondary school for boys at Luton at a cost of £63,596.

CHELMSFORD. *Council Offices.* The Chelmsford R.D.C. has obtained sanction from the Ministry of Health to proceed with the erection of council offices in London Road, Chelmsford, at a cost of £20,000.

CHELMSFORD. *School.* The Chelmsford Corporation has obtained sanction to borrow £93,253 for the erection of an elementary school at Mouldham.

KESTEVEN. *Small Holdings.* The Kesteven C.C. has purchased land at a cost of £18,177 for the provision of small holdings.

MIDLAND COUNTIES

COVENTRY. *Development.* The Coventry Corporation has approved plans for the development of the airport at a cost of £44,287.

LEICESTER. *School.* The Leicester Education

Committee is to erect an infants' school in Ingle Street at a cost of £20,522.

LUTTERWORTH. *Housing Scheme.* The Lutterworth R.D.C. has acquired a site in Frolesworth Road, Claybrooke Magna, for a housing scheme.

MANSFIELD. *Shops and Offices.* The Mansfield Corporation has obtained sanction to borrow £9,600 for the erection of shops and offices in Regent Street.

MANSFIELD. *Houses, etc.* Plans passed by the Mansfield Corporation: 16 houses, Beech Hill Drive, Messrs. C. H. Hill and Sons, Ltd.; 36 houses, The Rock and Prospect Street, H. Blythe and Son.

MIDDLETON. *Public Baths.* The Middleton Corporation is to erect public baths in Fountain Street at a cost of £34,400.

NORTHAMPTON. *School Improvements.* The Northampton Education Committee has obtained sanction to borrow £17,853 for school improvements.

SHEFFORD. *School.* The Bedfordshire Education Committee is to erect an elementary school at Shefford at a cost of £26,237.

STAFFORD. *Houses.* The Modern Housing (Blackpool), Ltd., are to erect 43 houses on a site adjoining Uttoxeter Road and Sandon Road, Meir, Staffs.

NORTHERN COUNTIES

BLACKPOOL. *Parking Station.* The Blackpool Corporation has obtained sanction to borrow £117,311 for the construction of a parking station.

BOOTLE. *Social Centre, etc.* The Bootle Corporation has had a report by the Borough Engineer on a scheme for provision of additional accommodation by demolition of 2, 4, 6 and 8 Trinity Road, and erection of a new building on the site, at an approximate cost of £62,000, exclusive of furniture, and alternative schemes for conversion of large hall and lecture hall into offices, without extending the present building; erection of a new social centre and erection of a new civic centre. The Finance Committee is to examine in detail the sketch plans and investigate the whole of the details, estimates of cost and circumstances in connection therewith, with a view to the submission to the Council of a final and complete scheme.

BOOTLE. *Dwellings.* The Bootle Corporation has instructed the Borough Engineer to prepare a lay-out plan for erection of working-class dwellings on 28 acres at Ford.

BOOTLE. *Coroner's and Juvenile Courts.* The Bootle Corporation has appointed a sub-committee to consider the provision of accommodation for Coroner's Court and Juvenile Court.

HYDE. *Extensions.* The Hyde Corporation is to provide staff accommodation at the borough hospital at a cost of £2,450.

RAWTENSTALL. *Public Baths.* The Rawtenstall Corporation has decided in favour of the provision of public baths, and asked the Health Committee to consider as to the type of public baths required.

REDCAR. *Houses.* Plans passed by the Redcar Corporation: 16 houses, Sandringham Road, Mr. F. Bainbridge; six houses, Tweed Road, Messrs. Mansell and Sockett; hall, etc., Lord Street, Rev. H. Robson.

WALES

SWANSEA. *Houses, etc.* Plans passed by the Swansea Corporation: 11 houses, Lan Street, Messrs. Walters and Johns; warehouse and showroom, Northampton Place, Messrs. J. A. Bailey and Sons; 9 houses, Langland Bay Road, Mr. A. E. Wright; office and showroom, Carmarthen Road, Fforestfach, Mr. J. Owen Smith; 16 houses, Wimmerfield Estate, Mr. Syd. Davies.

SWANSEA. *School.* The Swansea Education Committee is to purchase a site at Mumbles for the erection of a junior and infants' school.

SWANSEA. *Reconstruction.* The Swansea Corporation has approved plans for the reconstruction of the Morriston branch library.

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.		II.				I.		II.				I.		II.				
		s.	d.	s.	d.			s.	d.	s.	d.			s.	d.	s.	d.			
A	ABERDARE ...	S. Wales & M.	1	7	1	2	A ₁	EASTBOURNE ...	S. Counties	1	6	1	1	A	Normanton ...	Yorkshire	1	7	1	2
A	Aberdeen ...	Scotland	1	7	1	2	A ₁	Rhbf Vale ...	S. Wales & M.	1	6	1	2	A	Northampton ...	Mid. Counties	1	7	1	2
A ₁	Abergeenny ...	S. Wales & M.	1	6	1	2	A ₂	Edinburgh ...	Scotland	1	7	1	2	A	North Shields ...	N.E. Coast	1	7	1	2
A ₁	Abingdon ...	S. Wales & M.	1	6	1	2	A ₂	Exeter ...	S.W. Counties	1	6	1	1	A	North Staffs ...	Mid. Counties	1	7	1	2
A	Accrington ...	N.W. Counties	1	7	1	2	B	Exmouth ...	S.W. Counties	1	5	1	0	A ₁	Norwich ...	E. Counties	1	6	1	2
A ₂	Addlestone ...	S. Counties	1	6	1	1	A ₃	FELKINSTONE ...	E. Counties	1	5	1	1	A	Nottingham ...	Mid. Counties	1	7	1	2
A	Adlington ...	N.W. Counties	1	7	1	2	A ₃	Filey ...	Yorkshire	1	5	1	1	A	Nuneaton ...	Mid. Counties	1	7	1	2
A	Aldrie ...	Scotland	1	7	1	2	A ₁	Fleetwood ...	N.W. Counties	1	7	1	2	A ₂	OKHAM ...	Mid. Counties	1	5	1	1
A	Aldburgh ...	E. Counties	1	7	1	2	B ₁	Folkestone ...	S. Counties	1	4	1	0	A	Oldham ...	N.W. Counties	1	7	1	2
A	Aldeburgh ...	N.W. Counties	1	7	1	2	B ₂	Frome ...	N.W. Counties	1	7	1	2	A ₁	Oswestry ...	N.W. Counties	1	5	1	1
A ₂	Apfelbach ...	N.W. Counties	1	3	1	1	A	GATESHEAD ...	N.E. Coast	1	7	1	2	A	Oxford ...	S. Counties	1	6	1	2
A ₂	Ashton-under-Lyne ...	N.W. Counties	1	7	1	2	A	Gillingham ...	S. Counties	1	5	1	0	A ₁	PAISLEY ...	Scotland	1	7	1	2
B	Aylesbury ...	S. Counties	1	5	1	0	A ₁	Glamorgan-Valley District	S. Wales & M.	1	6	1	2	A ₁	Pembroke ...	S. Wales & M.	1	3	1	0
B	BANBURY ...	S. Counties	1	5	1	0	A	Glasgow ...	Scotland	1	7	1	2	A ₁	Perth ...	Scotland	1	7	1	2
A ₁	Banger ...	S. Counties	1	4	1	0	A ₂	Glastonbury ...	S.W. Counties	1	6	1	1	A	Peterborough ...	E. Counties	1	6	1	2
A ₁	Barnard Castle ...	N.E. Coast	1	5	1	1	A ₂	Glebe ...	Yorkshire	1	6	1	1	A ₁	Plymouth ...	S.W. Counties	1	7	1	2
A ₁	Barnesley ...	Yorkshire	1	5	1	2	A ₂	Gosport ...	S. Counties	1	6	1	1	A ₁	Pontefract ...	Yorkshire	1	7	1	2
B	Barnstaple ...	S.W. Counties	1	5	1	0	A ₂	Grantham ...	Mid. Counties	1	5	1	1	A ₁	Portsmouth ...	S. Wales & M.	1	6	1	2
B	Barrow ...	N.W. Counties	1	7	1	2	A ₂	Graveland ...	S. Counties	1	6	1	2	A	Preston ...	N.W. Counties	1	7	1	2
B	Barry ...	S. Wales & M.	1	7	1	2	A ₁	Greenock ...	Scotland	1	7	1	2	A	QUEENSFERRY ...	N.W. Counties	1	7	1	2
B	Basingstoke ...	S.W. Counties	1	6	1	0	B	Grimsby ...	Mid. Counties	1	7	1	2	A ₁	READING ...	S. Counties	1	6	1	2
A ₂	Bath ...	S.W. Counties	1	7	1	2	B	Guildford ...	S. Counties	1	5	1	0	B	Reigate ...	S. Counties	1	5	1	1
A	Batley ...	E. Counties	1	7	1	2	A	HALIFAX ...	Yorkshire	1	7	1	2	A ₁	Retford ...	Mid. Counties	1	5	1	1
A ₂	Bedford ...	E. Counties	1	6	1	1	A	Hanley ...	Mid. Counties	1	7	1	2	A ₁	Rhondda Valley	S. Wales & M.	1	6	1	2
A ₂	Berwick-on-Tweed ...	N.E. Coast	1	6	1	1	A ₁	Harnogate ...	Yorkshire	1	7	1	2	A ₁	Ripon ...	Yorkshire	1	5	1	1
A ₂	Bewley ...	Mid. Counties	1	6	1	1	A ₂	Hartlepool ...	N.E. Coast	1	7	1	2	A	Rochdale ...	N.W. Counties	1	7	1	2
A ₂	Bicester ...	S. Counties	1	5	1	0	A ₂	Harwich ...	E. Counties	1	5	1	0	B	Rochester ...	S. Counties	1	5	1	0
A	Birkenhead ...	N.W. Counties	1	7	1	2	B	Hastings ...	S. Counties	1	5	1	0	A ₁	Ruabon ...	N.W. Counties	1	6	1	2
A	Birmingham ...	Mid. Counties	1	7	1	2	B	Hatfield ...	S. Counties	1	6	1	1	A ₁	Rugby ...	Mid. Counties	1	6	1	2
A ₁	Bishop Auckland ...	N.E. Coast	1	7	1	2	B ₁	Hereford ...	S.W. Counties	1	5	1	0	A ₂	Runcley ...	Mid. Counties	1	6	1	2
A ₁	Blackburn ...	N.W. Counties	1	7	1	2	A ₂	Hertford ...	E. Counties	1	6	1	1	A ₂	Runcorn ...	N.W. Counties	1	7	1	2
A	Blackpool ...	N.W. Counties	1	7	1	2	A ₂	Heysham ...	N.W. Counties	1	7	1	2	A ₁	ST. ALBANS ...	E. Counties	1	6	1	2
A	Blyth ...	N.E. Coast	1	7	1	2	A ₂	Howden ...	N.E. Coast	1	7	1	2	A	St. Helens ...	N.W. Counties	1	7	1	2
B	Bognor ...	S. Counties	1	5	1	0	A ₂	Huddersfield ...	Yorkshire	1	7	1	2	B ₁	Salisbury ...	S.W. Counties	1	7	1	2
A	Bolton ...	N.W. Counties	1	7	1	2	A ₂	Hull ...	Yorkshire	1	7	1	2	B ₂	Scarborough ...	Yorkshire	1	6	1	1
A ₂	Boston ...	Mid. Counties	1	5	1	1	A	ILELEY ...	Yorkshire	1	7	1	2	A	Seinthorpe ...	Mid. Counties	1	7	1	2
A ₂	Bournemouth ...	S. Counties	1	7	1	2	A ₁	Immingham ...	Mid. Counties	1	7	1	2	A	Sheffield ...	Yorkshire	1	7	1	2
A ₂	Bovey Tracey ...	S.W. Counties	1	4	1	0	B ₂	Ipswich ...	E. Counties	1	6	1	1	A ₁	Shipley ...	Yorkshire	1	7	1	2
A ₁	Bradford ...	Yorkshire	1	7	1	2	A ₂	Isle of Wight ...	S. Counties	1	4	1	0	A ₂	Shrewsbury ...	Mid. Counties	1	6	1	1
A ₁	Brentwood ...	E. Counties	1	6	1	1	A	JARROW ...	N.E. Coast	1	7	1	2	A ₂	Skipton ...	Yorkshire	1	6	1	1
A	Bridgend ...	S. Wales & M.	1	7	1	2	A ₁	Kendal ...	N.W. Counties	1	5	1	1	A ₁	Slough ...	S. Counties	1	6	1	1
A	Bridgewater ...	S.W. Counties	1	6	1	0	A ₂	Kewick ...	N.W. Counties	1	5	1	1	A ₁	Solihull ...	Mid. Counties	1	6	1	2
A ₁	Bridlington ...	Yorkshire	1	6	1	1	A ₂	Kettering ...	Mid. Counties	1	6	1	2	A ₂	Southampton ...	S. Counties	1	6	1	1
A	Brighton ...	S. Counties	1	6	1	1	A ₂	Kidderminster ...	Mid. Counties	1	6	1	1	A ₂	Southend-on-Sea ...	E. Counties	1	6	1	2
A	Bristol ...	S.W. Counties	1	7	1	2	B ₁	King's Lynn ...	E. Counties	1	4	1	0	A ₁	Southport ...	N.W. Counties	1	7	1	2
B	Brixham ...	S.W. Counties	1	5	1	0	A	KINGHILLY ...	Yorkshire	1	7	1	2	A	St. Shields ...	N.E. Coast	1	7	1	2
A	Bromsgrove ...	Mid. Counties	1	7	1	2	A ₁	Kendal ...	N.W. Counties	1	5	1	1	A ₁	Stafford ...	Mid. Counties	1	6	1	2
A	Bromyard ...	Mid. Counties	1	5	1	0	A ₂	Kewick ...	N.W. Counties	1	5	1	1	A ₁	Stirling ...	Scotland	1	7	1	2
A	Burnley ...	N.W. Counties	1	7	1	2	A ₂	Kettering ...	Mid. Counties	1	6	1	2	A ₁	Stockport ...	N.W. Counties	1	7	1	2
A	Burslem ...	Mid. Counties	1	7	1	2	B ₁	Kidderminster ...	Mid. Counties	1	6	1	1	A	Stockton-on-Tees ...	N.E. Coast	1	7	1	2
A	Burton-on-Trent ...	Mid. Counties	1	7	1	2	A ₁	King's Lynn ...	E. Counties	1	4	1	0	A	Stoke-on-Trent ...	Mid. Counties	1	7	1	2
A	Bury ...	N.W. Counties	1	7	1	2	A ₂	Leamington ...	Mid. Counties	1	6	1	2	B	Stroud ...	S.W. Counties	1	5	1	0
A ₁	Buxton ...	N.W. Counties	1	6	1	2	A ₁	Leeds ...	Yorkshire	1	7	1	2	A	Sunderland ...	N.E. Coast	1	7	1	2
A ₁	CAMBRIDGE ...	E. Counties	1	6	1	2	A	Leek ...	Mid. Counties	1	7	1	2	A	Swansea ...	S. Wales & M.	1	7	1	2
A ₁	Canterbury ...	S. Counties	1	4	1	0	A ₁	Leicester ...	Mid. Counties	1	7	1	2	A ₂	Swindon ...	S.W. Counties	1	5	1	1
A	Canthelf ...	S. Wales & M.	1	7	1	2	A ₂	Leigh ...	N.W. Counties	1	7	1	2	A ₁	TAMWORTH ...	N.W. Counties	1	6	1	2
A	Carlisle ...	N.W. Counties	1	7	1	2	A ₂	Levens ...	S. Counties	1	5	1	0	B	Taunton ...	S.W. Counties	1	5	1	0
A	Cardmarthen ...	S. Wales & M.	1	5	1	0	A ₂	Lichfield ...	Mid. Counties	1	6	1	1	A	Terris Dist.	N.E. Counties	1	7	1	2
A	Cardmarvon ...	N.W. Counties	1	5	1	0	A ₂	Lincoln ...	Mid. Counties	1	7	1	2	A ₂	Teignmouth ...	S.W. Coast	1	6	1	1
A ₁	Cardnau ...	N.W. Counties	1	7	1	2	A ₂	Liverpool ...	N.W. Counties	1	7	1	2	A	Tedmore ...	Yorkshire	1	7	1	2
A	Castledif ...	Yorkshire	1	7	1	2	A ₂	Lianduno ...	N.W. Counties	1	6	1	1	A ₁	Torquay ...	S.W. Counties	1	6	1	2
A ₂	Chatham ...	S. Counties	1	5	1	1	A ₂	Llanelli ...	S. Wales & M.	1	7	1	2	B ₂	Toro ...	S.W. Counties	1	6	1	2
A ₂	Chelmsford ...	E. Counties	1	5	1	1	A ₂	London (12-miles radius)		1	8	1	3	A ₂	Tunbridge Wells ...	S. Counties	1	5	1	1
A ₂	Cheltenham ...	N.W. Counties	1	5	1	1	A ₂	Long Eaton ...	Mid. Counties	1	7	1	2	A	Tunstall ...	Mid. Counties	1	7	1	2
A	Chester ...	N.W. Counties	1	7	1	2	A ₁	Loughborough ...	Mid. Counties	1	7	1	2	A	Tyne District ...	N.E. Coast	1	7	1	2
A	Chesterfield ...	Mid. Counties	1	7	1	2	A	Luton ...	E. Counties	1	6	1	2	A	WAKEFIELD ...	Yorkshire	1	7	1	2
A	Chichester ...	S. Counties	1	5	1	0	A	Lytham ...	N.W. Counties	1	7	1	2	A	Walsall ...	Mid. Counties	1	7	1	2
A	Chorley ...	N.W. Counties	1	7	1	2	A ₁	MACCLESFIELD ...	N.W. Counties	1	6	1	2	A	Warrington ...	N.W. Counties	1	7	1	2
A ₁	Circenestor ...	S. Counties	1	4	1	0	A ₂	Maidstone ...	S. Counties	1	5	1	1	A ₁	Warwick ...	Mid. Counties	1	6	1	2
A	Citheroe ...	N.W. Counties	1	7	1	2	A ₂	Maier ...	Mid. Counties	1	5	1	1	A ₁	Wellington ...	Mid. Counties	1	6	1	2
A	Clydebank ...	Scotland	1	7	1	2	A ₂	Margate ...	S. Counties	1	4	1	0	A ₁	West Bromwich ...	Mid. Counties	1	7	1	2
A ₂	Codre ...	Mid. Counties	1	7	1	2	A ₂	Matlock ...	Mid. Counties	1	5	1	1	A ₂	Weston-s-Mare ...	W. Counties	1	6	1	1
A ₂	Colchester ...	E. Counties	1	6	1	1	A ₂	Merthyr ...	S. Wales & M.	1	5	1	1	A ₂	Whitby ...	Yorkshire	1	6	1	1
A ₁	Cole ...	N.W. Counties	1	6	1	2	A ₂	Middlesbrough ...	N.W. Counties	1	6	1	1	A ₂	Widnes ...	N.W. Counties	1	7	1	2
A ₂	Colwyn Hay ...	N.W. Counties	1	6	1	1	A ₂	Minchdel ...	N.W. Counties	1	4	1	0	B	Wigan ...	N.W. Counties	1	7	1	2
A ₂	Consett ...	N.E. Coast	1	6	1	2	A ₂	Monmouth ...	S. Wales & M.	1	4	1	0	A ₂	Winchester ...	S. Counties	1	5	1	0
A ₂	Conway ...	N.W. Counties	1	6	1	2	A	& S. and E. Glamorganshire					A ₂	Windsor ...	S. Counties	1	6	1	1	
A ₂	Coventry ...	Mid. Counties	1	6	1	2	A	Morecambe ...	N.W. Counties	1	7	1	2	A	Wolverhampton ...	Mid. Counties	1	7	1	2
A ₂	Cress ...	N.W. Counties	1	6	1	1	A ₁	MAIDSTONE ...	N.W. Counties	1	6	1	2	A ₂	Worcester ...	Mid. Counties	1	6	1	1
A ₂	Cumberland ...	N.W. Counties	1	5	1	1	A ₂	Maier ...	Mid. Counties	1	5	1	1	A ₂	Workop ...	Yorkshire	1	5	1	1
A	DARLINGTON ...	N.E. Coast	1	7	1	2	B<													

* 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. The rates of wages have been revised consequent upon the increase in wages which came into operation on February 1, together with all revisions following authorized annual regratings.

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, adjust-

ment 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

	per hour	s. d.
Bricklayer	1 8 1/2	
Carpenter	1 8 1/2	
Joiner	1 8 1/2	
Machinist	1 8 1/2	
Mason (Banker)	1 8 1/2	
" (Fixer)	1 8 1/2	
Plumber	1 7 1/2	
Painter	1 7 1/2	
Paperhanger	1 7 1/2	
Glazier	1 8 1/2	
Slater	1 8 1/2	
Scaffolder	1 4 1/2	
Timberman	1 3 1/2	
Navy	1 3 1/2	
General Labourer	1 3 1/2	
Lorryman	1 6 1/2	
Crane Driver	1 7 1/2	
Watchman	2 10 0	per week

MATERIALS

EXCAVATOR AND CONCRETOR

	per ton	s. d.
Grey Stone Lime	2 2 0	
Blue Lias Lime	1 18 0	
Hydrated Lime	2 5 0	
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	6 0	per Y.C.
1" Crushed Ballast	7 0	
Building Sand	7 6	
Washed Sand	8 0	
2" Broken Brick	8 0	
Pan Breeze	10 3	
Coke Breeze	8 0	

DRAINLAYER

BEST STONEWARE DRAIN PIPES AND FITTINGS

	per F.R.	s. d.
Straight Pipes	0 9	
Bends	1 0	
Taper Bends	3 6	
Rest Bends	4 3	
Single Junctions	3 6	
Double	4 9	
Straight channels	1 6	
1" Channel bends	2 9	
Channel junctions	4 6	
Channel tapers	2 9	
Yard gullies	6 9	
Interceptors	16 0	
IRON DRAINS:		
Iron drain pipe	2 3	
Bends	5 10 1/2	
Inspection bends	10 7 1/2	
Single junctions	10 4	
Double junctions	16 0	
Lead Wool	6	
Gaskin	5	

BRICKLAYER

	per M.	s. d.
Flettons	2 12 0	
Grooved do.	2 14 0	
Flint 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	
Mithurst 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	20 10 0	
Double Headers	20 10 0	
Glazed Second Quality, Less Buffs and Creams, Add	2 0 0	
Other Colours	5 10 0	
2" Breeze Partition Blocks	1 7	per Y.S.
2 1/2" " " "	1 10	
3" " " "	2 1	
4" " " "	2 6	

MASON

The following d/d F.O.R. at Nine Elms:

	F.C.	s. d.
Portland stone, Whitbed	4 4 1/2	
" Basebed	4 7 1/2	
Bath stone	2 10	
York stone	2 6	
" Sawn templates	7 6	
" Paving, 2"	1 8	F.S.
" " 3"	2 0	

SLATER AND TILER

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

	per M.	s. d.
24" x 12" Duchesses	28 17 6	
22" x 12" Marchionesses	24 10 0	
20" x 12" Countesses	19 5 0	
18" x 10" Viscountesses	15 0 0	
18" x 9" Ladies	13 17 6	
Westmorland green (random sizes)	8 10 0	per ton
Old Delabole slates d/d in full truck loads to Nine Elms Station:		
20" x 10" medium grey	21 11 6	per 1,000 (actual)
" " green	24 7 4	
Best machine roofing tiles	4 5 0	
Best hand-made do.	4 17 6	
Hips and valleys	9	each
" hand-made	9 1/2	
Nails, compo	1 4	
" copper	1 6	

CARPENTER AND JOINER

	F.C.	s. d.
Good carcassing timber	2 2	
Birch	9	as 1" F.S.
Deal, Joiner's	5	
" 2nds	1 3	
Mahogany, Honduras	1 3	
" African	1 1	
" Cuban	2 6	
Oak, plain American	1 0	
" Figured	1 3	
" plain Japanese	1 2	
" Figured	1 8	
" 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	1 1	
Whitewood, American	1 1	
Deal floorings, 3"	18 6	Sq.
" 4"	1 1 6	
" 1"	1 2 0	
" 1 1/2"	1 5 0	
" 1 3/4"	1 10 0	
Deal matchings, 1"	14 0	
" 1 1/2"	15 6	
" 1 3/4"	1 4 0	
Rough boarding, 1"	16 0	
" 1 1/2"	18 0	
" 1 3/4"	1 6 0	
Plywood, per ft. sup.:		
Thickness		
Qualities	A B BB	1" 1 1/2" 2"
d. d. d.	d. d. d.	d. d. d.
Birch 60 x 48	4 2 1/2	5 3 2 1/2 7 5 4 8 6 5
Cheap Alder	2 1 1/2	3 2 1/2 4 3 1/2 5 4 1/2
Oregon Pine	2 1/2	3 2 1/2 4 3 1/2 5 4 1/2
Gaboon	4 3 1/2	5 4 1/2 7 6 1/2 8 7 1/2
Mahogany	6 1/2	7 1/2 8 1/2 9 1/2 10 1/2
Figured Oak	6 1/2	7 1/2 8 1/2 9 1/2 10 1/2
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.)

	per ft. run	s. d.
Tubes 2'-14' long	4 5 1/2	9 1/2 1 1/2 1 1/2
Pieces, 12'-23' long	10 1 1/2	1 1/2 1 1/2 2 1/2 4 9
" 3'-11 1/2' long	7 9	1 1/2 1 1/2 3 1/2
Long screws, 12'-23 1/2' long	11 1 1/2	2 1/2 2 1/2 5 3
" 3" M-1 1/2' long	8 10	1 1/2 1 1/2 3 6
Bends	8 11 1/2	2 7/2 5 2
Springs not socketed	5 7 1/2	1 11 1/2 3 11
Socket unions	2 1/2	3 1/2 5 6 10 1/2
Elbows, square	10 1 1/2	1 1/2 2 1/2 4 3
Tees	1 1/2	1 1/2 1 1/2 2 6 5 1
Crosses	2 1/2	2 1/2 4 1 5 6 10 6
Plain sockets and nipples	3 4	6 8 1 3
Diminished sockets	4 6	9 1 1/2 2 1/2
Flanges	9 1 1/2	1 1/2 1 1/2 2 9
Caps	3 1/2	5 8 1 1/2 2 1/2
Backnuts	2 3	5 6 1 1/2
Iron maul cocks	1 6	2 3 4 2 5 4 11 6
" with brass plugs	4 1/2	7 6 10 1/2 21 1/2

Discounts

	Per cent.	s. d.
Gas	68 1/2	
Water	66 1/2	
Steam	63 1/2	

TUBES

	Per cent.	s. d.
Galvanized gas	61 1/2	
" water	55	
" steam	50	

FITTINGS

	s. d.
Galvanized gas	55 1/2
" water	50
" steam	46 1/2
Roller steel joists cut to length	14 6
Mild steel reinforcing rods, 1"	10 6
" " 1 1/2"	10 3
" " 2"	10 0

SMITH AND FOUNDER—continued

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

PLUMBER

	s. d.
Lead, milled sheets	34 6
" drawn pipes	34 0
" soil pipes	37 0
" scrap	20 0
Solder, plumbers'	1 1 1/2
" fine do.	1 4
Copper, sheet	1 2
" tubes	1 4 1/2
L.C.C. soil and waste pipes	1 0
Plain cast	1 1 1/2
Coated	1 1 1/2
Galvanized	2 0
Holderbats	3 10
Ben-ls	3 9
Shoes	2 10
Heads	4 8

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 6 0
Keene's cement	5 0 0
Gothite plaster	3 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.
Sheet glass, 24 oz., squares n/e 2 ft. s. F.S.	2 1/2
" 26 oz.	3 1/2
Flemish, Arctic, Figures (white)	7 1/2
Blazoned glasses	2 6
Reeded: Cross Reeded	11
Cathedral glass, white, double-rolled, plain, hammered, rimpled, waterwite	6
Crown sheet glass (n/e 12" x 10")	2 0
Flushed opals (white and coloured)	1 0 and 2 0
1" rough cast; rolled plate	6
1" wired cast; wired rolled	10 1/2
1" Georgian wired cast	11 1/2
1" Polished plate, n/e 1 ft.	10 to 12 1/2
" " 2	11 2 1/2
" " 4	12 3 1/2
" " 8	12 9 1/2
" " 20	13 9 1/2
" " 45	13 13 1/2
" " 100	14 0 1/2
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 1" and 1 1/2"	8 1/2 and 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	3 0 9
Linseed oil	gall. 3 5
Boiled oil	3 5
Turpentine	3 9
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

Digging over surface n/e 12" deep and cart away	Y.S.	s. d.
" to reduce levels n/e 5' 0" deep and cart away	Y.C.	2 9
" to form basement n/e 5' 0" and cart away	"	8 6
" " 10' 0" deep and cart away	"	9 0
" " 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

Stoneware drains, laid complete (digging and concrete to be priced separately)	F.R.	s. d.
Extra, only for bends	Each	1 6 2 3
" " junctions	"	2 8 3 9
" " " "	"	3 9 4 6
Gullies and gratings	"	16 6 18 0
Cast iron drains, and laying and jointing	F.R.	5 9 8 3
Extra, only for bends	Each	11 9 17 3

BRICKLAYER

Brickwork, Flettons in lime mortar	Per Rod	£ s. d.
" " 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
" " rising on old walls	"	2 0 0
" " underpinning	"	5 10 0
Fair Face and pointing internally	F.S.	1 1
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	"	7 1/2
Weather pointing in cement	"	10
Slate dampcourse	"	3
Vertical dampcourse	"	1 1

ASPHALTER

1/2" Horizontal dampcourse	Y.S.	s. d.
1/2" Vertical dampcourse	"	4 9
1/2" paving or flat	"	7 9
1/2" paving or flat	"	6 3
1/2" x 6" skirting	F.R.	7 6
Angle fillet	"	2 1/2
Rounded angle	"	2 1/2
Cesspools	Each	5 6

MASON

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

SLATER AND TILER

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

CARPENTER AND JOINER

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

CARPENTER AND JOINER—continued

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

SMITH AND FOUNDER

Rolled steel joists, cut to length, and hoisting and fixing in position	Per cwt.	£ s. d.
Riveted plate or compound girders, and hoisting and fixing in position	"	16 6
Do., stanchions with riveted caps and bases and do.	"	10 6
Mild steel bar reinforcement, 1/2" and up, bent and fixed complete	"	19 0
Corrugated iron sheeting fixed to wood framing, including all bolts and nuts 20 g.	"	17 6
Wrot-iron caulked and cambered chimney bars	F.S.	11
" " " " " " " "	Per cwt.	10 0

PLUMBER

Milled lead and labour in flats	cwt.	£ s. d.
Do. in flashings	"	2 5 0
Do. in covering to turrets	"	2 6
Do. in soakers	"	14 0
Labour to welded edge	F.R.	1 19 9
Open copper nailing	"	3 1/2
Close	"	3
Lead service pipe and fixing with pipe hooks	F.R.	s. d.
Do. soil pipe and fixing with cast lead tacks	"	1 2 1 4 1 8 1/2 2 7 3 6
Extra, only to bends	Each	—
Do. to stop ends	"	6 1/2 8 9 11 1 0
Boiler screws and unions	"	3 3 3 9 5 0 8 0
Lead traps	"	—
Screw down bib valves	"	6 9 9 6 11 0
Do. stop cocks	"	7 0 9 6 12 6
4" cast-iron 1/2-rd. gutter and fixing	"	—
Extra, only stop ends	F.R.	1 0
Do. angles	"	1 0
Do. outlets	"	1 6
4" dia. cast-iron rain-water pipe and fixing with ears cast on	F.R.	2 9
Extra, only for shoes	Each	1 2
Do. for plain heads	"	1 3
" " " " " " " "	"	5 6

PLASTERER AND TILING

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

GLAZIER

21 oz. sheet glass and glazing with putty	F.S.	s. d.
26 oz. do. and do.	"	6 1/2
Flemish, Arctic Figured (white) and glazing with putty	"	7 1/2
Cathedral glass and do.	"	1 1
Glazing only, British polished plate	"	1 2
Extra, only if in beds	"	7
Washleather	F.R.	2 4

PAINTER

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