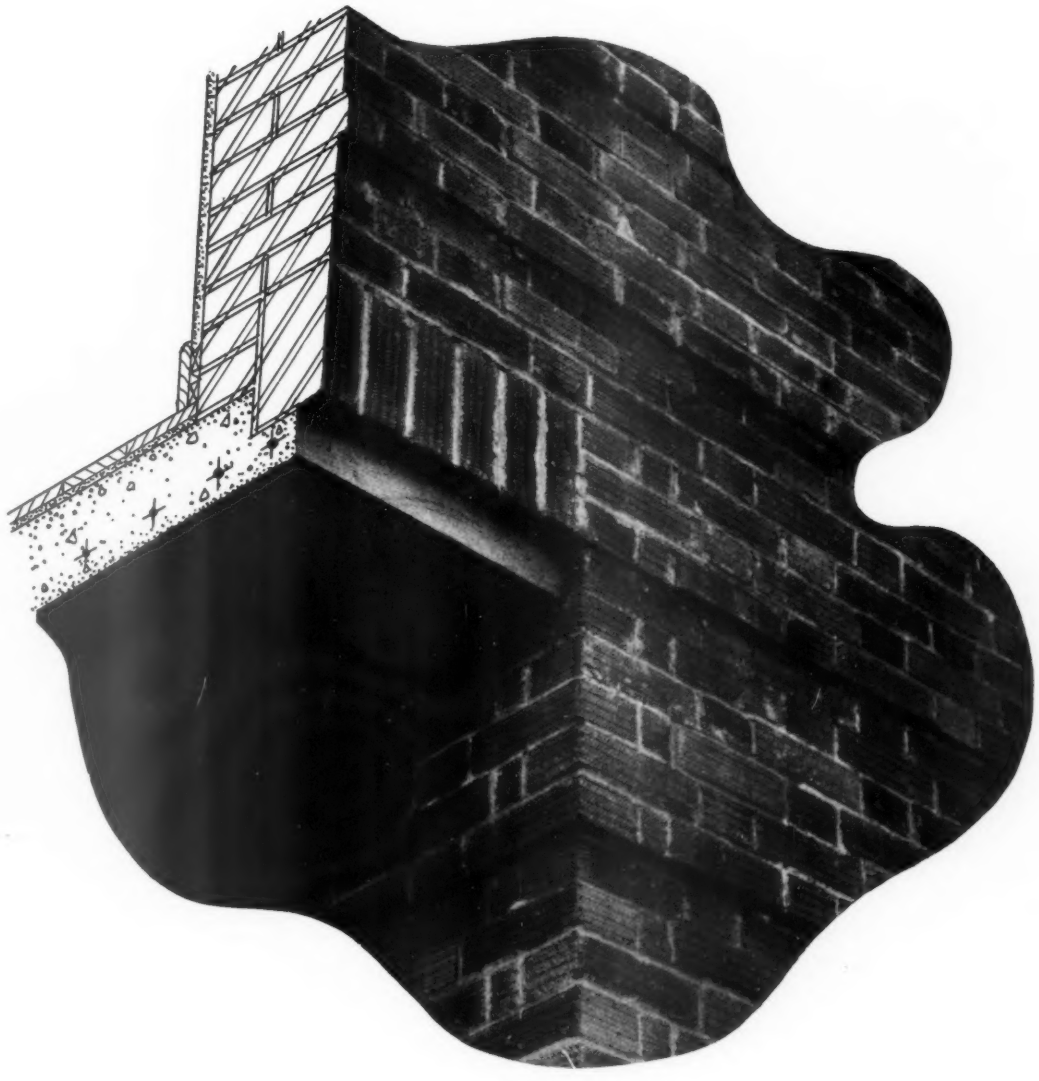

BRICK CONSTRUCTION

There is usually more than one way of building any detail, but in brick construction the variations are unlimited. Here is a detail of brickwork around a wide entrance to a cinema—the Phorpres bricks are carried simply and honestly on a lip formed in the edge of the concrete slab floor.

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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, AUGUST 25, 1938 NUMBER 2275 : VOLUME 88

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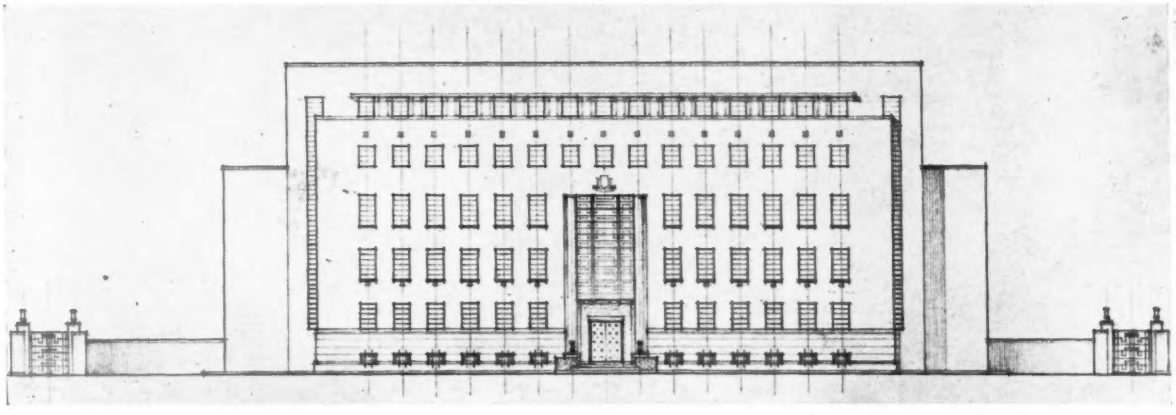
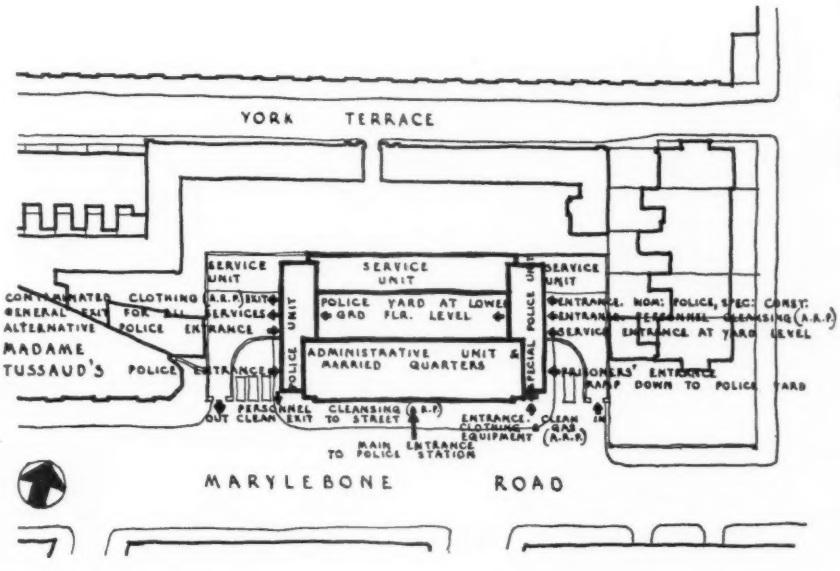
THE MARYLEBONE COMPETITION

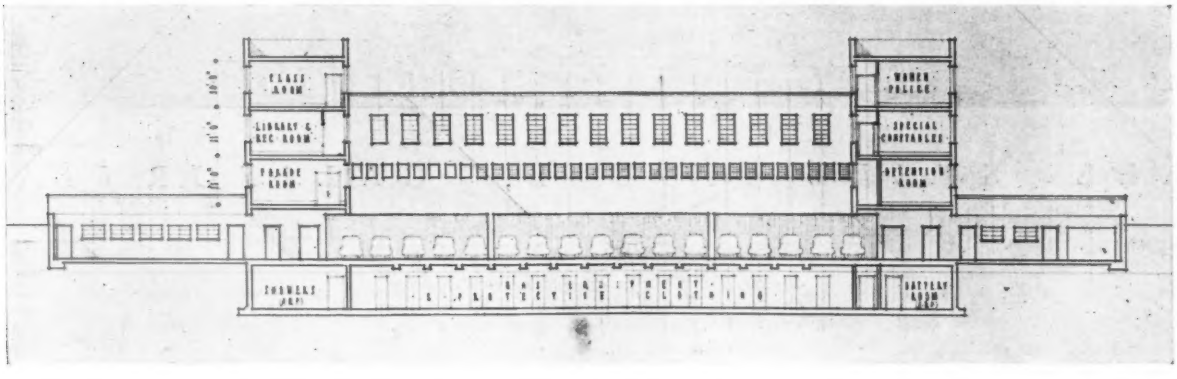
PROPOSED NEW POLICE STATION



WINNING DESIGN: BY VINE AND VINE

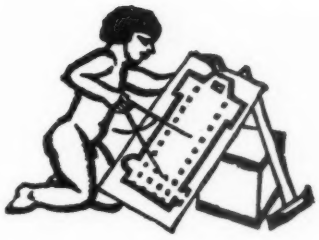


ON this page we reproduce the main elevation (to Marylebone Road), site plan and section of the winning design in the Marylebone competition; the plans of this scheme, together with the other premiated designs and assessors' report, are reproduced on pages 313-317.



ALL STEEL HOUSE, CALIFORNIA

Occupied by Josef von Sternberg, the film director, this house in the San Fernando Valley provides the complete antithesis to the luscious historical motion pictures with which the owner's name is associated. The architect was Richard J. Neutra.



MR. SYMONS' SECOND SELF

" Our reason," said Fénelon, " is derived from the clearness of our ideas." But our wisdom, we might add . . . is to be found above all in those ideas which are not yet clear.

—Maeterlinck : Wisdom and Destiny.

Two year old, playing drearily with some wooden bricks : " I sometimes wonder whether all this is really worth while."

—Punch.

AN ornament of the profession, who was reading Maeterlinck as a bedside book, once pronounced him excellent ; adding that he could not understand why he was not universally used as an anæsthetic. Even so, architects in general may not nowadays read much Maeterlinck, particularly as he is not yet included in the Penguin Series.

Punch is different. With the special difference that to appreciate the depth and form of much of its contents it may not be necessary to buy a copy.

Given an architect who can afford a holiday, or, more commonly, who has taken one ; given a sheltered spot for him to sit in the sun, a novel finished and nothing to do till lunch, no young architect would fail to note the human values of the chain of philosophical concepts contained in *Punch's* joke, and hardly an older architect that would not murmur " the child is father to the man."

If a breeze sufficiently cool to prevent sleep was playing around our architects' necks (and who can imagine otherwise ?) a train of thought would start from this joke in both their minds.

It might, for those not away in August, be more enheartening to follow the reverie of youth. But in this case there would be the difficulty of understanding many of the words ; and after all, youthful reverie has a best public of only one.

The Mature Architect is another story. Hardly a heart which does not warm to him. He may at 45 have his little ways, but no one can doubt the silver grandeur of his realism. Indeed, no.

The Mature Architect's figure is still good, and his face still holds signs of intelligence. And there is little sign in this remarkable man of how his views have changed in twenty years.

In former times the passion of the middle class for deception in their houses shocked him deeply ; he fought against the dreadful hankerings of client after client ; he came near tears when living rooms so carefully thought about were first seen in stricken rout behind the furniture and pictures of the owners.

He is wiser now. He gives clients as much of what he would like to do as they seem able to stand, and does not now lose sleep over a dozen jobs in which they could stand exactly nothing at all. The tenants of a flat block or two may abuse him in voices rendered hoarse by conversing above the neighbour's vacuum-cleaner. He does not mind. Such tenants imagine they are renting an architect's idea of proper living conditions, not (as is in fact the case) the tortured embodiment of promoters' requirements on an entirely unsuitable site.

At this point, if the breeze is steady enough, the Mature Architect winces as he faces his eternal enemy : the necessity for continuing to live and for, in consequence, not antagonizing clients. The client, in most cases, wants building only to make as much out of a site as the law, the local authorities, the police and the neighbours will let him. The architect, individually, lives by being his client's henchman, and all his poverty of social influence flows from this.

Before taking up his position in the sun, our Mature Architect had, of course, heard or read Mr. A. J. Symons' magnificent lecture called " The Rights of Leisure,"* in which his profession has the living conditions of today put on a plate before it in terrible unspoken accusation. All the sensitive man's anger at injustice rises in our hero as he thinks of that denunciation. Who knows better than he the detestable qualities of modern flats, the oppression which their scale causes in crowded cities, the horror as one pictures the microbe antics in a Bed-Sit-Kitch ? Does Mr. Symons know the bitterness of architects at seeing the menace spreading where nothing justifies it—spreading to a northern city where £200 a year flats go like bargain remnants while four miles away seven-roomed houses can be had for a £50 rent ?

The breeze turns colder. The Mature Architect sits up. And yet, he considers, what have architects done to prove they do not all share the outlook of the can-opener and the luxury flatlet ?

Individually, nothing ; individually they can do nothing.

But collectively . . . ? Surely now and then a grand gesture might be made—a Presidential Address—which exposes with rolling epithets and ghastly detail a nation who do not even try to aim at a better living than the forty-foot plot and castles of minimum cabins. The good it would do—from architects !

And the publicity . . . official architecture would be nothing to it.

---

* Reprinted in the R.I.B.A. *Journal* for August 15.

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NOTES & TOPICS

THIS EXAM. BUSINESS

I HAVE just been shown two letters which this JOURNAL has received during the past week, both of them about correspondence schools. From enquiries made I gather that the number of correspondence courses in architecture is growing, and there is at least one which, for a sum of ten or twelve pounds, will get you through the R.I.B.A. Final and give you all the necessary instruments and books. It is obviously impossible to guarantee that the student will pass, but this college does the next best thing and will refund the fees if he fails.

*

Now anyone who can pass the R.I.B.A. Inter. and Final has just as good qualifications (officially) as anyone else. Examinations are admittedly no test of real ability (how many architects have spent the pre-examination evening memorizing facts they will do their best to forget the next evening?) but nobody has so far evolved a better test.

*

I do not pretend to know how correspondence courses are managed nowadays, but I find it difficult to believe that any form of tuition by post can possibly be as good as studio work with a good teacher.

*

The R.I.B.A. asks all its members to encourage assistants in their offices to attend at least a part-time school; or to help them, after two or three years, to move to an office where they can so attend, if it is impossible at the moment.

*

One therefore assumes that it is youths in non-R.I.B.A. or non-architectural offices who are largely recruited for the correspondence schools, and with the passing of the Registration Act, some ruling from the profession concerning their advantages or disadvantages might be very advisable.

*

No one will object to the idea of a "crammer," by post or otherwise, for six months before the Intermediate or Final. Such intensive try-outs have been to my knowledge very valuable and extremely cheap. But to embark on one's whole theoretical training by post is another matter.

ROYAL CLEAN-UP

I see that Mr. Brian O'Rorke has been given the job of redecorating the L.M.S. Royal train. I hope that means he will have a free hand to scrap the existing *décor* and start from zero; and start, that is, without any Court officials or railroad connoisseurs at his elbow, fighting to maintain the appalling decorative standards that seem to be felt appropriate on these occasions.

*

I remember inspecting some of the Royal trains before when they have been redecorated (each of the four lines maintains its own), and the impressions of silk drapings, brocades and tapestries were hard to efface.

*

One likes to imagine a hint has gone forth from exalted quarters that perhaps brocade and tapestries might be shelved for the future, and that Mr. O'Rorke's appointment is one of the first fruits of it.

*

Incidentally, this precedent should strengthen the mutual desire of Mr. G. Grey Wornum and Sir Percy Bates to put over some good contemporary design when they produce their *Queen Elizabeth* interiors for Royal inspection later in the year.

BRICKS

All of us know that the prices of building materials fluctuate. And nearly all of us are far too busy to wonder why, or whether any regulation is possible or already in existence.

*

Just now and then, however, a little information filters through to us; and with nicely detached interest we murmur: "It all seems very odd."

*

Bricks, for instance. Two recent news items tell me that north-country brick manufacturers are gravely concerned about the sale of south-country bricks in their areas.

*

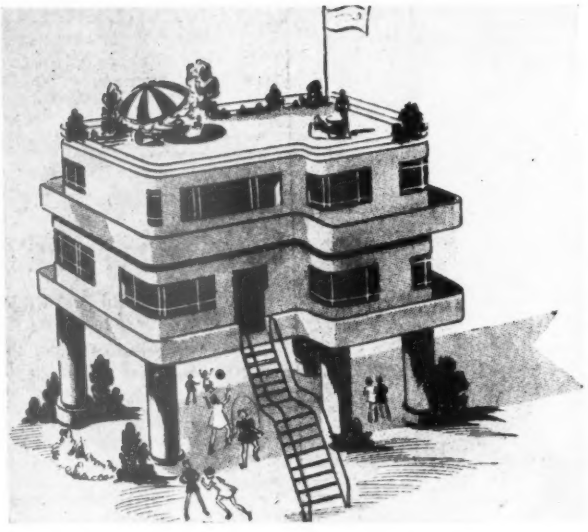
I'm sure they are. But that is not all. One news item goes on to say that north-country brick manufacturers do not admit that southern bricks are really cheaper in the north; that any further setback in the (northern) industries may mean the closing down of many small fields; and that this is another example of the drift from north to south which is so deplorable.

*

To the mere architect there seems a *non sequitur* or two here, and he is in the nice position of agreeing with both sides. A few standardized-quality bricks obtainable everywhere *are* very useful for everyday use. On the other hand, smaller local fields producing reliable local facings and commons at a reasonable price seem one of the most healthy and economic forms of dispersed industry. A compromise blessed by B.I.N.C. ought not to be impossible—if the rival cases are clearly stated.

THE PERILS OF THE INTERVIEW

Mr. Oliver Hill, interviewed by a correspondent of the Manchester *Evening Chronicle*, although reluctant, "was



eventually persuaded to tell me a little of what he was doing."

*

His views may have acquired a touch of added colour by the time they were in print—as long as they contributed to interesting the public in architecture, that does not matter.

*

But it does seem a pity that the Features Editor demanded an illustration that day. The Art Department obliged (above).

BERKELEY SQUARE

I referred last week to a paragraph in the *Daily Telegraph* about Mr. Hector Hamilton, and repeated that newspaper's statement that Mr. Hamilton was the architect of the building in Berkeley Square which has been taken over by the Air Ministry. Messrs. Gordon Jeeves and Mr. Hamilton were associated architects for this building; and I am sorry that I (and the *Daily Telegraph's* "Peterborough") did not say so.

FITNESS FOR PURPOSE

This same building was favourably mentioned by a correspondent of *The Times* as being functionally fit for its purpose; which caused Sir E. Owen Williams to enter the fray.

*

Sir Owen contends, with a forceful reasonableness, that fitness for purpose of a building cannot be judged finally unless the "fitness" of that particular building on that site has been considered.

*

Here the fat is in the fire with a vengeance. London still has a few areas which are, or were, primarily residential. It also had the City and one or two other spots which were centres for business, law and so on. It was a convenient and sensible arrangement.

*

But in the last ten years the convention has lapsed. Office blocks, flat blocks, big stores have sprung up wherever a good situation was available—good, that is, for a large building without regard to where other buildings of its type were grouped or might be grouped.

*

Flat blocks may not be easy to subject to grouping in particular areas, but office buildings are.

*

If a big firm moves from a crammed City street to a pleasant square near, say, Regent's Park, it is very pleasant for the firm. It is not so pleasant for Regent's Park inhabitants, and as the process continues it destroys several advantages for the general public without any return save that the first office building in a square has, for a few years, a better outlook than it would have had in the City—at a much cheaper price.

*

Some kind of zoning of buildings by class appears the only method of arresting this process.

A.R.P. AGAIN

Lord Forbes, of whom I must confess I have never previously heard, appears to have some of the right ideas on A.R.P. in his *Daily Express* articles lately. As he points out, the construction of complicated air raid shelters is going to be of little use unless the minimum standard of efficiency is to be that of resistance to direct hits from high-explosive.

*

Having made that point, he asks whether we can contemplate providing such shelters for the entire population, irrespective of the military value of their occupation. And the answer, he seems to think, is—No.

*

Once it is accepted that high-explosive and not gas is the foremost danger from the air—and that *is* generally accepted now—one is forced to agree with Lord Beaverbrook's recruit that efficient shelters cannot really be contemplated for every citizen.

*

The solution then is evacuation, with protection on the spot only for essential workers.

*

It seems to me, therefore, that apart from what we now include under A.R.P., we must add provision for a vastly improved road system (which could be put in hand at once), and the working out of plans for temporary townships in the north and west, to house the civil population (which could be started immediately on the outbreak of war).

OUTSIDE THE OFFICE

Two workmen prodding among a score of pipes and cables in a shallow trench :—

1st W.: "*'Ere* it is, Alfred!"

2nd W.: Where?—Oh, uh-huh . . . I sye, *George*—whats'er time?"

1st W.: "Don't know—just after three, I should sye."

2nd W.: "*Three?* Well, cover the blasted thing up again, quick as knife. We'll be 'ere 'arf the night if we find it now."

ASTRAGAL

NEWS

POINTS FROM THIS ISSUE

POSITION OF THE BUILDING INDUSTRY

"The position of the building industry is less satisfactory, activity, though at a high level, being lower than a year ago," states the current issue of *The Building Industries Survey*; "unempl oymentin the industry, measured on a comparable basis, is the highest for the time of year since 1934, and the percentage of insured workers unemployed is the highest for the time of year since 1935.

"Housing activity is falling off in England as a result of a marked decline in the south. Conditions in the Midlands are stable, and the North of England and Scotland continue to show increases. In recent months plans approved for houses have been well maintained, but past plans provide a basis for the expectation of a continuance of a fall in activity, especially on the part of private enterprise. Building by local authorities is likely to continue to increase, particularly since the reduction in some rates of subsidy at the end of the year provides a strong inducement to complete the houses affected as early as possible."

AERODROMES AND TOWN AND COUNTRY PLANNING

The Department of Health for Scotland has circulated to all planning authorities in Scotland copies of a pamphlet* prepared and issued by the Air Ministry on the planning of aerodromes. This pamphlet explains, in the light of the recommendations in the Maybury report, what are the minimum requirements for the landing area, flightways and approaches for a "standard aerodrome," which is defined as an aerodrome which can be used for regular air line services in all weathers and at all hours of the day and night.

As the pamphlet indicates the conception of a "planned" aerodrome arose from the obvious disadvantages of the earlier aerodromes. Emphasis is laid also on the necessity for planning the surroundings of the aerodrome with a view to ensuring that building development will not take place in positions or be of such a height or character as to constitute danger to aircraft.

The site for an aerodrome ought to be considered before the need for the aerodrome arises, so that when the time comes to construct the aerodrome suitable land for the purpose is available and the air approaches to it have not been obstructed by inappropriate development. The powers available to local authorities under the Town and Country Planning (Scotland) Act, 1932, are adequate to enable the land to be reserved and building development around it controlled.

* *The Principles Governing the Planning and Zoning of Land Aerodromes*, published for the Air Ministry by H.M. Stationery Office, price 6d. net.

THE ARCHITECTS' DIARY

Thursday, August 25.

POLYTECHNIC SCHOOL OF ARCHITECTURE. *Exhibition of Students' Designs. At the Building Centre, 158 New Bond Street, W.1. Until August 26.*

Friday, September 2

TOWN PLANNING INSTITUTE. *At Mardon Hall, Essex. Town and Country Planning Summer School. Until September 9.*

Sunday, September 4

ARCHITECTURAL ASSOCIATION. *Annual Excursion to Holland. Until September 13.*

SANITARY INSPECTORS' ASSOCIATION. *Annual Conference at Edinburgh. Until September 10.*

Friday, September 16

BUILDING EXHIBITION. *At Olympia. To be opened by Sir Philip Sassoon at 4 p.m. Until October 1.*

Thursday, September 22

INSTITUTE OF HOUSING. *At Norwich. Sixth Annual General Meeting and Conference. Until September 24.*

Friday, September 23

BUILDING EXHIBITION. *Olympia. Ball in aid of the Architects' Benevolent Society. 7.30 p.m.*

BALL AT OLYMPIA

During the Building Exhibition a dinner and dance will be held at Olympia, on Friday, September 23, the entire proceeds of which Mr. H. Greville Montgomery, the promoter of the exhibition, has yet again promised to give to the Architects' Benevolent Society.

Dinner will be served from 7.30 to 8.30 p.m. and dancing is from 8.30 p.m. to 1 a.m. Tables may be reserved for parties of six or more if notification is received before Wednesday, September 21. It should be noted that there is now a car park adjoining the Olympia building.

Tickets for dinner and dance, price £1 each (two for 35s., four for 70s.), may be obtained from Mrs. Lanchester, Chairman of the Social Committee, R.I.B.A., Portland Place, W., or at the Building Exhibition from the A.B.S. stand.

Remittance for tickets must accompany order, and it will greatly assist the organisers if applications are sent in early.

COAL UTILISATION COUNCIL

The Fourth National Coal Convention is to be held at Grosvenor House, Park Lane, W.1, on Wednesday and Thursday, October 5 and 6.

G.W.R. SCHEME OF IMPROVEMENTS

The first instalment of the Great Western Railway Company's comprehensive scheme of improvements at Exeter was announced on August 22.

This part of the scheme provides for: The complete remodelling of the station building on the "Down" side; widening of the building on the station approach side by 11 ft. for a distance of 170 ft.; erection of canopy covering for cars, 350 ft. in length, running along the whole front of the building.

The present architectural features of the station will be retained, and the new work will be faced with stone to match. The work will be done in two stages, the first of which will commence in the autumn. The first stage will consist of the remodelling of the building at the London end of the station and erection of the new addition to the building. The second stage provides for new parcels office, cloak rooms and private telephone exchange and station offices, and will be taken in hand during the latter part of next year. Improvements will also be carried out to the station approach and the open space in front of the buildings.

COMPETITION RESULTS

ROYAL NATIONAL EISTEDDFOD

Following is a list of prize-winners in the Architectural Section of the Royal National Eisteddfod of Wales, 1938.

Design for a Scheme comprising Physical Culture Centre and Baths:—

£60, Gordon D. Lloyd Richards, Winchester.

£30, James Ledlie Harrison, Cottingham, E. Yorks.

£20, Idris J. Lewis, Cardiff.

Design for a Group of Twelve Dwellings for Aged People:—

£30, Mary McKenzie, Cardiff.

£20, Kenneth C. Twist, Newton le Willows, Lancs.

KINGSTON BY-PASS HOUSES

In the competition for the design for 20 houses to be erected on the Kingston By-Pass, at New Malden, Surrey, 170 designs were received by the sponsors, Wates, Ltd., Norbury. The winners were announced on Tuesday as follows: First, K. Hart, 21 Cannon Street, Sherwood, Nottingham. Second, D. F. Martin-Smith and John Grey, F/A.R.I.B.A., 5 Bloomsbury Street, W.C.1. Third, George A. Rose, F.R.I.B.A., "Southover," Chelsfield Hill, Chelsfield, Kent. Designs commended: Cyril Sjostrom, A.R.I.B.A. (two schemes), and P. J. Westwood and Sons. The assessors were Messrs. Louis de Soissons, C. H. James and Norman Wates.

The winning design will be reproduced in our next issue.

R.I.B.A.

FINAL EXAMINATION

We regret that the name of Mr. Stephen Edward Tong was omitted from the list, published in our last issue, of the names of the candidates who passed in Part 1 only of the R.I.B.A. Examination.

R.I.B.A. (ARCHIBALD DAWNAY) SCHOLARSHIPS

The works submitted by candidates for the R.I.B.A. (Archibald Dawnay) Scholarships will be on exhibition at the R.I.B.A. from Thursday, September 8, to Saturday, September 17, 1938, inclusive. The exhibition will be open between the hours of 10 a.m. and 7 p.m. (Saturdays 10 a.m. and 2 p.m.)

The scholarships are intended to foster the advanced study of all forms of construction, and are tenable at the schools of architecture recognized for exemption from the examinations of the Royal Institute.

FINAL AND SPECIAL FINAL EXAMINATIONS

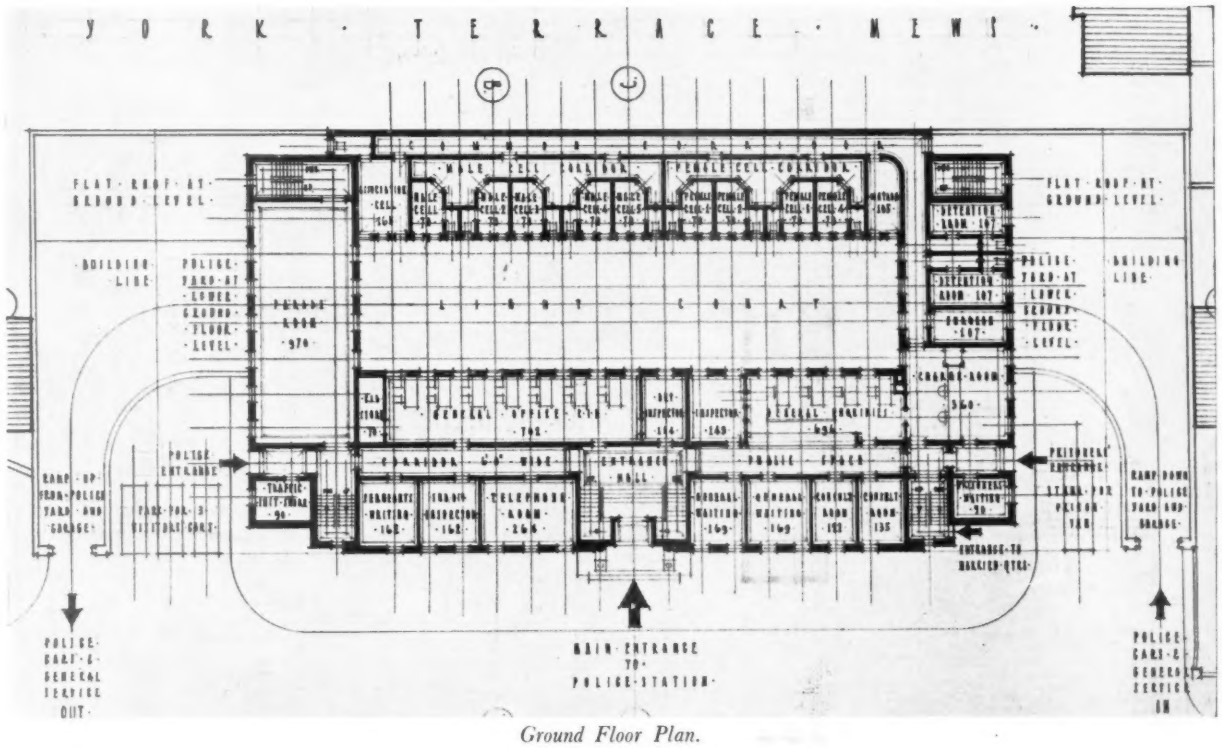
The R.I.B.A. Examination Board in India has arranged to hold the R.I.B.A. Final and Special Final Examinations in Bombay from October 28 to November 5, 1938. The last day for receiving applications, which should be sent to the Hon. Secretary of the R.I.B.A. Examination Board in India, "Gustad Chambers," Sir Pherozeshaw Mehta Road, Fort, Bombay, is September 28.

A.R.P.

The A.A.S.T.A. writes: "With reference to our report on Air Raid Protection, published in THE ARCHITECTS' JOURNAL for July 7. I should be glad if you would be good enough to insert the following correction in the forthcoming issue of the JOURNAL: On page 24, incendiary bombs are described as weighing from 22 lb. to 60 lb. It should read 2 lb. to 60 lb."

THE MARYLEBONE COMPETITION

PROPOSED NEW POLICE STATION



Ground Floor Plan.

WINNING DESIGN : BY VINE AND VINE

RESULT

MESSRS. G. Mackenzie Trench, O.B.E., F.R.I.B.A., and S. Rowland Pierce, A.R.I.B.A., assessors of the competition for a new police station, Marylebone Road, London, have made their award as follows :—

Design placed first (£300) : Messrs. Vine and Vine, of Wood Green, N. Design placed second (£200) : Mr. L. G. Farquhar, of Sir John Burnet, Tait and Lorne, of Bedford Square, W.C. Design placed third (£100) : Messrs. H. Farquharson and D. H. McMorran, of North Audley Street,.W.1.

Designs commended : Mr. F. Gibberd, of Sloane Square, W. ; Messrs. O'Rorke and Pickmere, of Golden Square, W.1 ; and Messrs. Lyons, Israel and Elsom, of Paul's Bakehouse Court, E.C.

All the designs are on exhibition in the Royal Horticultural Society's New Hall, Greycoat Street, S.W.1, until Saturday, August 27, between the hours of 10 a.m. and 8 p.m., except on the closing day, when the exhibition will close at 6 p.m.

THE ASSESSORS' REPORT

"Thirty-eight sets of drawings were received. Though there were a few minor transgressions of the conditions, none of these was such as to justify disqualification. The designs submitted were generally of a high standard, and indicated that intensive consideration had been given by competitors to the many problems presented.

"The conditions were onerous as regards the accommodation to be provided in relation to the restrictions imposed by considerations of building lines, heights and angles. In particular the provision of accommodation for 16-20 cars, coupled with the necessity for reducing the noise therefrom to a minimum, rendered the problem extremely difficult, and the placing of the garage largely determined the lay-out of the building on the site.

"In placing design No. 27 (Messrs. Vine and Vine) first, we would make the following detailed comments :—

(*a*) The scheme is planned on a straightforward basis, with good grouping of the several units of police activity.

(*b*) The garage for 17 cars is well-arranged, all cars being readily accessible at one time. As the garage is entirely covered, and faces south, the cars should cause the least amount of disturbance to occupants of adjoining properties.

(*c*) The large internal lighting court, which extends to the second floor only, results in a plan with good natural lighting to all rooms, while it provides ample ventilation down to basement level.

(*d*) The arrangements for air raid precautions are comprehensive and efficient.

(*e*) Attention is drawn to the use of the public space of the general office as a circulating corridor. This may be undesirable in certain circumstances.

(*f*) The telephone room might with advantage be nearer the general office, and would be better removed from street traffic noises.

(*g*) The long access corridors to the cells require reconsideration.

(*h*) The service to the constables' canteen is capable of improvement, as also is the position of the inspectors' canteen.

(*j*) The front elevation is suitable having regard to the character of the building and of Marylebone Road, while the rear and end elevations are equally appropriate.

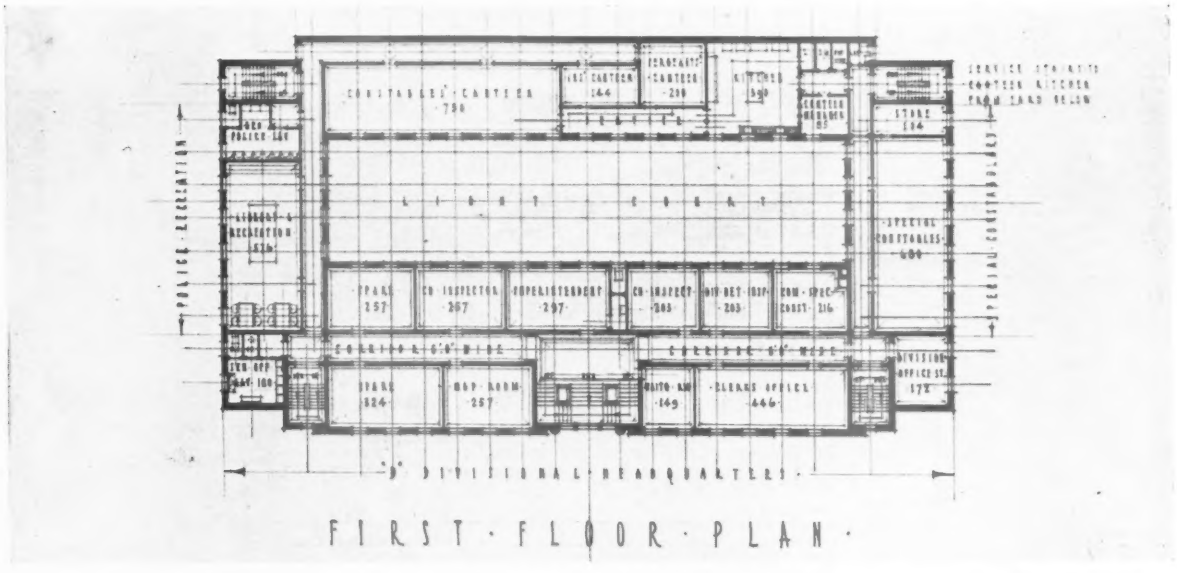
(*k*) With reasonable regard to economy, the sum stated by the author (£78,656) should prove adequate for the erection of the proposed building.

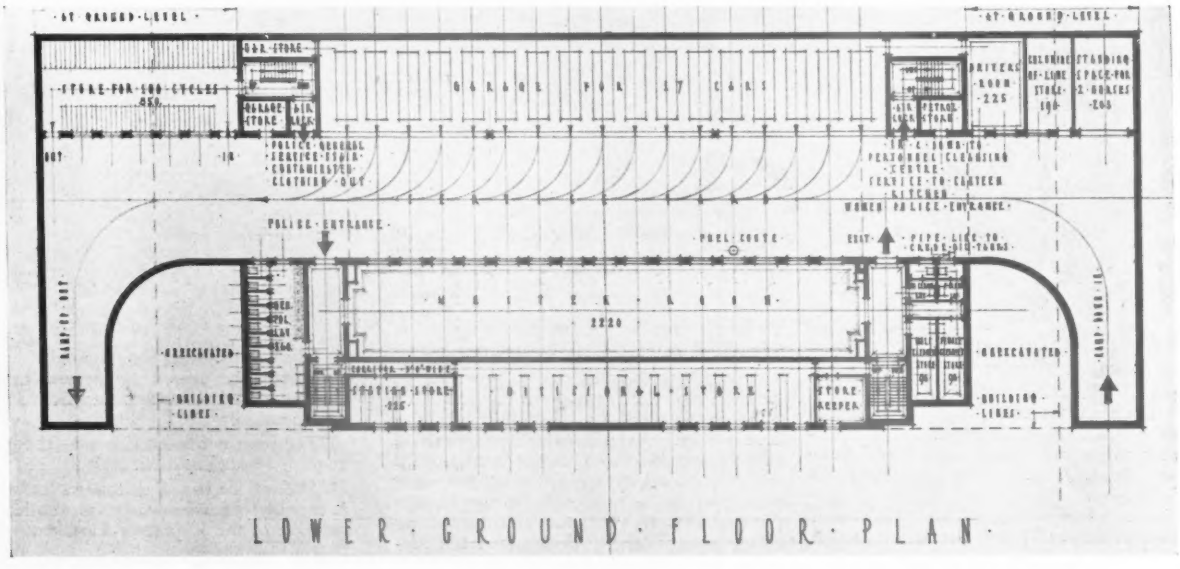
"Design No. 28 (Mr. L. G. Farquhar, of Sir John Burnet, Tait and Lorne) shows an interesting plan, but it is not so satisfactory as that placed first ; in addition, it is greatly in excess of the latter in both cubic content and cost. The elevation is dignified and suitable.

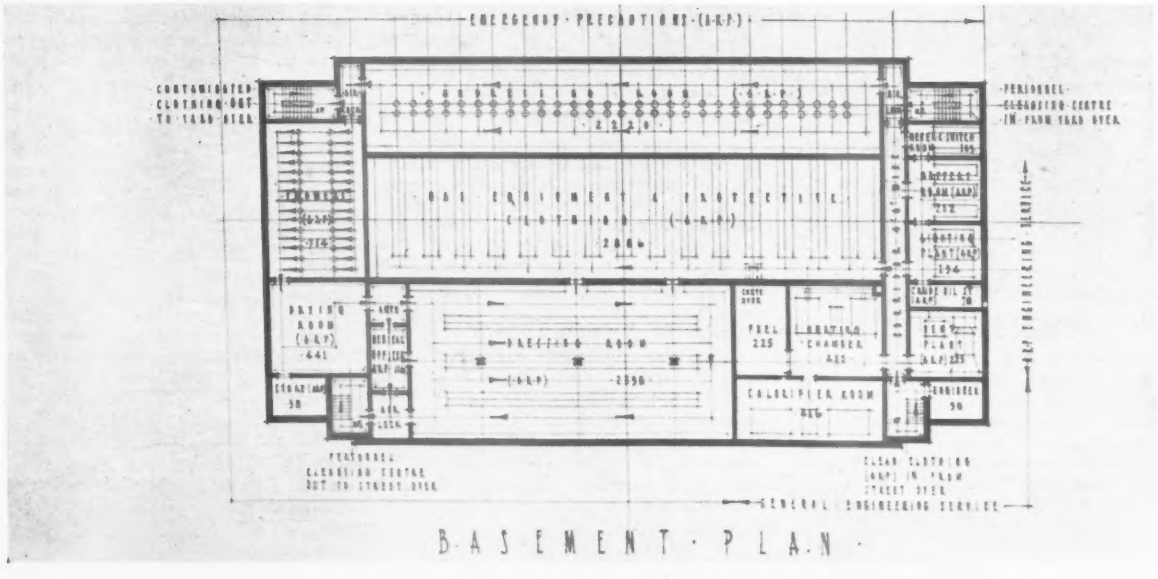
"Design No. 29 (Messrs. Farquharson and McMorran) is cast in a more severely academic mould than either Nos. 27 or 28, which, having regard to the position of the site, is permissible. It is, however, not so compact or workable a plan as No. 27, nor does the design build up as a mass from all points of view."

Extracts from the reports of the authors of the premiated designs are printed on page 315.

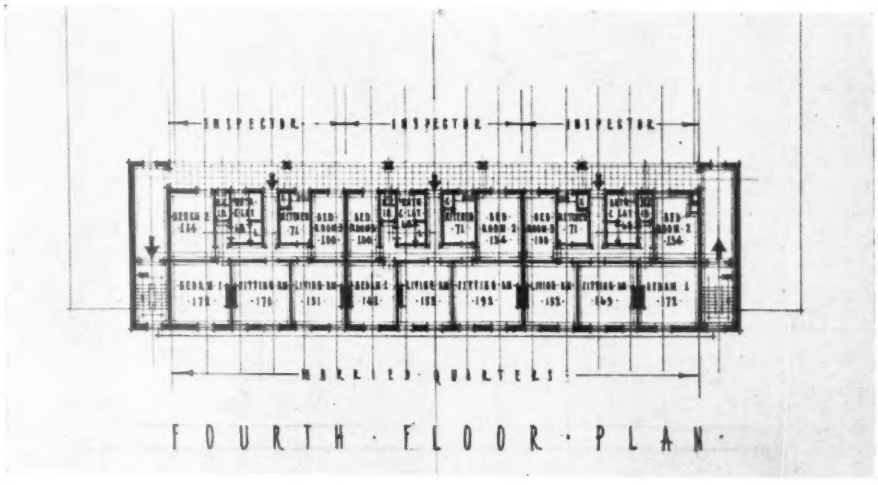
COMPETITION FOR PROPOSED POLICE



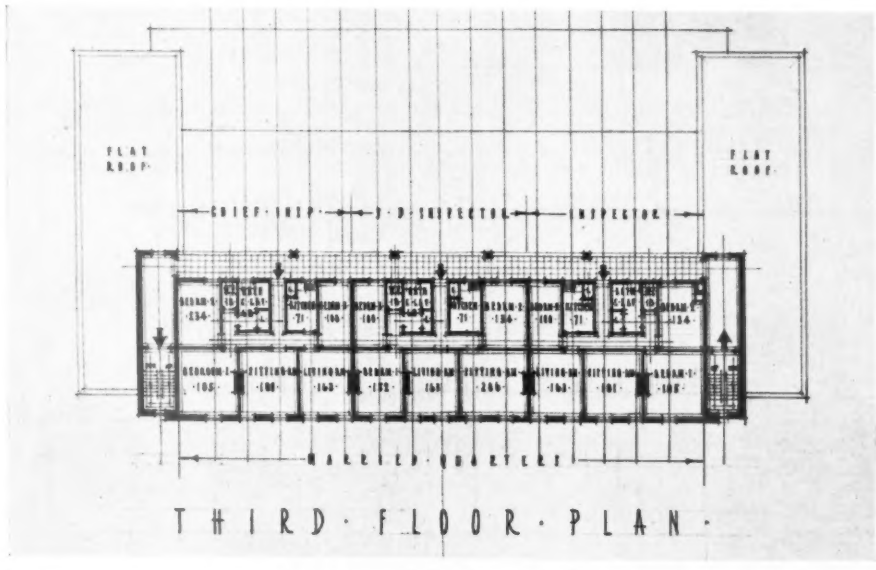




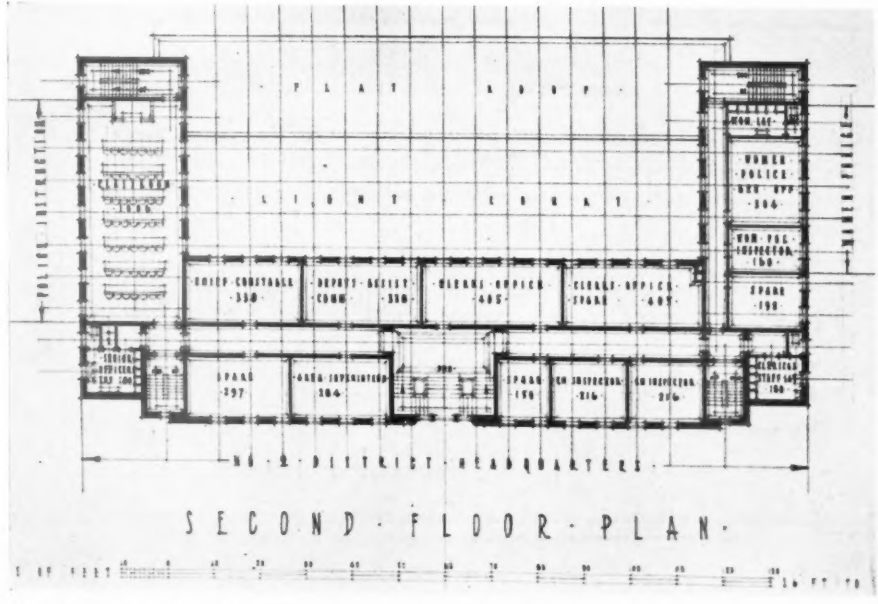
STATION, MARYLEBONE



FOURTH FLOOR PLAN



THIRD FLOOR PLAN



SECOND FLOOR PLAN

WINNING DESIGN: BY VINE AND VINE

REPORTS

Following are extracts from the reports of the authors of the premiated designs:

WINNING DESIGN

CONSTRUCTION AND FINISHES—Building generally, steel frame with solid R.C. floors and roofs (5 ins. minimum thickness). The R.C. slab over the gas equipment store in the basement would have minimum thickness of 15 ins. All elevations: silver-grey hand-made sand-faced bricks finished with a flush joint rubbed with canvas. Elevation to Marylebone Road will have a plinth of Portland stone with shafts flanking the main entrance, and Portland stone copings and sills. The main entrance doorway and steps will be in Bluehill grey granite, that to the steps axed finished, elsewhere eggshell polished. Windows, metal, that to main staircase with simple acid embossed decoration.

COMPUTATION OF SITE COVER—50 per cent. site cover allowable: 10,131 sq. ft. Area of site covered by building: 10,131 sq. ft.

COST—Total cube: 676,520 cu. ft. Total cost £78,656. Cost per ft. cube varied between 2s. and 2s. 5d.

DESIGN PLACED SECOND

CONSTRUCTION AND FINISHES—The buildings throughout would be of reinforced concrete frame construction in order to comply with Emergency Precautions E.I. The foundations would be constructed of Portland cement concrete. Walls: façade to Marylebone Road and east and west elevations of main block would be in Portland stone with Fletton brick backings, except where reinforced concrete for emergency precautions. North façade and back wings in sand-coloured bricks with reconstructed stone facings. External walls generally would be 13½ ins. thick.

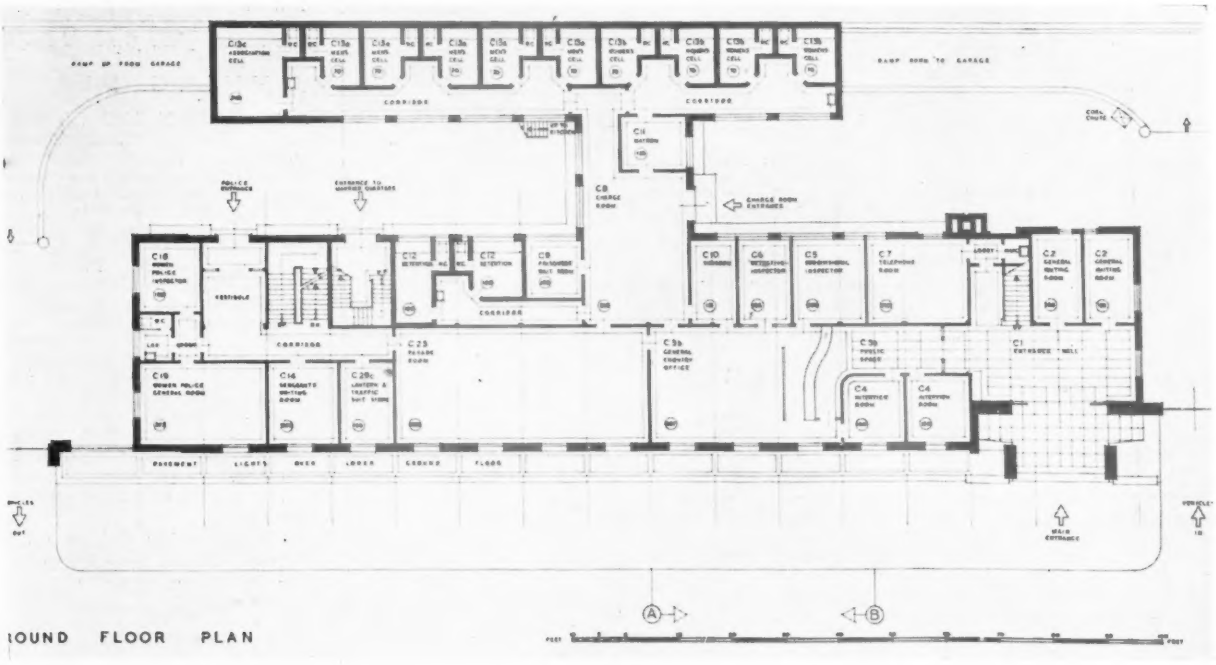
COST—801,750 cu. ft. at 2s. 5½d. per ft. cube = £98,550.

DESIGN PLACED THIRD

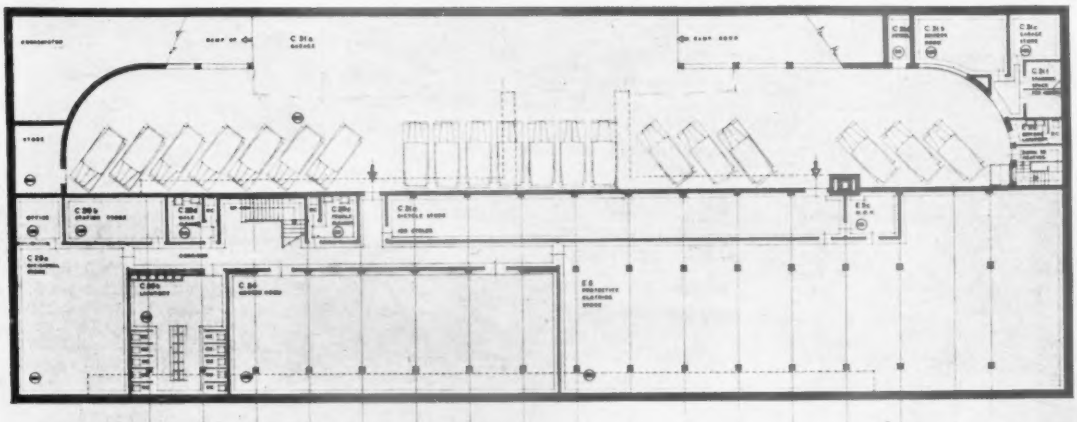
CONSTRUCTION AND FINISHES—Portland stone facings to main elevations, brick to others. Roof would be covered with cast lead. R.C. frame with solid floors and roof slabs.

COST—602,150 cu. ft. at 2s. 6d. per ft. cube = £77,270.

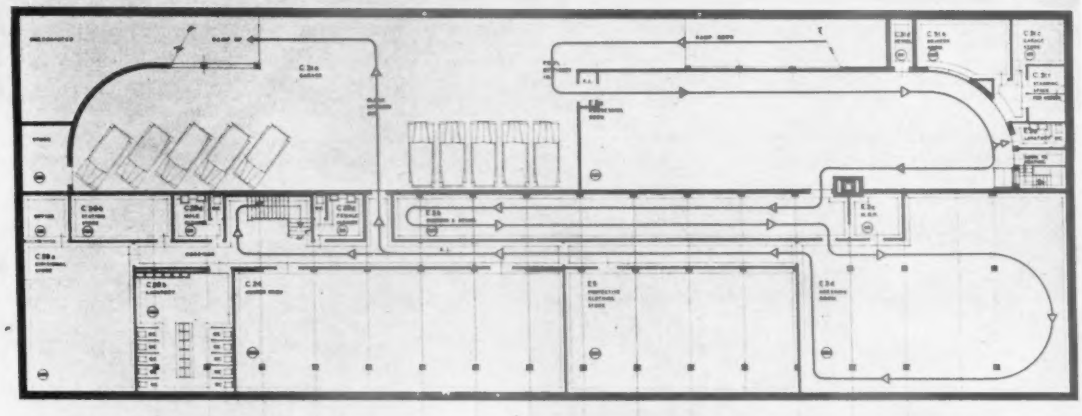
COMPETITION FOR PROPOSED POLICE



OUND FLOOR PLAN



LOWER GROUND FLOOR PLAN

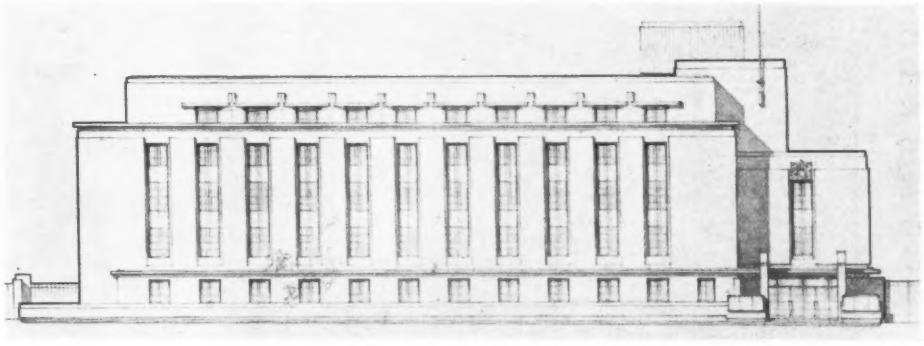


LOWER GROUND FLOOR PLAN SHOWING REARRANGEMENT

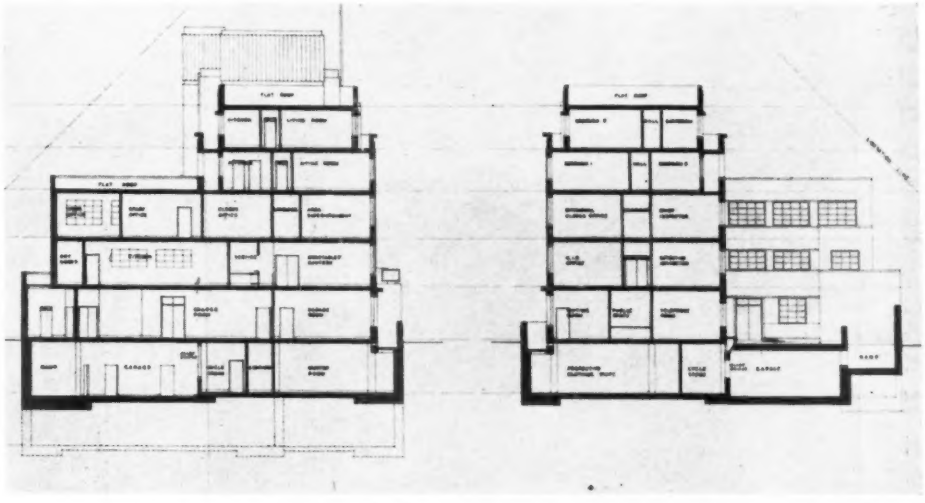
DESIGN PLACED SECOND: BY L. G. FARQUHAR, OF SIR JOHN BURNET, TAIT AND LORNE

STATION, MARYLEBONE: PREMIATED DESIGNS

DESIGN PLACED SECOND: BY L. G. FARQUHAR, OF SIR JOHN BURNET, TAIT AND LORNE

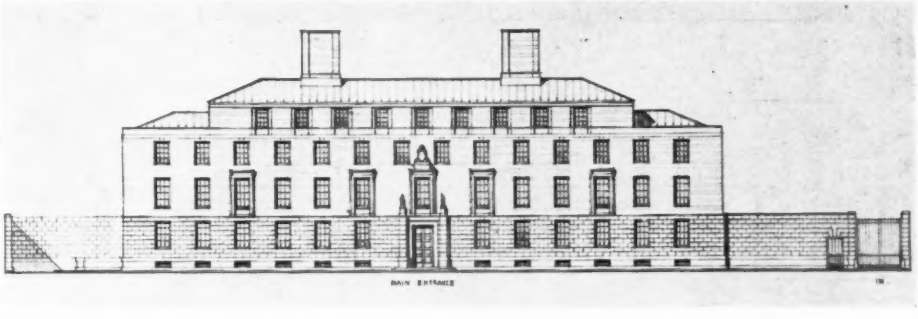


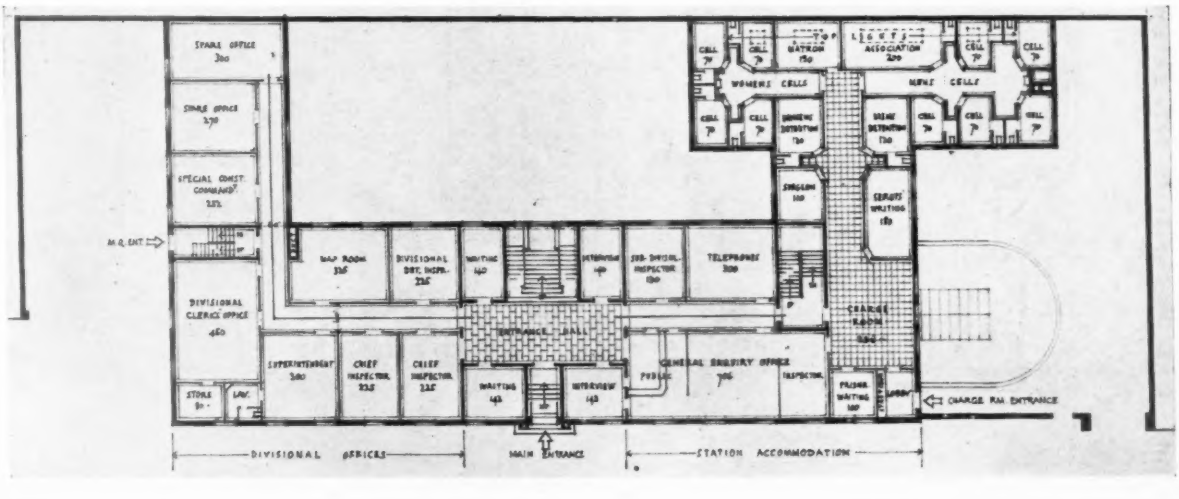
Design placed second. On the facing page are reproduced plans of the ground floor and the lower ground floor showing accommodation and the alternative arrangement for air raid precautions. Right, main elevation and sections.



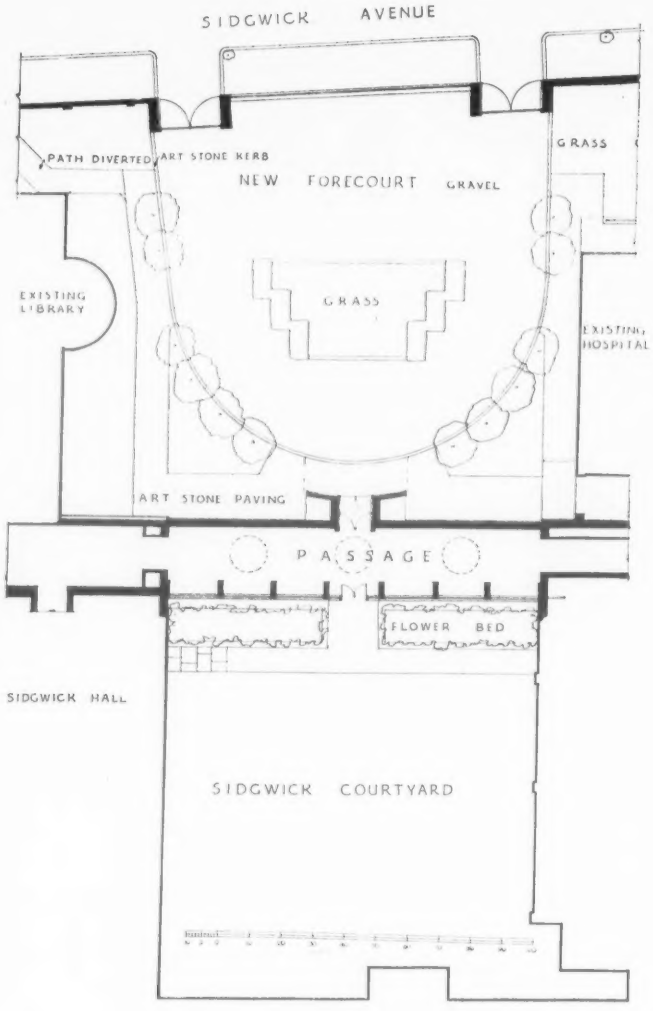
DESIGN PLACED THIRD: BY H. FARQUHARSON AND D. H. McMORRAN

Right, main elevation; below, ground floor plan.





NEW BUILDINGS AT NEWNHAM COLLEGE, CAMBRIDGE



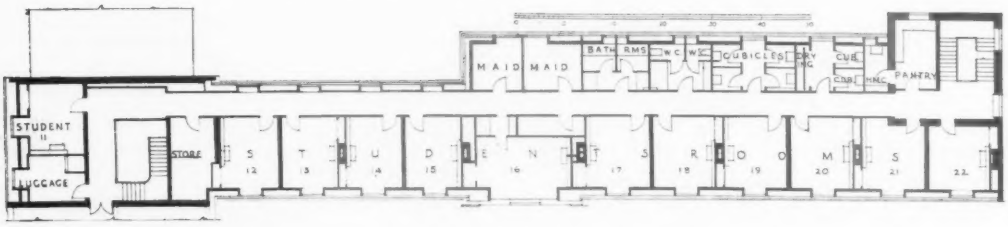
PLAN OF THE COURTYARD

GENERAL— *The old buildings being out of date, the policy has been to convert certain existing rooms in the old halls into sanitary apartments. This has reduced the number of rooms available for students and Fellows, and necessitated building new blocks to replace the losses and provide for slightly increased numbers. The new buildings have had to keep ahead of the reconstruction, so that there was no shortage of rooms at any stage.*

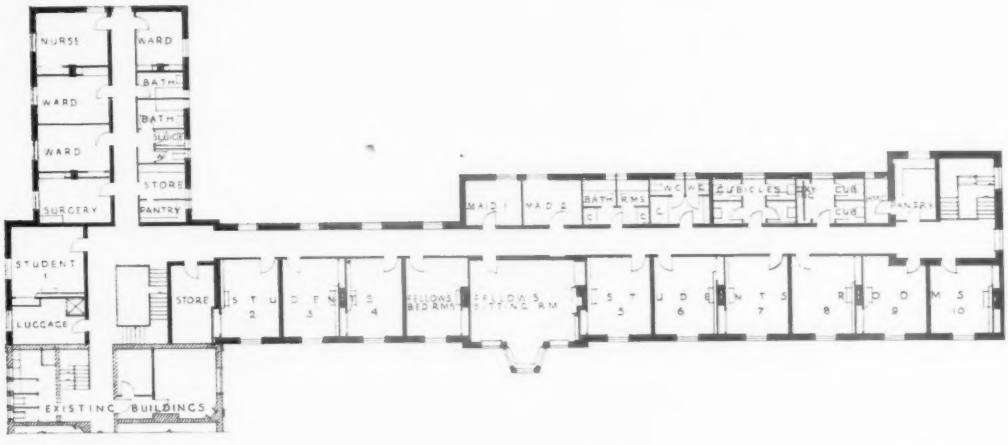
Above, the entrance to the passage-way. Right, the main courtyard entry. The photograph on the facing page shows a general view of the new buildings.

DESIGNED BY SCOTT, SHEPHERD AND BREAKWELL

NEW BUILDINGS AT NEWNHAM COLLEGE, CAMBRIDGE:



TOP FLOOR PLAN



FIRST FLOOR PLAN

SECTIONS

GROUND FLOOR PLAN

PLAN — *The site plan consists of a courtyard opening off the main Newnham garden, and the completed block forms the north side of this court. The rooms in the north block are planned to face south into the court. The main circulation for the college will run round this court in the ground floor corridor, and a paved way across the court to the gable entrance of the north block will provide a short cut for open-air use. The north block is an extension of the existing adjoining halls and has no main entrance of its own from the road. A new main entrance for Sidgwick Hall has been formed, opening into the new main circulating corridor which now by-passes Sidgwick Hall.*

Left, the quadrangle front.

BY SCOTT, SHEPHERD AND BREAKWELL

CONSTRUCTION AND EXTERNAL FINISHES—*The external walls are of 2 in. brick. The second floor rooms above parapet level are in a timber mansard roof, hung with plain tiles. The central portion of the roof is of flat timber construction covered with three layers of bituminous roofing on 1½ in. cork for insulation and topped with macadam for protection of the surface. The first and second floors are constructed of hollow tiles, the stairs are reinforced concrete and the ground floor waterproof concrete. The partition walls are of 3 in. pumice block or 9 in. brick, and the lavatory partitions of 2 in. tiles. Externally a silver-grey brick with red dressings has been adopted to lighten the effect in the courtyard, and to give enrichment by colour pattern to stand up to the elaborate carving and mouldings of the old buildings. The projecting bay in the gable of the north block and the new main entrance to Sidgwick corridor are faced with Portland stone. Artificial stone has also been used for certain external pavings and parapets. The windows are metal casements fixed to wooden frames.*

Above, a detail of the entrance from the quadrangle.

NEW BUILDINGS AT NEWNHAM COLLEGE, CAMBRIDGE

DESIGNED BY SCOTT, SHEPHERD AND BREAKWELL

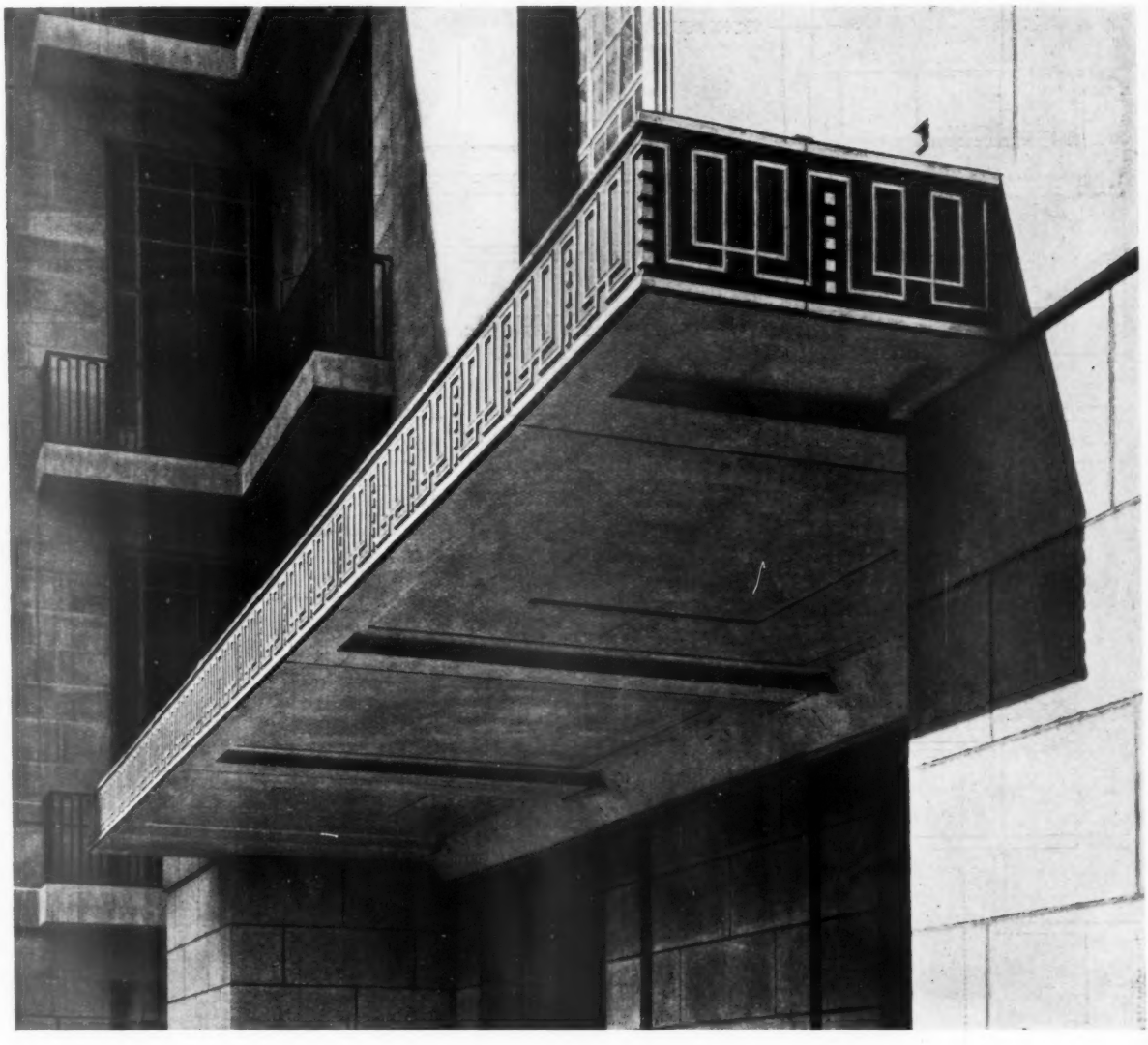
EQUIPMENT AND SERVICES—*Students' and Fellows' rooms have been planned with built-in cupboards and bookshelves on either side of the fireplace, and all rooms have gas fires, with the exception of the Fellows' sitting-rooms, which have coal fires and radiators. The lecture and coaching rooms, maids' rooms, corridors and stairs are heated by radiators. The first floor over the lecture rooms and hall have insulated floor joists for quietness, and jambs of all doors are fitted with rubber strip. Ceilings of the lecture rooms are lined with acoustic felt.*

Above, left, the entrance hall; left, a corridor; top, a staircase landing.

The general contractors were Rattee and Kent; for list of subcontractors see page 338.

WORKING DETAILS : 677

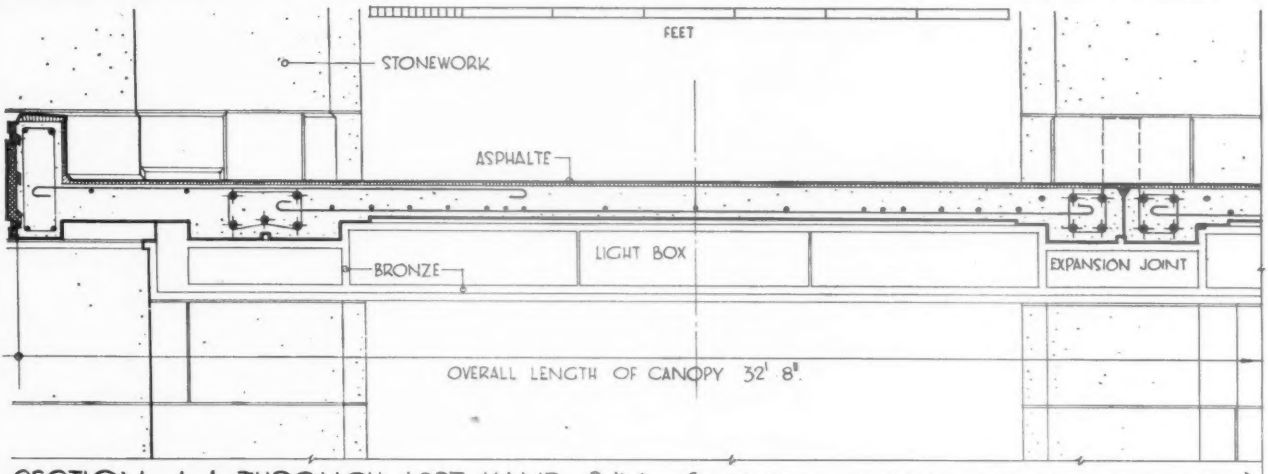
ENTRANCE CANOPY • LIBRARY TOWER, UNIVERSITY OF LONDON • CHARLES HOLDEN



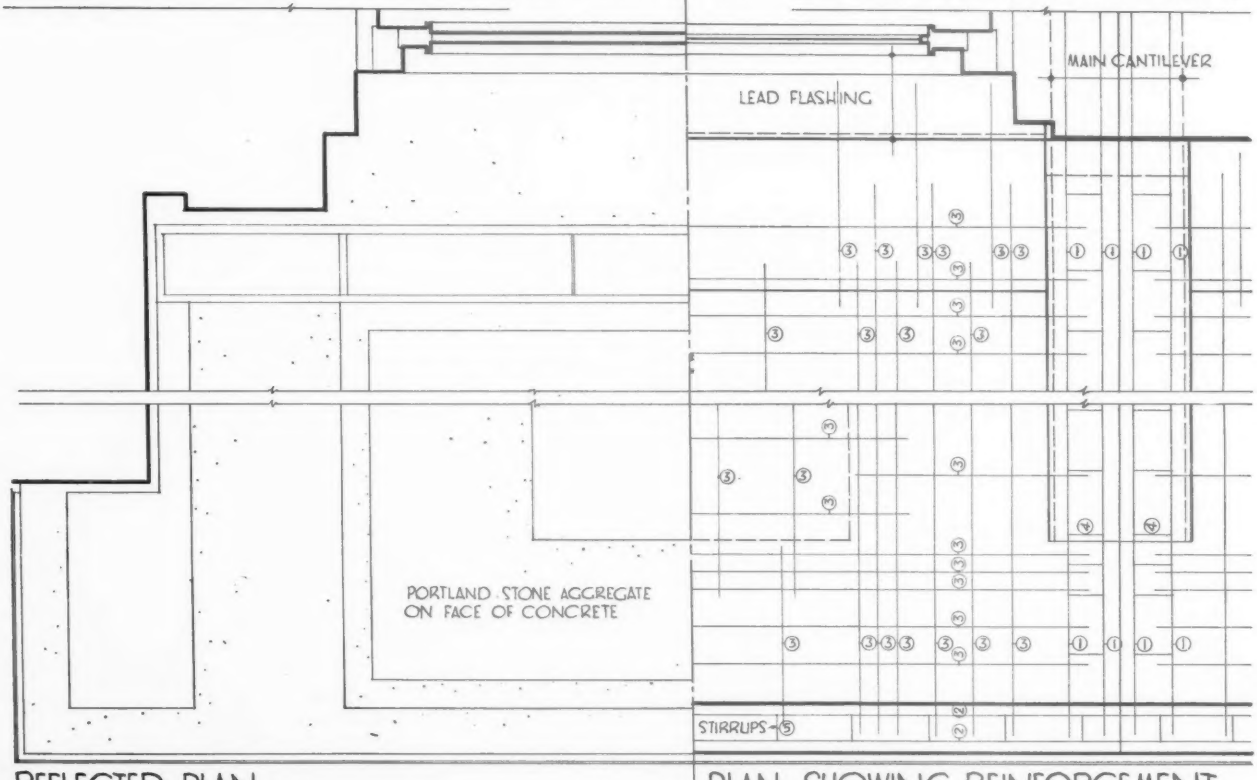
The canopy is over the main entrance to the library tower adjoining the Senate House. It is constructed in reinforced concrete and cantilevered from the main wall face, there being three bays between the cantilever members in the length of the canopy. The underside of the canopy is finished with a Portland stone aggregate on the face of the concrete. The fascia is in cast lead, while the top of the canopy is asphalte covered, laid to fall inwards to a gutter.
Details are shown overleaf.

WORKING DETAILS : 678

ENTRANCE CANOPY • LIBRARY TOWER, UNIVERSITY OF LONDON • CHARLES HOLDEN

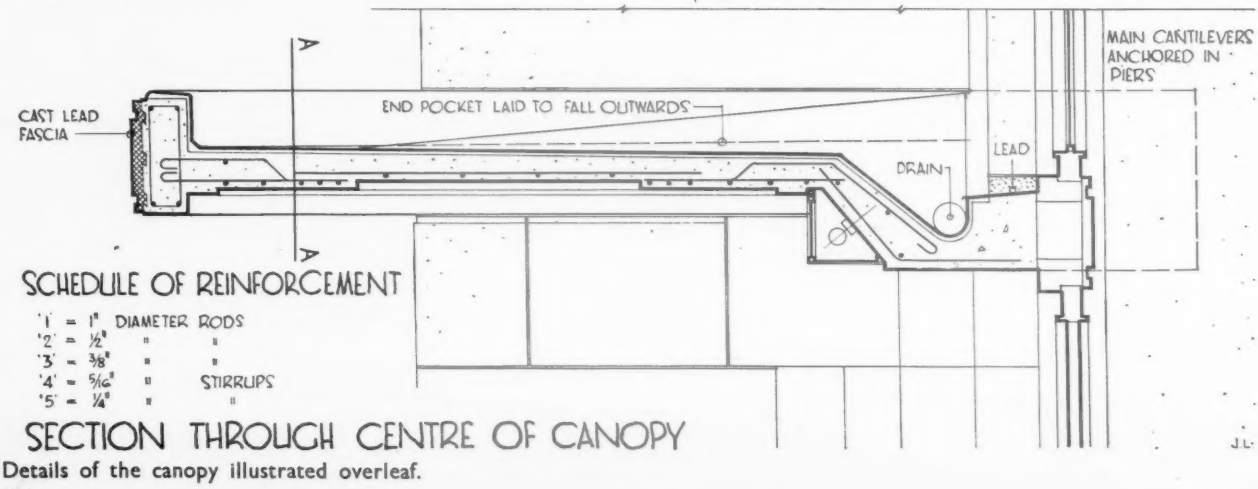


SECTION A-A THROUGH LEFT HAND BAY (3 BAYS IN COMPLETE LENGTH OF CANOPY)



REFLECTED PLAN

PLAN SHOWING REINFORCEMENT



SCHEDULE OF REINFORCEMENT

'1' = 1" DIAMETER RODS
'2' = ½" " "
'3' = ⅜" " "
'4' = 5/16" " STIRRUPS
'5' = ¼" " "

SECTION THROUGH CENTRE OF CANOPY

J.L.

Details of the canopy illustrated overleaf.

The Architects' Journal Library of Planned Information

INFORMATION SHEET

SUPPLEMENT

SHEETS IN THIS ISSUE

655 School Cloakrooms (Girls)

656 Ventilation of Factories and Workshops—II

In order that readers may preserve their Information Sheets, specially designed loose-leaf binders are available similar to those here illustrated. The covers are of stiff board bound in "Rexine" with patent binding clip. Price 2s. 6d. each post free.

Sheets issued since Index :

601 : Sanitary Equipment
602 : Enamel Paints
603 : Hot Water Boilers—III
604 : Gas Cookers
605 : Insulation and Protection of Buildings
606 : Heating Equipment
607 : The Equipment of Buildings
608 : Water Heating
609 : Fireplaces
610 : Weatherings—I
611 : Fire Protection and Insulation
612 : Glass Masonry
613 : Roofing
614 : Central Heating
615 : Heating : Open Fires
616 : External Renderings
617 : Kitchen Equipment
618 : Roof and Pavement Lights
619 : Glass Walls, Windows, Screens, and Partitions
620 : Weatherings—II
621 : Sanitary Equipment
622 : The Insulation of Boiler Bases
623 : Brickwork
624 : Metal Trim
625 : Kitchen Equipment
626 : Weatherings—III
627 : Sound Insulation
628 : Fireclay Sinks
629 : Plumbing
630 : Central Heating
631 : Kitchen Equipment
632 : Doors and Door Gear
633 : Sanitary Equipment
634 : Weatherings—IV
635 : Kitchen Equipment
636 : Doors and Door Gear
637 : Electrical Equipment, Lighting
638 : Elementary Schools—VII
639 : Electrical Equipment, Lighting
640 : Roofing
641 : Sliding Gear
642 : Glazing
643 : Glazing
644 : Elementary Schools—VIII
645 : Metal Curtain Rails
646 : Plumbing
647 : Veneers
648 : U.S.A. Plumbing—V
649 : U.S.A. Plumbing—VI
650 : Ventilation of Factories and Workshops—I
651 : School Cloakrooms (Boys)
652 : U.S.A. Plumbing—VII
653 : Plumbing
654 : U.S.A. Plumbing—VIII

657.

THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

CHART SHOWING SIZES REQUIRED FOR GIRLS' CLOAKROOMS.

Where window or door openings prevent the fixing of pegs, find the feet run of wall which cannot be used & deduct the equivalent number of pegs shown in the 2nd line of the chart. If a coat and hat stand is reduced in length, deduct double the number of pegs per foot run. For cul de sac cloakrooms deduct 10 pegs for each coat & hat stand.*

Length of cloakroom in feet, measured in the direction of the hat stands.

CUL DE SAC TYPE

Hat and coat stand. Cul de sac. All gangways 5'0" wide.

BASIC TYPE FOR CHART.

Hat and coat stands. 5'0" gangways. Pegs 12" centre to centre.

* DEDUCT FOR CUL DE SAC

NUMBER OF GIRLS OR PEGS.

FEET	1'0"	2'0"	3'0"	4'0"	5'0"	6'0"	7'0"	8'0"	9'0"	10'0"	11'0"	12'0"	13'0"	14'0"	15'0"	16'0"	17'0"	18'0"	19'0"	20'0"	21'0"	22'0"	23'0"	24'0"	25'0"	26'0"	27'0"	28'0"	29'0"	30'0"	31'0"	32'0"	33'0"	34'0"	35'0"	36'0"	37'0"	38'0"	39'0"	40'0"	FEET
NUMBER OF PEGS	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	27.	28.	29.	30.	31.	32.	33.	34.	35.	36.	37.	38.	39.	40.	NUMBER OF PEGS.
1'0"																																									1'0"
2'0"																																									2'0"
3'0"																																									3'0"
4'0"																																									4'0"
5'0"	12.	14.	16.	18.	20.	22.	24.	26.	28.	30.	32.	34.	36.	38.	40.	42.	44.	46.	48.	50.	52.	54.	56.	58.	60.	62.	64.	66.	68.	70.	72.	74.	76.	78	80.	82.	84.	86.	88.	90	5'0"
6'0"	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	6'0"
7'0"	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	7'0"
8'0"	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	8'0"
9'0"	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	9'0"
10'0"	24.	28.	32.	36.	40.	44.	48.	52.	56.	60	64.	68.	72.	76.	80.	84.	88.	92.	96.	100	104.	108	112	116.	120.	124.	128.	132.	136.	140.	144.	148.	152.	156.	160.	164.	168.	172.	176.	180.	10'0"
11'0"	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	11'0"
12'0"	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	12'0"
13'0"	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	13'0"
14'0"	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	14'0"
15'0"	36.	42.	48.	54.	60	66.	72.	78.	84.	90.	96.	102.	108.	114.	120.	126.	132.	138.	144.	150.	156.	162.	168.	174.	180.	186.	192.	198.	204.	210.	216.	222.	228.	234.	240.	246.	252.	258.	264.	270.	15'0"
16'0"	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	16'0"
17'0"	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	17'0"
18'0"	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	18'0"
19'0"	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	19'0"
20'0"	48.	56.	64.	72.	80.	88.	96.	104.	112.	120.	128.	136.	144.	152.	160.	168.	176.	184.	192.	200.	208.	216.	224.	232.	240.	248.	256.	264.	272.	280.	288.	296.	304.	312.	320.	328.	336.	344.	352.	360.	20'0"
21'0"	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	21'0"
22'0"	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	22'0"
23'0"	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	23'0"
24'0"	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	24'0"
25'0"	60.	70.	80.	90.	100	110.	120.	130.	140.	150.	160.	170.	180.	190.	200.	210.	220.	230.	240.	250.	260.	270.	280.	290.	300.	310.	320.	330.	340.	350.	360.	370.	380.	390.	400.	410.	420.	430.	440.	450.	25'0"
26'0"	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	26'0"
27'0"	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	27'0"
28'0"	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	28'0"
29'0"	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	29'0"
30'0"	72.	84.	96.	108.	120.	132.	144.	156.	168.	180.	192.	204.	216.	228.	240.	252.	264.	276.	288.	300.	312.	324.	336.	348.	360.	372.	384.	396.	408.	420.	432.	444.	456.	468.	480.	492.	504.	516.	528.	540.	30'0"
31'0"	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	31'0"
32'0"	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	32'0"
33'0"	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	33'0"
34'0"	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	34'0"
35'0"	84.	98.	112.	126.	140.	154.	168.	182.	196.	210.	224.	238.	252.	266.	280.	294.	308.	322.	336.	350.	364.	378.	392.	406.	420.	434.	448.	462.	476.	490.	504.	518.	532.	546.	560.	574.	588.	602.	616.	630.	35'0"
FEET.	1'0"	2'0"	3'0"	4'0"	5'0"	6'0"	7'0"	8'0"	9'0"	10'0"	11'0"	12'0"	13'0"	14'0"	15'0"	16'0"	17'0"	18'0"	19'0"	20'0"	21'0"	22'0"	23'0"	24'0"	25'0"	26'0"	27'0"	28'0"	29'0"	30'0"	31'0"	32'0"	33'0"	34'0"	35'0"	36'0"	37'0"	38'0"	39'0"	40'0"	FEET.

One hat stand. Two hat stands. Three hat stands. Four hat stands. Five hat stands.

One hat stand for cloakrooms between 10'& 15' wide.

Two hat stands for cloakrooms between 15'& 20' wide.

Three hat stands for cloakrooms between 20'& 25' wide.

Four hat stands for cloakrooms between 25'& 30' wide.

Five hat stands for cloakrooms between 30'& 35' wide.

Width of cloakroom allowing 5'0" wide gangways between stands.

Compiled by R.S. Wilshere, F.R.I.B.A., P.A.S.I.

INFORMATION SHEET: CLOAKROOMS IN ELEMENTARY AND SECONDARY GIRLS SCHOOLS: No. 2.

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

THE ARCHITECTS' JOURNAL
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INFORMATION SHEET

• 655 •

SCHOOL CLOAKROOMS (GIRLS)

General :

This is the second of two charts designed by R. S. Wilshere, F.R.I.B.A., P.A.S.I., for determining the sizes of cloakrooms to contain a given number of hat and coat pegs.

Under the new regulations issued by the Board of Education (Elementary School Buildings, 1936), the spacing of pegs for girls' cloakrooms is the same now for both elementary and secondary schools, i.e. 12 ins. centre to centre, and the gangways all round and between the hat and coat stands are 5 ft. wide.

Thus, in rooms under 10 ft. in width and 10 ft. in length, pegs can be placed only on the walls, no stands being possible. Every 12 ins. increase in length allows the addition of two pegs on the wall, and every 5 ft. increase in width allows the addition of another stand.

Cloakrooms may be of three types :—

Dead-end type, which allows 5 ft. gangways between each stand, stands running from wall to wall. This is the basic type on which the figures on the chart have been calculated.

Island hat and coat stand, which allows 5 ft. gangways all round the stands.

Cul-de-sac type, which allows 5 ft. gangways between each stand, the ends of the stands abutting one wall of the room.

For the island type, deduct 20 pegs from the figures shown on the chart. For the cul-de-sac type, deduct 10 pegs from the figures shown on the chart.

It should be noted that on the previous Sheet of this series, Cloakrooms in Elementary and Secondary Boys' Schools, No. 1, it was necessary to *add* to the numbers on the chart for the cul-de-sac type, whereas on this Sheet, deduction is necessary.

The width of all openings in the wall surface must be measured, and the number of pegs equivalent to the width of the openings deducted from the number of pegs shown on the chart.

Method of Using Chart :

The chart can be used for the following purposes :—

(*a*) To find the area of the room for a given number of girls or pegs, if neither the length nor width have been decided.

(*b*) To find the area of the room if either one of the two dimensions has been decided.

(*c*) To find the number of pegs obtainable in a room of fixed area.

In (*a*) above, the required number of girls or pegs is found in one of the lines of figures running across the chart, and by reading vertically and horizontally from the figure to the margins of the chart, the length and width of the room are found : e.g. a cloakroom is required for 120 girls. Find 120 in one of the horizontal rows of figures, say the second row, read up to 25 ft., which is the length, and across to 10 ft., which is the width. Since coat or hat stands work in multiples of 5 ft. widths, this example will require one such stand.

Or—find 112 in the fourth horizontal row of figures, add 8 pegs, totalling 120, which will give a length of 9 ft. and a width of 24 ft. with three stands. By this method a cloakroom of convenient shape to hold the required number of pegs is easily ascertained.

In (*b*) the known dimension is found in either the top line or side column of sizes, according as to whether the length or width of the room is known, and then reading either vertically or horizontally from the required number of pegs, the other dimension of the room is found ; e.g. a cloakroom for 120 girls or pegs with a width of 15 ft. Find 15 ft. in the left-hand column of figures, read across to 120 pegs, then reading vertically, we find that 15 ft. is the required length of cloakroom, with two stands.

Or—a cloakroom for 200 girls with a length of 27 ft. Find 27 ft. in the bottom line of figures, read up to the nearest figure to 200, i.e. 192, and add 8 pegs ; this gives a width of 19 ft. with two stands.

In (*c*) the two dimensions, length and width, are found in the corresponding lines of figures, and reading down and across the number of pegs available is found ; e.g. a cloakroom 23 ft. long and 17 ft. wide. Find 23 ft. in the top or bottom row of dimensions, and 17 ft. in the side column, read down from 23 ft. and across from 17 ft., and the intersection gives 168 + 4 = 172, with two hat stands.

Previous Sheets :

The first Sheet in this series is No. 651.

G83

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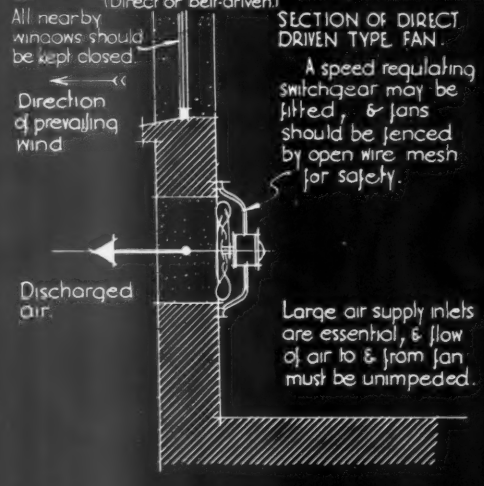
THE VENTILATION OF BUILDINGS BY MEANS OF EXTRACTION FANS :

(a.) Propeller or disc fans (When installed near working level may be most effective.)

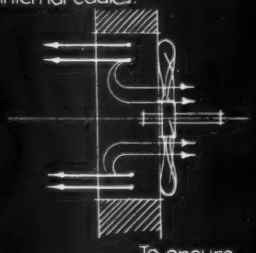
(Direct or belt-driven.)



SECTION OF DIRECT DRIVEN TYPE FAN.

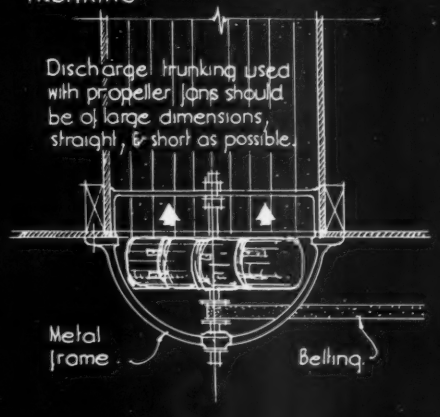
A speed regulating switchgear may be fitted, & fans should be fenced by open wire mesh for safety.

UNDUE RESISTANCE on the discharge side of the fan may seriously reduce the discharge by the creation of internal eddies.



To ensure correct air feed from the room, blades should be close to the wall opening, with lips not materially inset.

SECTION OF AN OVERHEAD BELT DRIVEN FAN DISCHARGING INTO A WOODEN TRUNKING

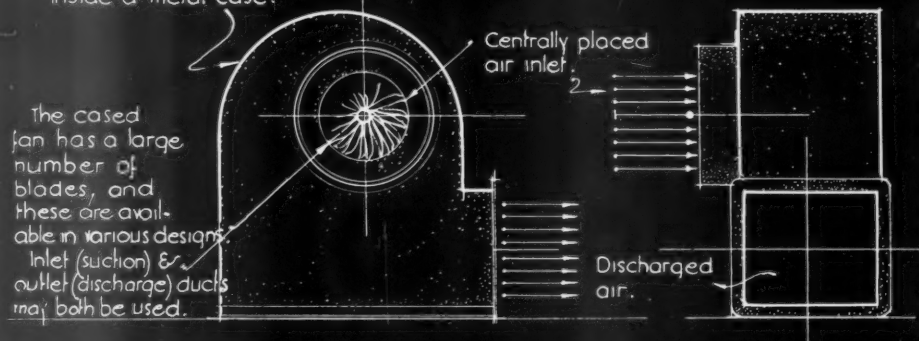


Discharge trunking used with propeller fans should be of large dimensions, straight, & short as possible.

(b.) Pressure or centrifugal fans (Used with plenum or extract duct systems of ventilation, see future Information Sheets of this series.)

(Direct or Belt-driven.)

Pressure fans usually rotate inside a metal case.



The pressure of the discharged air exceeds that of the air which enters the fan. This excess, or static pressure, is the means whereby the total resistance to the flow of air in the system (ducting, etc.) is overcome. It is indicated by water gauge.

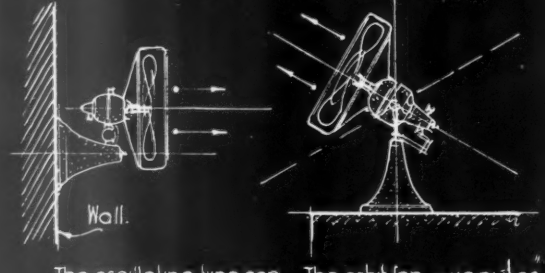
Air flows through fan in an approximately radial direction, & is discharged tangentially.

SIDE & FRONT ELEVATIONS OF A TYPICAL CENTRIFUGAL FAN.

CIRCULATING FANS. (for improving local conditions in parts of rooms where normal methods of ventilation fail to provide adequate air movement)

1. PORTABLE FANS.

(a.) Oscillating type. (b.) Orbit type fan.

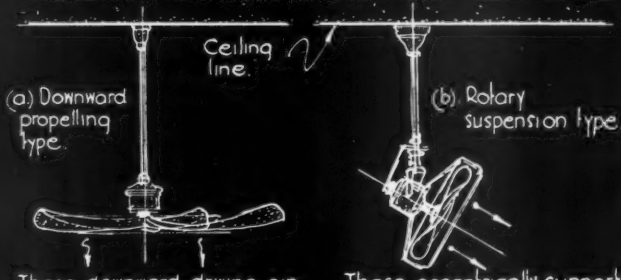


The oscillating type can swing to & fro through a considerable angle, the direction of the air being continuously changed & monotony avoided.

The orbit fan executes periodically a complete orbit while oscillating, & produces air movement over a much wider range.

2. SUSPENDED FANS.

Diagrams of the downward propelling & eccentric types



These downward-driving air propellers are supplied in several sizes, the largest effecting considerable air movement at slow speeds, practically noiselessly.

These eccentrically supported fans move in a circular path round the vertical fixture. The inclination of the spindle can be varied.

Extracts from "Ventilation of Factories and Workshops", Home Office Welfare Pamphlet No. 5, 1937.

INFORMATION SHEET : THE VENTILATION OF FACTORIES & WORKSHOPS : N° 2

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INFORMATION SHEET

• 656 •

THE VENTILATION OF FACTORIES AND WORKSHOPS—II

Subject: Fans

General :

The following information is extracted from "The Ventilation of Factories and Workshops," Home Office Welfare Pamphlet No. 5, issued by His Majesty's Stationery Office, 1937, and is reproduced here by permission of the Controller.

Propeller or Disc Fans :

Provided the excess of pressure (static pressure) on the discharge side of the fan is very small, so that the resistance to the flow of air is practically negligible, these fans are capable of moving large volumes of air with slight expenditure of power. Under this "free air" condition the volume of air discharged by the fan is, for the particular speed at which it is run, a maximum ; air is readily drawn from all surrounding points on the intake side and propelled forward at high speed to a considerable distance on the discharge side.

Abnormally high speeds are uneconomical, as the power consumption is proportional to the cube of the speed. As the volume is proportional to the speed, the power for each thousand cubic feet of air discharged increases rapidly as the speed is raised. Very high speeds can usually be avoided by employing more fans, or fans of larger diameter. Fans run at unduly low speeds are of comparatively little service.

When "free air" conditions do not obtain and the resistance to the flow of air is not negligible, the volume discharged is sometimes very considerably less, as power is wasted in creating internal eddies. To ensure as nearly as possible free air conditions, the speed must be suitable, and in addition :—

(*a*) The air supply to the room must be adequate. Large inlets are essential. Small inlets moreover cause objectionable draughts and are, on that account, more liable to be closed.

(*b*) The flow of air to and from the fan must be unimpeded.

The air flow may be impeded by :—

(1) Restricted air passages at enclosed or screened fans. Ducts should, if possible, be avoided ; if required, they should be short, as straight as possible, smooth internally and free from sharp edges and projections. Bends should be few and very gradual. The cross-sectional area of the duct should, throughout, be not less than that of the fan disc.

(2) Adverse winds. A strong wind blowing directly against a fan may render it useless for the time being. Fans should, therefore, be placed at a side of the room away from the prevailing winds ; wind shields may not then be necessary, but they are usually desirable for fans in exposed positions.

Lower volumes, varying according to the circumstances, must also be anticipated where fans discharge at low positions surrounded by tall buildings.

Loss also occurs unless :—

(1) The fan is fixed at such a position on the spindle that the blade tips are properly "fed" from the room ; the blades should therefore not be inset too far into the wall opening.

(2) The clearance between the blade tips and the frame is small to avoid eddying in this space ; and

(3) All openings round the outside of the frame are closely filled in.

Special types of high-speed propeller fans are available for use where "free air" conditions do not prevail. They give effective results against considerable static pressures, but the air volumes discharged will depend on the static pressure.

Pressure or Centrifugal Fans :

To provide for a given air volume the resistance is carefully estimated ; a suitable fan can then be selected. At a given speed, if the resistance, and therefore the static pressure, are increased the volume is reduced and *vice versa*. There is thus no general approximate law for pressure fans giving the volume discharged at a particular speed. When the pressure is a minimum, i.e. when there is no resistance from ducts or otherwise, the discharge being "free," the volume is a maximum ; when no air is delivered, the discharge being closed, the pressure is a maximum or nearly so. Between these extremes, the variation of volume as the pressure alters is shown by the so-called characteristic curve of the fan, as obtained under test at constant speed. Fans of similar overall dimensions, but with different shapes and arrangements of blades, have different characteristics.

The static pressure is indicated by water gauge : 1 inch water gauge represents a pressure of 5·2 lb. per square foot. If resistances are kept as low as possible, low static pressures (which in much general ventilating work do not exceed 2·5 inches water gauge) suffice and the power required for moving a given volume of air is relatively small. A fan of suitable overall dimensions working at 2 inches water gauge may discharge over 100,000 cubic feet of air per hour per brake horse power.

If the speed of a fan is varied while the resistance is kept constant, the volume discharged, the static pressure and the brake horse power vary as the speed, the square of the speed and the cube of the speed, respectively. It is therefore uneconomical to supply a specified volume of air for a ventilating scheme by means of small high speed fans connected to small ducts.

At constant speed, the brake horse power and the mechanical efficiency vary with the volume. Such fans should be operated under conditions indicating maximum mechanical efficiency, or as near it as possible ; for a particular static pressure this entails working within a comparatively narrow range of blade tip speeds. Fan makers issue catalogues giving, for their designs of fans, the volume and power for these conditions for various static pressures.

Circulating Fans :

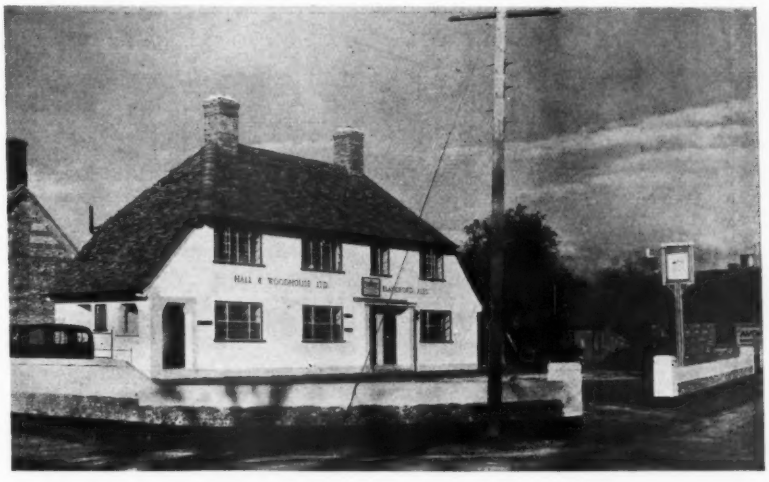
In addition to the two main types of portable and suspended fans shown overleaf, there are other appliances for increasing air movement locally, including the "jet" tube which propels high velocity currents horizontally above the heads of workers and affects large areas ; paddles of cardboard, or similar light material, fixed securely on overhead shafting ; and oscillating wafters fixed on machines, such as looms, to direct intermittent currents of air towards the workers.

Previous Sheet :

The first Sheet of this series, No. 650, deals with natural ventilation.

CROWN INN, TARRANT HINTON, DORSET

DESIGNED BY L. MAGNUS AUSTIN

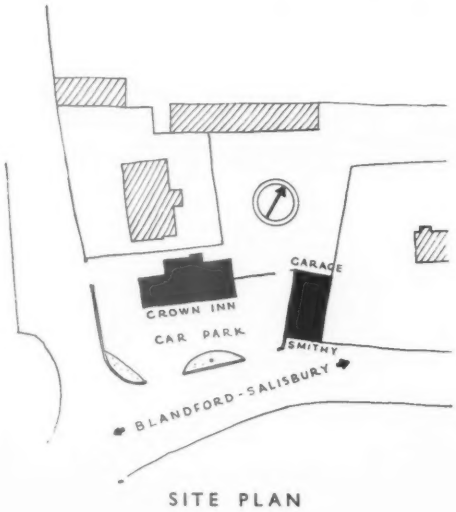


PLAN—*The building is planned so that during non-licensed hours the whole of the licensed portion can be shut off, leaving free access to the tea room and the domestic side of the house. To the west of the site the existing smithy was reconditioned for the use of the tenant, a practising smith.*

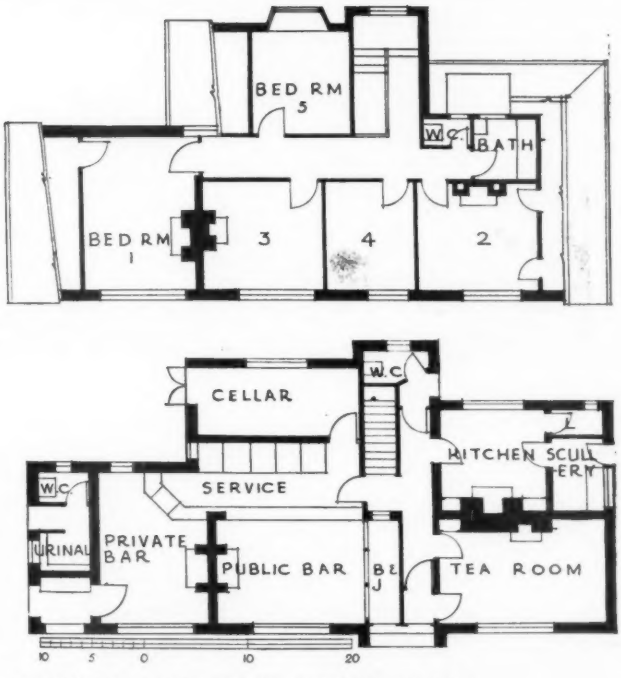
CONSTRUCTION AND FINISHES — *11-in. hollow brick walls with stone plinth and dressings. External finish is a colourwash composed of tallow, yellow ochre and lime. The roof is covered with plain tiles from a demolished barn. Internal walls are distempered cream.*

Right, the entrance front from the main Blandford—Salisbury road. Below, left, the private bar; below, right, the public bar.

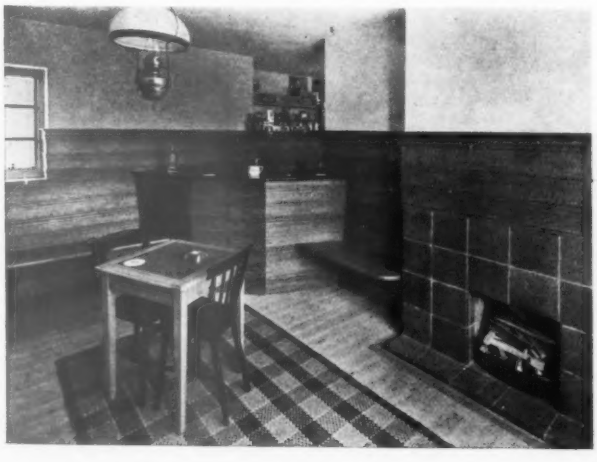
The general contractor was E. E. Boughton.



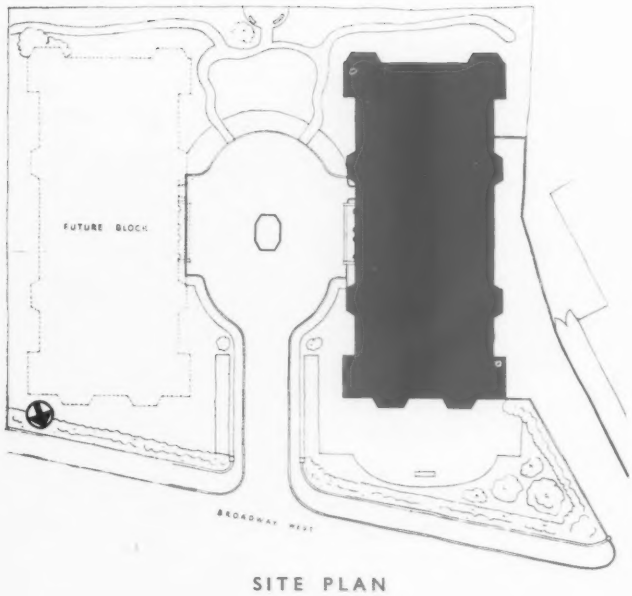
SITE PLAN



GROUND AND FIRST FLOOR PLANS



FLATS AT LEIGH-ON-SEA:



SITE PLAN

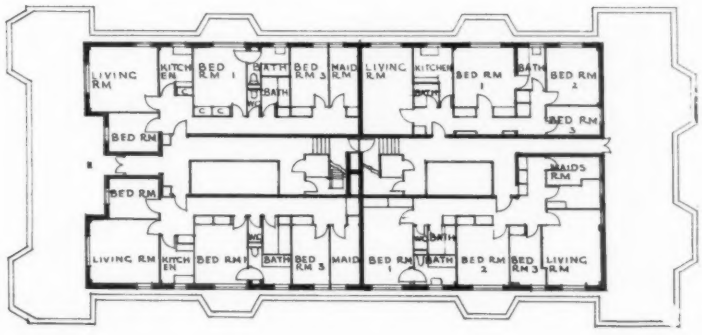
GENERAL—*Flats are known as St. Clements Court, Broadway West, Leigh-on-Sea. Primary object of the scheme is to provide seaside flats for city workers and for local residents at moderate rentals. Flats of various types range in accommodation from single-room flatlets to three-bedroom flats. On the top—the sixth—floor are four flats containing four bedrooms with two bathrooms. The site is at the top of a cliff overlooking the Thames estuary.*

PLAN—*The flats are designed to be run without maids, all kitchens being consequently placed with direct access to the living rooms.*

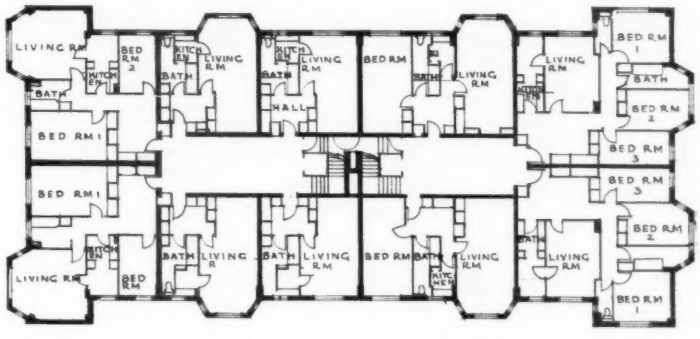
CONSTRUCTION—*The framework is in reinforced concrete with external 11-inch brick cavity walls. The metal windows are bedded against slate checks. The flat roofs are asphalted and finished with asbestos cement tiles.*

Above, a detail of the main entrance.

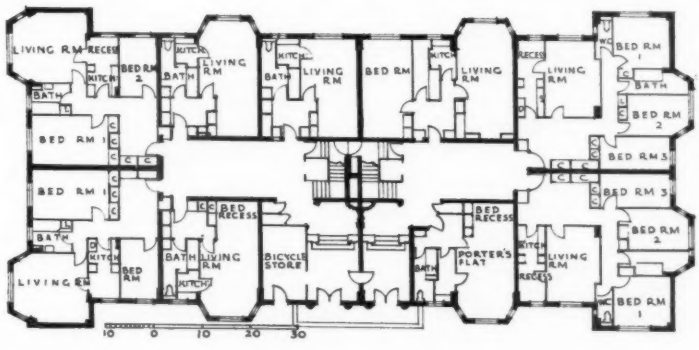
DESIGNED BY MAX HOFLER



SIXTH FLOOR PLAN



TYPICAL
UPPER FLOOR PLAN



GROUND FLOOR PLAN

ELEVATIONAL TREATMENT—*The external facings are in coarse-textured, multi-coloured Dutch bricks with a raked-out joint, with plinth, entrance surround and string-courses in artificial stone rendering.*

INTERNAL FINISHES—*The outer and minor vestibules are finished in a golden cream plastic paint, all woodwork being in a medium grey oak and metalwork in bronze. The vestibule floors are in light-and-dark grey asphalte tiles. The flats themselves are finished as simply as possible, without mouldings or extraneous detail. All W.C.'s are provided with low-level porcelain cisterns, while the larger kitchens have a breakfast-recess. Goods delivery cupboards are provided for each flat combined with a letterbox and rubbish bin under.*

Right, a general view of the main front.

The general contractors were Silpor Ltd.; for list of sub-contractors see page 338.

LITERATURE

AESTHETICS

[*By HERBERT GRIMSDITCH*]

A Guide to Aesthetics. By Aram Torossian. Stanford University Press. London : Humphrey Milford. Price 17s.

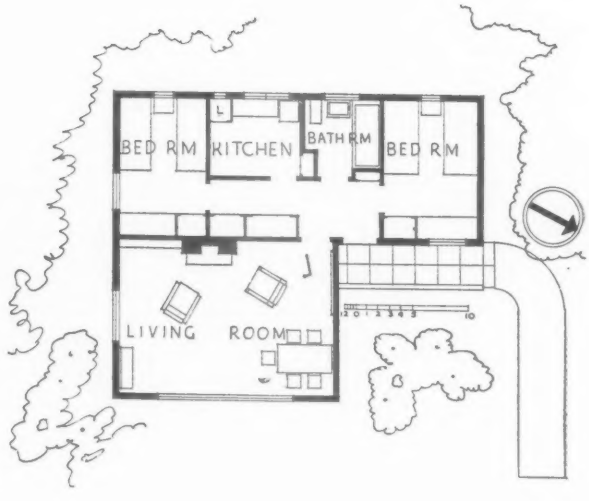
AESTHETICS has until quite recent times been less studied than metaphysics and ethics, probably because of the extreme difficulty of defining beauty and of coming to any permanently valid conclusions about how we are going to be affected by it. Literary criticism, both in the evaluation of specific works and the enunciation of general principles, has a long history, but in the broader field, embracing all the arts, not a great deal had been done until our own day, which has produced such critics as Croce, Vernon Lee, Read, Bosanquet, Berenson and Fry. There were Lessing and Hegel, of course, and our own Burke, Hogarth and Coleridge ; but the great bulk of Mr. Torossian's bibliography is composed of twentieth-century books.

In his own volume we have a " guide," not primarily concerned with the production of any new æsthetic theory, but posing the problem and indicating to the student the lines along which it should be attacked. This Mr. Torossian does with humanity, open-mindedness, and very considerable learning. It is not usual to find a professor of one art (in this case architecture) who can move easily from a discussion of his own subject to well-informed analysis of the principles of other techniques. This ready and rapid transition from painting to prose, from cinema to sculpture, is a strong feature of the book.

The difficulties begin with the metaphysics and psychology. A non-utilitarian building is a rarity ; a utilitarian lyric (except in the Benthamite philosophic meaning) is a monstrosity. And while a fine performance of a tragedy may induce strong emotion, it is hard not to accuse Mr. Torossian of drawing the long bow when he postulates different pulse beats and respiration rates as the result of beholding different types of line. Decoration can be, and often is, purely formal, but literature without " content " is inconceivable.

That it sets the mind to work among these things is a measure of the quality of Mr. Torossian's book. It states very fairly the conditions antecedent to the production of a work of art, the nature of the æsthetic impulse, and factors making for sound critical judgment. In analysis he excels. Occasionally he is grossly contentious, as for example when he states that " . . . there is no inherently bad combination of colours," which seems as much as to say that there is no such thing as a bad smell.

HOUSE IN SUFFOLK:



PLAN

SITE—*Near the village of Waldringfield, overlooking the River Deben. The site is backed by willows and has a gentle slope towards the river.*

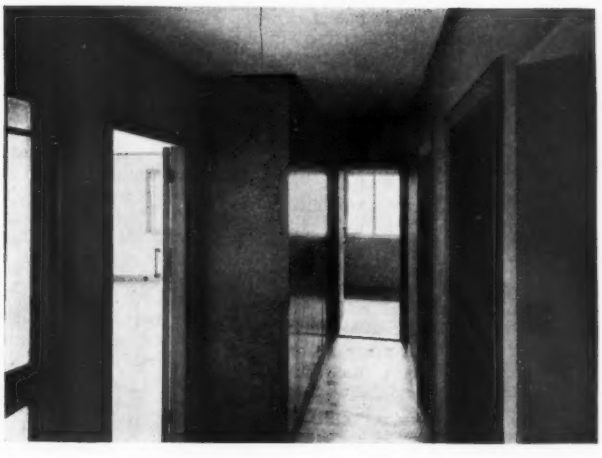
PLAN—*The house has been designed particularly to meet holiday and week-end needs. Rooms are planned to allow the most convenient disposition of essential furniture, and ample cloaks and storage are provided.*

CONSTRUCTION—*Foundations : Walls and terraces are in brick with slate D.P.C. Walls : 4 in. by 2 in. timber studding diagonally braced at corners and openings, faced with cedar weatherboarding externally and a waterproof backing, finished internally with plaster board with joints filled—ceilings similar. Partitions : Plaster board on 3 in. by 2 in. studding. Floor : 4 in. by 2 in. joists at 12 in. centres. Roof : Finished in cedar shingles. Trimmed shingles are used to form neat ridges and hips. Windows : All windows are metal casements in wood frames with oak cills. Main window to living room is sliding-folding type with very low cill.*

EXTERNAL FINISHES—*Cedar walls and roof left to weather naturally. Wood window frames and soffit of eaves are painted oyster grey. Metal sashes are painted pale tomato colour.*

Above, a view from the north.

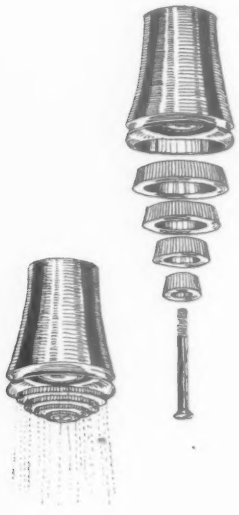
DESIGNED BY RANDALL PLAYFORD



INTERNAL FINISHES—*Doors are flush type throughout with wooden grip handles. Floors : First quality rift sawn British Columbian pine in narrow widths in living room and hall, left natural colour and wax finished. Other rooms, deal. Living room : Doors, and all wood trim in fine-grained British Columbian pine waxed to match flooring. Walls papered with canvas texture paper except chimney breast which is distempered pale sage green. Interior of metal sashes painted green to match distemper. A feature of this room is a large-scale combined map and chart of the surrounding country and cruising grounds, made by the designer. Hall : Floors and trim similar to living room, but walls painted pale green. Bedrooms : Equipped with built-in wardrobes and chests of drawers. All woodwork painted pale fawn against stone-coloured distemper. Kitchen and bathroom : Silver grey enamel finish. Bathroom has bath built in on three sides with flush front panel and splashback in Georgian wired plate.*

SERVICES—*Cooking and lighting are by electricity. Water supply is from well pumped to tank in roof. Drainage is to septic tank.*

Above, the living room showing sliding-folding window ; left, one of the bedrooms; right, the hall, looking towards living room and bedroom.



TRADE NOTES

[*By PHILIP SCHOLBERG*]

The Life of Paint

THE defacement or the preservation of amenities may or may not be a proper subject for comment in these Notes. Probably not. The mental age of the four young gentlemen of the Royal Artillery who decided to paint Stonehenge need not therefore be examined, but it is rather surprising to read that it will be about 1,000 years before the effects of the paint have completely disappeared. Still more surprising that no enterprising manufacturer has so far used this testimony to reinforce his claims for exceptional longevity, particularly as this was presumably a single coat job without any preliminary rubbing down. Knowing how a few short months on an exposed site can remove all visible trace of paint applied in this way, 1,000 years seems an optimistic estimate, and I take it to mean not that the stones will still be a bright green in 1,000 years' time, but that it will be about 1,000 years before the various mosses or lichens or whatever they are decide that the stones are fit to grow on again. But was it a metallic or a synthetic base paint and who made it? Curiosity compels me to ask the question, though I doubt if the answer would be very illuminating. A fortnight ago I congratulated the building industry for not basing its advertising on popular film stars, and it seems that the paint firms deserve another bouquet for keeping quiet about Stonehenge.

Shower Heads

Three or four weeks ago I suggested that the manufacturers of shower heads might well take a glance at the American Speakman shower head, which is arranged with an adjustment for the kind of spray produced, the same adjustment also allowing the water to dribble through a large opening and so clean the head. While this may sound like an unnecessary refinement, the fact remains that the ordinary shower with a head like the rose on a watering can nearly always gets stopped up. Not completely stopped up, of course, but about a third of the holes are generally only producing a dribble instead of a jet, and there is nothing for it but to take the head off and play about with a pin and try to run water through the wrong way in the hope that the dirt gets carried clear. Where all the dirt comes from I do not know, but I suppose it must be sludge from tanks or scale from boilers; anyway it appears in the same mysterious way as fluff in one's pockets, and it is not by any means easy to get it out of the shower head. I have, however, just come across a small head which is new to me. There is a drawing of it at the head of these notes, and it can be seen that it takes to pieces very easily, so that there should be no difficulty about cleaning it. Each of the concentric conical sections is smooth on the inner face and grooved on the outer, so that the water comes out in a series of jets and maintains a fairly concentrated stream. The cones are held in position by the central screw and the head could be taken to pieces, cleaned and put back again in two or three minutes. The cones themselves will be easy to clean without any fiddling about. Finish is chromium plate and the price is 4s. 6d. retail, low enough in all conscience. The standard connection is half-inch gas, other threads to order. I am not quite clear whether this head is meant to be fixed on the end of the ordinary flexible hose one finds as part of the bath tap fixture, or whether it is meant as a wall or ceiling fitting, but it looks as though it would be equally good as either. One of those sensible things which someone ought to have thought of long ago.—(*F. H. Evans, Ltd., 138 Plashet Road, London, E.13.*)

Air Conditioning Units

Steadily the number of air-conditioning appliances on the market increases, the latest arrivals being Kelvinator, who have produced two new models, one water-cooled, the other air-cooled. Both of them can be placed more or less anywhere in the room, but the water-cooled model has the extra complication of the water connections, though even the air-cooled one needs a small drain from the humidifying section. Both models heat or cool, clean and distribute the air, and they also adjust its humidity to the required figure. The section on the next page shows the general layout, and considering the amount of apparatus and thermostats which have to be employed it is surprising that these units are not a good deal larger. As it is they occupy anything up to about 6 sq. ft. of floor space, the smaller sizes occupying about 4 ft. Externally there is nothing to look at beyond the metal casing, which has a series of inlet and outlet grilles, and there are, of course, detachable panels so that it is possible to get at the machinery. Much trouble has been taken to keep the motors silent, and they are arranged not to interfere with radio reception.—(*Kelvinator, Ltd., 258 Gray's Inn Road, London, W.C.1.*)

Bakelite Veneers

Bakelite, Ltd., have just issued a folder containing samples of the more popular colours in which these veneers are made. As a surface finish this material is by now pretty well known, but there are many possible uses for which it has not yet been employed as widely as it might be. The folder cannot show every colour which is made, but the eighteen samples give quite a good idea of the more delicate shades now obtainable. It is only a few years since it was practically impossible to get good clear bright colours (I believe that reds were particularly difficult) hence the rather uninteresting mottled colours from which ash trays still seem to suffer, but this is now ancient history and almost any colour can be obtained. It is a relief, too, to see that the imitation wood grain effects are not shown, though they are presumably still obtainable if anyone really wants them. The sheets are made in two standard sizes, 100 ins. by 50 ins., and 84 ins. by 36 ins., so that sheets of smaller dimensions should be arranged for cutting from one or other of these sizes. The standard thickness is $\frac{3}{64}$ in., except for the blisterproof type, which is $\frac{1}{16}$ in. The sheets are sanded on the back to improve adhesion to the sub-face, and two finishes are standardized, polished and matt. For table and counter tops the polished finish seems preferable, as greasy finger marks show up less, but for wall linings, where a polished surface will show up any unevenness in fixing, the matt surface would seem to be better, anyway above dado height.—(*Bakelite, Ltd., 68 Victoria Street, London, S.W.1.*)

Metalwork

One of the largest catalogues I have ever seen has recently been issued by Frederick Braby & Co., who make everything from metal windows to dog troughs, via wheelbarrows, wire fencing, incinerators, tanks of all kinds, stove pipes, ventilators, glazing bars, pressed steel stairs, stencil letters, corrugated sheets, gutters and r.w. pipes; but the list could be extended indefinitely until it took up almost as much space as the three-hundred-odd pages in the catalogue itself. All one can say is that when it comes to metalwork of any kind this firm makes almost everything imaginable, and that is listed (and generally illustrated) in this catalogue. In the window section there is to be seen a new type of patented collapsible hopper for use in schools, hospitals and public buildings. Normally, of course, the cheeks of the hopper project inwards and are permanently fixed, a detail which

may not matter very much in classrooms, but where windows are set well back in the reveal there may, in corridors, for example, be a space wasting and almost dangerous projection over the available floor space. In Braby's design the cheeks are made up of small overlapping triangular plates hinged together at the bottom ; the end plates are connected to the window frame and to the edge of the opening light, and when the hopper is opened these plates spread out like a fan and form the usual cheeks filling up the triangular space at the side of the hopper. Small metal boxes at each end of the hopper hold the cheeks when the hopper is closed, the total projection being about 2 ins.—(*Frederick Braby & Co., Ltd., Fitzroy Works, 352 Euston Road, London, N.W.1.*)

A New Hardboard

The Celotex people are now producing a new hardboard in all the usual sizes, 6, 8, 10, and 12 ft. lengths by 4 ft. wide, with a thickness of $\frac{1}{8}$ in. The face of the board has a fairly highly glazed surface which looks rather as though it had been given a single coat of varnish, and the back has a canvas texture which looks quite pleasant if you do not need the extra smooth finish. Fixing is much the same as for other hardboards—studs at not more than 16-ins. centres, and the price varies from $3\frac{3}{4}$d. to $3\frac{1}{2}$d. a sq. ft., according to the size of the order. There is also a $\frac{1}{4}$ in. thick panel board made on the same lines, the difference being that it is not so highly compressed as the hardboard, and is therefore somewhat easier to work. All these boards are treated by the Ferox process, which renders them proof against dry rot, fungus and termites, a sensible precaution, as these boards are often used for sheathing garden sheds and summer houses, where the conditions are quite severe.

Mention of termites reminds me of other vermin to be found in this country. In common, I suppose, with most other people, I have heard from time to time that bugs are supposed to like Celotex because it contains sugar. This is apparently not true. The raw material used for the manufacture of Celotex is bagasse, the trade name for sugar cane after the sugar has been extracted. About 97 per cent. of the sugar is removed from the cane in the refinery, and before the bagasse is used for the manufacture of wallboard it is matured for anything up to five years, during which time the remaining sugar ferments and forms a whole lot of different acid products, none of which would be likely to find favour with vermin of any kind. But the Celotex people point out, with some justification, that sugar is extremely soluble, that the first stage of their process is to mix 1 per cent. of bagasse with 99 per cent. water, all the water being subsequently filtered away or dried off, so they maintain that even if they *did* use bagasse with 4 per cent. sugar there still wouldn't be any in the finished board. To prove their point (apart from analysis of the finished product) they quote two letters from a property owner who lined some old vermin-infested houses with Celotex and who says that things no longer come out of the walls. Maybe they still come out of the ceilings or the floor ; I don't know. Celotex do not recommend that all bugs should forthwith be built in behind layers of wallboard, but they do suggest that they would never have had those letters if their material were the favourite bug food which some people think it is. Which seems a fair argument.—(*Celotex, Ltd., North Circular Road, Stonebridge Park, London, N.W.10.*)

Welsh School of Architecture

The school year of the Welsh School of Architecture, Cardiff Technical College, commences on Monday, October 3, but intending students are advised to apply at an early date for the particulars of the courses of instruction and of the entrance and scholarship examinations. Candidates for the latter should obtain application forms, which must be completed and submitted by September 15.

At this college ten scholarships covering tuition fees and maintenance grants of £40 per annum for three years are offered for competition annually. As candidates for entry to the Welsh School of Architecture are eligible to compete for these scholarships, they are of considerable interest to those contemplating entering the architectural profession.

The Welsh School of Architecture has now been at work for rather more than 17 years under the charge of Mr. W. S. Purchon, M.A., F.R.I.B.A., the lecturer in architecture being Mr. Lewis John, M.A., B.ARCH., A.R.I.B.A., and the assistant lecturers, Mr. R. Hartley, A.R.I.B.A., Mr. C. L. Matthew, A.R.I.B.A., and Mr. G. C. Quilliam, B.ARCH. (Liverpool).

The following local architects assist in the work of the advanced courses as honorary lecturers :—Messrs. Percy Thomas, PP.R.I.B.A., Ivor P. Jones, A.R.I.B.A., T. Alwyn Lloyd, F.R.I.B.A., PP.T.P.I., H. Teather, F.R.I.B.A., J. Williamson, A.R.I.B.A., A. J. Hayes, C. F. Jones, A.R.I.B.A., John Bishop, A.R.I.B.A., C. F. Bates, A.R.I.B.A.

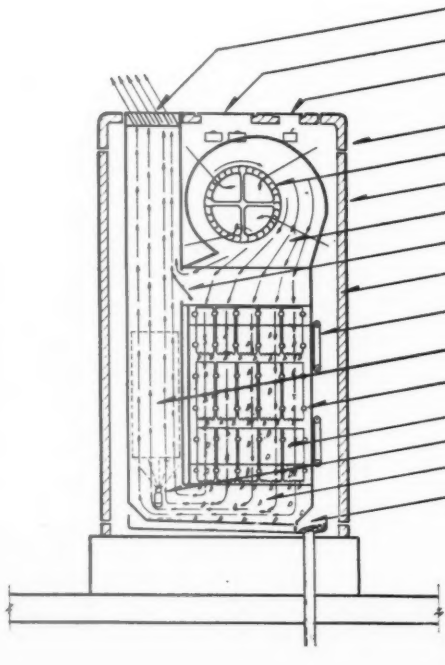
Students in the department also attend courses of instruction in the departments of engineering, technical chemistry, mathematics, physics, and the School of Art, all of which are housed in the same building, while special lectures on (*a*) geology of building materials, (*b*) growth, characteristics and diseases of timbers, and (*c*) law as applied to professional practice are given, respectively, by Messrs. F. J. North, D.SC., F.G.S. (Keeper of the Department of Geology, National Museum of Wales), M. A. Hyde, M.A., F.L.S. (Keeper of the Department of Botany, National Museum of Wales), and E. W. David, LL.B.

The three years' full-time day course leads to the award of the certificate, to the holders of which the R.I.B.A. grants exemption from its Intermediate Examination, while those students who successfully pass through the diploma course are exempted from the R.I.B.A. Final Examination, a special course of lectures on professional practice and a special examination in this subject being held in the school. Success in the diploma course also forms a complete qualification for registration under the Architects' (Registration) Act of 1931. This diploma course follows the certificate course and consists of two sessions, the former of these being normally of six months' duration only, the intervening six months being spent in architects' offices.

The Court of the University of Wales has recently approved a scheme for the award of degrees in architecture. The scheme includes for a preliminary year in any one of the colleges of the University of Wales, followed by a five-year course in the Welsh School of Architecture. The courses for the degree will begin in October 1938.

There is also an evening Atelier for architects' assistants who cannot attend the day courses.

The external examiners are Professor L. B. Budden, of the University of Liverpool, and Mr. W. B. Edwards, of King's College, Newcastle-upon-Tyne.



Section through a new air-conditioning unit by Kelvinator, Ltd. (*See note on page 336.*)

Manufacturers' Items

The third edition of *Practical Cable Joinery* has just been issued by W. T. Henley's Telegraph Works Co., Ltd., of Holborn Viaduct, E.C.1 (price 5s., postage 6d. extra). The first and second editions have firmly established the handbook as an authority on that most important branch of electrical engineering known as cable jointing. The present edition contains over 500 reproductions of actual photographs, with numerous line diagrams. The 341 pages are closely packed with practical instructions and useful hints.

Among the new sections which have been added to the third edition are instructions on "Jointing Dwarf Type Overground Disconnecting Boxes" and the "Jointing of Screened Type Cables." "Testing for Moisture in Paper Insulated Cables" is another new item, and the pages of safety first precautions against electric shock and fire are particularly useful to beginners.

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"The Street," Number 5 in the *Decoration of Today* series issued by Nobel Chemical Finishes, Ltd. (Nobel House, Buckingham

Gate, S.W.1), is designed by Robert Jordan, F.R.I.B.A., to illustrate the architectural use of colour and to show its fundamental importance in building. The cover shows a town street, typical of the middle-class houses of the last generation, with their basement areas and front flight of steps, now becoming more and more depressing in appearance while still sound in structure. Inside is shown the same row of buildings, transformed by the intelligent use of paint ; the proportions have been altered and the details picked out with the result that the houses look cooler in summer and more cheerful in winter. The third illustration shows how a street can look with colour employed as a structural element, the use of paint being planned from the beginning. Brick, rendered in cement or concrete, is suggested for the walls ; concrete for the projecting frames of windows and doors ; metal for the casements and door columns, and flush plywood for the doors. Paint is used for the decoration and preservation of all these finishes.

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An interesting new handbook for architects, builders and interior decorators has just been published by Celotex, Ltd., whose new factory at Stonebridge Park, Middlesex, is now beginning production.

The new handbook is, in effect, a review of the whole range of structural cane fibre products, and their application in various types of architecture, building and interior decoration. The products touched upon range from Celotex insulating board to Celotex mouldings and ornaments and Acousti-Celotex for sound-absorption.

A particularly interesting feature of the handbook is devoted to a series of pictures of the new Celotex building (architect, Septimus Warwick, F.R.I.B.A.) in which a number of interior photographs depict the effective use of Celotex in scores of different styles. In conjunction with the photographs, sectional plans of the various rooms are published, indicating how the various Celotex products are incorporated.

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A special department employed to design and manufacture electric panel fires to architects' individual requirements is being developed by Messrs. Electroway Heaters, Ltd., of Loughborough. This service is meeting with considerable success, particularly in connection with large-scale fire installations in blocks of flats. Recent contracts secured by Messrs. Electroway include Du Cane Court (architect, G. Kay Green) ; St. Margaret's, Rottingdean ; Osborne Court, Cowes ; High Trees House (architect, R. W. H. Jones) ; and flats at Mapesbury Road, Brondesbury (architect, G. Victor Kerr).

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Fifty Years of Growth is the title of a brochure recently published by the Dunlop Rubber Company to celebrate the jubilee of J. B. Dunlop's invention of the pneumatic tyre.

It was, in the words of Sir George Beharrell, the Dunlop chairman, an epoch-making advance, for " without the pneumatic tyre, the world would never have known the development of the cycle, the motor-car, and the aeroplane as we know them today."

What those changes have meant is illustrated in picture and text in this anniversary book. The story passes from Dunlop's experiments with the first pneumatic tyre (fixed by a strip of linen to a wooden disc) to the founding and remarkable progress of the company. It tells of the 50 years of research and experience that have gone to make the famous " Fort " tyre, of the application of rubber not only to tyres, but to sports goods, shoes, garments, cushions (of " honeycombed " rubber), etc.

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Two new booklets have just been issued by Gent & Co., Ltd., Electrical Engineers, Faraday Works, Leicester. Booklet 1 (section 3) deals with " Tangent " electro-motor syrens which are extensively used for " Start and Cease Work " signals, for fire alarms in connection with the new Factory Act, and also in connection with A.R.P. work. Book 1 (section 5) deals with the " Tangent " staff locator, the purpose of which is to locate immediately a member of staff or important executive.

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Messrs. Stelcon (Industrial Floors), Ltd., of Clifford's Inn, W.C.1, latest catalogue describes the alternative forms of Stelcon industrial floors for factories, warehouses, etc. It is amply illustrated.

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Park Improvements is the title of an illustrated brochure just issued by the Cement and Concrete Association, of 52 Grosvenor Gardens, London, S.W.1. The purpose of the publication is described in the foreword, extracts from which are printed below : " In the brochure an attempt has been made to give useful information on park design and improvement, and to indicate ways in which the amenities may be enhanced and money saved by a judicious use of cement concrete. The technical details of concrete construction are outside the scope of this brochure, but the necessary information may be obtained from the Cement and Concrete Association's literature on the various subjects concerned. A list of publications likely to interest park authorities is given. Copies may be obtained post free in Great Britain and Northern Ireland on application to headquarters or any branch office of the Association.

" Those interested in this subject should not fail to take advantage of the personal service available at any of the offices of the Association, where they can obtain interviews with fully-qualified authorities on the various points that arise from the use of concrete."

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There are now in this country about 1,500 ante-natal clinics, 3,000 child welfare centres and 2,125 permanent school clinics. During last year over 139,000 children received free meals under the schemes instituted by the local authorities. These figures give some indication of the growth of the public health services during the last few years.

This widespread service involves the provision of buildings of various kinds and their careful planning and equipping. One of the most important items in the latter is naturally the fuel service to be installed, for on this depends in a large measure the smooth running and efficiency of the institution, whatever its nature.

A useful guide on the subject, illustrated by description and photographs of recently opened public health institutions of various kinds, has just been published by the British Commercial Gas Association. *The Public Health Services* is its title, and among the buildings described, all of which rely largely on gas for various essential purposes, are the Deptford Central Clinic, the City of Westminster Maternity and Child Welfare Centre (the new building of which was opened by H.M. the Queen last year), Powick Mental Hospital, Worcester, and the Liverpool Education Committee's Central Kitchen for the feeding of some 5,000 necessitous school-children.

Copies can be obtained free of charge from any gas undertaking or from the publishers, Gas Industry House, 1 Grosvenor Place, London, S.W.1.

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A new catalogue (No. 45A) devoted to Callender shipwiring cables has just been issued by Callender's Cable and Construction Co., Ltd., of Hamilton House, Victoria Embankment, London, E.C.4. The cables listed in the catalogue are made and tested in accordance with the standards and formulæ of the Cable Makers' Association, and it is stated by the manufacturers, " combine the experience of the past with the latest achievements in scientific research, proved before adoption. They comply with the B.S.I. Specification, and provide maximum efficiency and reliability." It is further stated that " in addition to the cables described in the catalogue we manufacture rubber insulated cables and flexibles for every description of lighting, power, telephone, signalling and other electrical purposes, including cables for colliery work, outdoor distribution, automobile and aircraft equipment."

Messrs. Ioco Rubber and Waterproofing Co. inform us that the recent fire at their works at Anniesland, Glasgow, was quickly put out, and that although some little damage resulted, the production of their " Zapon " Leathercloth remains entirely unaltered and orders are being carried out as usual without hindrance. The fire occurred only in the " Zapon " Leathercloth department, and in no way affects their other manufactures, which of course are being produced in the ordinary way.

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In a recent issue of the JOURNAL we published a list of sub-contractors for Neville House and the Paviours Arms. We omitted to include in the list the name of Messrs. J. C. Birch, who supplied " Sylenz " sound insulating floor clips for the flooring throughout the buildings.

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In the list of sub-contractors for the Birmingham Hospitals Centre, published in our issue for July 14, we stated that the gas cookers were supplied by the City of Birmingham Gas Department. We are informed that the cookers were manufactured by Radiation Ltd.

THE BUILDINGS ILLUSTRATED

NEWNHAM COLLEGE, CAMBRIDGE (pages 318-322). Architects : Scott, Shepherd and Breakwell. The general contractors were Rattee and Kett, and sub-contractors and suppliers included : S. and E. Collier, external facing bricks ; Williamson Cliff, internal facing bricks ; F. Bradford & Co., Ltd., hollow block-floor and reinforced concrete stairs ; F. McNeill & Co., bituminous roofing ; Cellulin Flooring Co., cellulin floors ; Granwood Flooring Co., granwood block floors ; Merchant Adventurers of London, Ltd., Ascog, Ltd., light fittings ; Davis Gas Stove Co., gas fires ; Comyn Ching & Co., Ltd., metalwork ; Dryad Metalworks, door furniture ; J. P. White and Sons, special joinery ; Walter Jenkins & Co., marble ; C. E. Welstead, metal windows ; T. R. Freeman, heating, hot water and plumbing ; Burstall and Monkhouse, heating and hot water consultants ; Thorn and Hoddle, electric wiring ; Couzens and Brown, electric consultants ; Cameron and Stephens, quantity surveyors.

ST. CLEMENTS COURT, BROADWAY WEST, LEIGH-ON-SEA (pages 332–333). Architect : Max R. Hofler. Consulting Architects : Honegger Bros., Geneva. The general contractors were Silpor, Ltd., who were also responsible for dampcourses. Sub-contractors and suppliers included : Caxton Floors, Ltd., foundations, reinforced concrete, fireproof construction ; Bright's Asphalt Contractors, Ltd., asphalt and special roofings, roofing felt ; Roberts, Adlard & Co., Leigh Building Supply Co., bricks ; Enfield Stone Co., Ltd., artificial stone (cills, copings and steps) ; Isteg Steel Products, Ltd., structural steel ; Leigh Building Supply Co., partition blocks ; Paragon Glazing Co., Ltd., skylights ; Smart & Co., Ltd., cork and asphalt tile floors ; Sika Francois, Ltd., waterproofing materials ; Coleman and Hoskins, central heating ; Gas Light and Coke Co., gasfittings ; Hall Boilers, Ltd., boilers ; Weston (Westcliff), Ltd., electric wiring, light fixtures, fires, bells ; Coleman and Hoskins, plumbing ; Nicholls and Clarke, John Bolding and Sons, Ltd., sanitary fittings ; W. A. Telling, Ltd., stair treads (grano steps to staircases), plaster, artificial stone facings ; Matthews Bros., Ltd., door furniture, railings ; Rustproof Metal Window Co., Ltd., casements ; " Daltons," joinery ; H. G. Barham, Ltd., flush doors and timber ; M. and R. Moore, Ltd., marble panels for electric fires ; E. F. Andrews & Co., Ltd., wall tiling, glass and glazing ; Smerdon, show flats' furnishing ; Starline Varnish and Enamel Co., Ltd., paint ; Robinson and Bingham, painting and decorating ; R. F. Malcott, garden layout ; R. A. Evans, Ltd., passenger lifts ; Scaffolding (Gt. Britain), Ltd., cranes ; Kernerator Co., incinerator.

THE WEEK'S BUILDING NEWS

BARROW-IN-FURNESS. *Police Station.* The Corporation is to purchase land on the Jute Works site for the erection of a new central police station and magistrates court, etc.

BARROW-IN-FURNESS. *Alterations, etc.* Plans passed by the Corporation: Alterations and additions, Working Men's Club, Abbey Road, Barrow Working Men's Club; 10 houses, Rakesmoor Lane, W. Hull and Sons, Ltd.; nine houses, Central Drive, Mr. J. Fisher; two bungalows, North Scale, Mr. Geo. Swarbrick; shop and two houses, Oxford Street, Mr. Longstaffe; lay-out, Moor Tarn Lane, Styles and Bates, Ltd.

BIDDULPH. *Boiler-house, etc.* The Lancashire C.C. is to provide a new boiler-house and equipment at Biddulph Orthopædic Hospital, at a cost of £17,250.

BIRMINGHAM. *Rehousing.* The Corporation has obtained sanction to borrow loans amounting to £1,000,000 to meet estimated rehousing expenditure to the end of December next.

BOLTON. *Improvement Scheme.* The Corporation has purchased Smithills Hall Estate for the benefit, improvement or development of the borough, at a cost of £70,800.

BOURNEMOUTH. *Pavilion, etc.* The Bournemouth Corporation has obtained sanction to borrow £13,370 for the erection of sports pavilions and groundsman's house at the school playing fields.

BRACKLEY. *Houses.* The R.D.C. is to erect 110 houses on various sites in the rural district, at a cost of £37,412.

BURSLEM. *Offices, etc.* Plans passed: Offices, Bond Street, for Mr. J. Dickinson; club premises, Sneyd Street, for Messrs. Leake & Co.; two houses, Abbotts Drive, for Mr. J. Thompson; four houses, Milton Road, for Mr. H. C. Mountford; alterations, 1 to 11 Grange Street, for Mr. W. Love; alterations and additions, Newcastle Street, for Susie Cooper Pottery, Ltd.

CHESTER. *School.* The Chester Education Committee has approved preliminary plans of the proposed new Roman Catholic school.

CHESTER. *Houses.* The Corporation has arranged with Messrs. C. J. Curtis & Co., to erect 100 houses at Blacon.

CHESTERFIELD. *Houses.* The Corporation has obtained sanction to borrow £34,925 for the erection of 91 houses at Bacons Lane and Colow Lane.

CHORLEY. *Grammar School.* The Lancashire Education Committee has purchased a site at Chorley for the erection of a grammar school.

CRUDGINGTON. *School.* The Shropshire Education Committee is to purchase land at Crudgington for a senior school.

DAWLEY. *School.* The Shropshire Education Committee is to erect a senior school for 380 at Dawley.

DURHAM. *Houses.* The Durham R.D.C. is to erect 14 houses in St. Cuthberts Road, Shadforth.

FLEETWOOD BLAKISTAN. *School.* The Lancashire Education Committee is to erect an elementary school at Fleetwood Blakistan at a cost of £18,276.

HANLEY. *Alterations, etc.* Plans passed: Alterations, Victoria Hotel, Victoria Square, for Messrs. Bass, Ratcliffe and Gretton, Ltd.; alterations and additions, Eastwood Works, for Messrs. Taylor, Tunnicliff & Co., Ltd.; alterations and additions, "George and Dragon" public-house, New Street, for Messrs. G. and J. Munroe; kilns, Allestan Works, for Fireclay Product Co.; three houses, Birchgate Grove, for Mr. H. Clowes; two houses, off Fellbrook Lane, for Northmere Building Co., Ltd.; additions, Slippery Lane, for Messrs. A. G. Hackney & Co.; shop, Fountain Square, for Messrs. Stead and Simpson; five houses, Ivy House Road, for Mr. G. T. Smith.

HAYDOCK. *Houses.* The U.D.C. is to erect 124 houses on the Church Road site, at a cost of £44,385.

IRLAM. *School Enlargement.* The Lancashire Education Committee is to enlarge the central school, Irlam, at a cost of £16,647.

LANCASTER. *Infirmary Enlargements.* The Lancashire C.C and the Lancaster Corporation are to enlarge the Lancaster Royal Infirmary.

LEEDS. *Hospital.* The Corporation has approved the proposal for the erection of a hospital for sick children on the Moortown estate, and is to appoint a consultant architect and a local architect in connection with the erection of the new hospital.

LEEDS. *Housing.* At a meeting of the Leeds Corporation, the housing director reported with respect to the provisions of the Housing Act, 1938, relating to the development of expensive sites, and submitted designs and plans of flats suggested as suitable for erection on the smaller clearance areas belonging to the Corporation. The designs and plans were approved.

LEEDS. *Unhealthy Area Orders.* The Corporation has voted £200,000 for the acquisition of properties and the demolition of buildings in connection with unhealthy area orders.

LEEDS. *Church Hall.* The Leeds Congregational Council is to erect a temporary church hall on the Middleton housing estate.

LEEDS. *Dwellings, etc.* The Corporation has obtained sanction to borrow £47,230 and £62,887 for road and sewer works, the erection of 40 dwellings, four houses and shops on Patternewton and Belle Isle housing estates.

LEINTWARDINE. *School.* The Herefordshire Education Committee is to provide an elementary school for about 160 senior children at Leintwardine.

LIMEHURST. *Houses.* The R.D.C. is to erect 48 houses on various sites, at a cost of £21,010.

LUDLOW. *School.* The Shropshire Education Committee is to erect a senior school for approximately 240 children to serve the Ludlow rural area.

MALDON. *Houses.* The R.D.C. is to erect 58 houses on various sites in the rural district, at a cost of £23,098.

MANSFIELD. *Houses, etc.* Plans passed by the Corporation: Four houses, Thorn Avenue, Barks, Edwards & Co.; extensions, Union Street, Stokes Castings, Ltd.; house, Hillsway Crescent, Mr. J. Wilson; three houses, Hillsway Crescent, Mr. J. Handby; office, Chesterfield Road, T. Smith and Sons (Mansfield), Ltd.; four houses, Debdale Lane Mr. A. Temple; house, showroom and garage, junction of King's Mill Lane and Sutton Road, Mr. T. H. B. Topham; garage and dairy Matlock Avenue, Mr. J. Boole.

MARKET HARBOROUGH. *Houses, etc.* Plans passed by the U.D.C.: Four houses, Highcross Street, Mr. W. J. Smith; two houses, Bellfields Lane, Mr. A. G. Tilley; house, Kettering Road, Mr. E. H. Page; house, Burnmill Road, Mr. R. S. Streather; new church, Northampton Road, St. Hugh's Church Committee.

MORECAMBE. *Washhouse, etc.* Plans passed by the Corporation: Washhouse, 24 Warley Avenue, Mr. F. Craven; four houses, Draycombe Drive, Swithenbank and Ladell; four houses, Eldon Grove, Mr. G. Jackson; 11 houses, Hestham Grove, Mr. F. V. Hollinshead; two bungalows, Eldon Grove, Mr. R. Naylor; theatre, café and shops, Marine Road, Empire Theatre, Ltd.; two houses, Broadway, Mr. W. Quayle; two houses, St. Mary's Road, R. Kitchen and Son; pavilion and kursaal, Harbour Gardens, Old Harbour Committee; guest house, Smithy Lane, Mr. F. C. Shackleton; lay-out, Anstable Holme Estate, Mr. A. Whitehead.

OLDBURY. *Roads.* The Corporation is to construct roads on the Causeway Green Estate, where it is proposed to erect 276 houses, at a cost of £18,000.

PENKETH. *School.* The Lancashire Education Committee is to erect a senior school at Penketh, at a cost of £31,390.

PONTEFRACT. *Houses.* The Pontefract Education Committee is considering plans by the architect, Mr. S. V. Smith, for the erection of a senior school at Carleton Park, at a cost of £30,270.

PRIORS LEE. *School.* The Shropshire Education Committee has acquired land in Freeston Avenue, Priors Lee, for a new senior school.

ROTHERHAM. *Houses.* The Corporation has obtained sanction to borrow £44,747 for the erection of 130 houses.

SHEFFIELD. *Swimming Baths.* The Corporation has asked the City architect to prepare plans for the erection of a swimming bath on a site at North Quadrant, Firth Park, and is to consider the suitability of a site at Darnall for the erection of a swimming bath.

STOKE. *Assembly Rooms, etc.* Plans passed: Assembly rooms, Back Glebe Street, for Mercia Estates; stores, Bowstead Street, for P.M.T., Ltd.; alterations and additions, Spode Works, High Street, for Messrs. W. T. Copeland and Sons, Ltd.; two houses, Albany Road, for Mrs. S. G. Pearson; two houses, Hunters Drive, for Mr. J. Thomson; squash court, Barlaston Road, for Trentham Golf Club; alterations, "Oddfellows Arms" public-house, Chapel Street, Fenton, for Parkers Burslem Brewery, Ltd.; kiln, Victoria Road, for Manor Tile Co., Ltd.; two houses, Russell Street, for Mr. R. Thorley; four houses, Parkfield Road, for Mr. J. H. Summerfield; two houses, Anchor Road, for Mr. F. G. Hand; medical ward, Princes Road, for N.S. Royal Infirmary; two houses, Beechfield Avenue, for Mr. J. Woodward; alterations, "Compasses" Inn, Temple Street, Fenton, for Messrs. J. Joule and Sons; four houses, off Highfield Drive, for Mr. F. Shenton; two houses, off Blurton Road, for Mr. J. Turnock; four houses, Highfield Avenue, for Mr. J. Horton; 14 houses, Smith Street, Longton, for Messrs. W. C. Beech & Co.

SUTTON COLDFIELD. *Houses.* Plans passed by the Corporation: Two houses, Buxton Road, Mr. T. P. Smith; 15 houses, Donegal Road, Mr. S. Thornywork; two houses, Jordan Road, C. M. Brown & Co.; four houses, Monmouth Drive, Mr. W. J. Phillips; two houses, Sutton Oak Road, Mr. T. A. Glynn; 16 houses, Worcester Lane, Newbury and Son; six houses, Walmley Road, Mr. A. P. Johnson.

SWANSEA. *School.* The Swansea Education Committee is to obtain a site for a school in the Cwm, Bonymaen and Pentrechwyth area, where the Housing Committee is to erect 614 houses.

SWINDON. *School.* The Swindon Education Committee has obtained sanction to borrow £56,842 for the erection of an elementary school at Drove Road.

TAUNTON. *Houses.* The Corporation is to erect 110 houses at Halcon and 56 houses at Lyngford, at a cost of £57,550.

SCOTLAND

GLASGOW. *Extensions.* The Glasgow Education Committee is to enlarge the St. Columba's School, at a cost of £84,250.

GLASGOW. *School.* The Glasgow Education Committee is to erect a senior secondary school at Knightswood, at a cost of £134,000.

GLASGOW. *School.* The Glasgow Education Committee has approved plans for a new secondary school at Whitehill, at a cost of £178,000.

GLASGOW. *Housing.* At a meeting of the Glasgow Corporation Housing Committee, the director reported that he will be in a position to commence at an early date the construction of schemes at Harriet Street (18 houses), Copland Road extension (36 houses), Balgraybank (four houses), Balornock and Robroyston (1,750 houses), Barrowfield (480 houses), Deanston Drive (128 houses) and Mill Road, Yoker (600 houses), and asked for instructions as to the method to be adopted for the construction thereof. It was moved that the director be instructed to arrange for the construction of the schemes at Harriet Street, Copland Road extension, Balgraybank and Balornock and Robroyston by direct labour, and to invite offers for the construction of the remaining schemes. An amendment was proposed that the instruction to the director so far as relating to Balornock and Robroyston scheme be to the effect that he arrange for the construction of approximately one-half of the houses by direct labour and for the invitation of offers for the construction of the remaining half, so that a comparison between the two methods of construction may be obtained. Six members voted for the motion and four for the amendment. The motion was accordingly declared to be carried.

Copies of the loose supplement containing the labour rates for the principal towns and districts throughout the country can be obtained from the JOURNAL, price 2d. to cover postage.

PRICES

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

1. **Current Market Prices of Materials, Part I.** (published last week)
2. **Current Market Prices of Materials, Part II.**
3. **Current Prices for Measured Work, Part I.**
4. **A.—Current Prices for Measured Work, Part II.**
   B.—Prices for Approximate Estimates.

PART 2

IMMEDIATELY below, Messrs. Davis and Belfield mention the principal changes which have occurred in the last month. Similar notes, and the deductions that may be drawn from them, will be published on this page each month.

NOTES ON PRICE CHANGES

Prices generally remain practically unchanged.

O. A. DAVIS, P.A.S.I.

Prices vary according to quality and the quantity ordered.

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

CURRENT MARKET PRICES OF MATERIALS

BY DAVIS AND BELFIELD, P.A.S.I.

JOINER

Prices are for standards in one delivery; when less than a standard is required, or special lengths, add £1 per standard

Joinery Timber

				Per standard £ s. d.	Per foot cube £ s. d.
3″×9″	Scantling	2nd	Archangel	41 0 0	4 11¾
*3″×9″	,,	3rd	,, ...	27 0 0	3 3½
2″×9″	,,	2nd	,, ...	46 10 0	5 7¾
*2″×9″	,,	3rd	,, ...	27 10 0	3 4
3″×8″	,,	2nd	,, ...	32 0 0	3 10¾
*3″×8″	,,	3rd	,, ...	24 0 0	2 11
2″×8″	,,	2nd	,, ...	34 0 0	4 1½
*2″×8″	,,	3rd	,, ...	24 0 0	2 11
3″×7″	,,	2nd	,, ...	31 10 0	3 10
*3″×7″	,,	3rd	,, ...	23 0 0	2 9½
2″×7″	,,	2nd	,, ...	34 0 0	4 1½
*2″×7″	,,	3rd	,, ...	22 0 0	2 8
*2″×6″	,,	u/s	,, ...	21 0 0	2 7½
*1¼″×11″	,,	3rd	,, ...	38 0 0	4 7½
*1¼″×9″	,,	u/s	,, ...	34 0 0	4 1½
1″×9″	,,	2nd	,, ...	46 10 0	5 7¾
*1″×9″	,,	3rd	,, ...	34 10 0	4 2¼
1″×11″	,,	2nd	,, ...	49 0 0	5 11½
1″×11″	,,	3rd	,, ...	39 0 0	4 8¾
1¼″×9″	,,	2nd	,, ...	46 10 0	5 7¾
*1¼″×9″	,,	3rd	,, ...	35 0 0	4 3
1¼″×11″	,,	2nd	,, ...	49 10 0	6 0
1¼″×11″	..	3rd	,, ...	40 10 0	4 11

JOINER—(*continued*)

Flooring

		7/8″	1″	1½″
Yellow deal, plain edge in batten widths ..	per square	19/9	*22/6	*28/6
Ditto, T. & G.	per square	20/3	*23/–	*29/–
T. & G. rift sawn B.C. pine in 4″ widths ..	per square		29/–	
T. & G. random grain, in 4″ widths	per square		17/6	

Wall Linings

Deal Match Boarding :—

*1″×6″ T.G.B.	per square	24/–
1″×4½″ T.G.V.	per square	24/–
*¾″×6″ T.G.B.	per square	18/–
*¾″×4½″ T.G.V.	per square	17/6
*⅝″×6″ T.G.B.	per square	15/6
*⅝″×4½″ T.G.V.	per square	15/–
*½″×4½″ T.G.V.	per square	12/–

Asbestos-Cement :—

5/32″ Semi-compressed flat building sheets, grey	per yard super	1/3¾
3/16″ Ditto	per yard super	1/4½
¼″ Ditto	per yard super	1/11
¼″ Metal reinforced flat building sheets	per yard super ..	3/4

Prices are for orders of less than 1 ton.

*** Items marked thus have fallen in price since July 28.**

CURRENT PRICES

BY DAVIS AND BELFIELD, P.A.S.I.

JOINER AND STEEL AND IRONWORKER

JOINER—(*continued*)

Wall Boards :—

Asbestos-cement wall board (in sheets 8′ 0″ × 4′ 0″ only) under 5,000 feet super	per foot super			–/2½
Asbestos-cement stipple glazed sheets (in sheets 8′ 0″ × 4′ 0″ only)	per yard super			7/6
Ditto, plain white glazed sheets (in sheets 8′ 0″ × 4′ 0″ only)	per yard super			8/6
Marble glazed sheets (in sheets 8′ 0″ × 4′ 0″ and 4′ 0″ × 4′ 0″)	per yard super			7/6

	300 yards.	300–1,000 yards.	1,000–2,000 yards.
½″ Fibre board	2/–	1/10½	1/9

		25–75 yards	150–300 yards	Over 600 yards
⅜″ Fireproof plaster board	per yard super	2/2	1/10	1/6
¼″ Ditto	per yard super	2/–	1/8	1/4
Joint tape (approx. 250 feet run)	per roll	..	..	1/6
Joint filler	per lb.	..	..	–/4

Plywoods :—

	4 m/m	5 m/m	6 m/m	9 m/m	12½m/m
Birch (A) per square	22/–	26/6	30/–	42/6	45/–
„ (B) per square	18/–	19/–	—	—	—
Japanese figured oak (A.A.) per square	33/6	37/–	38/6	65/–	—
Austrian oak, figured one side (A.A.) per square	—	71/6	77/6	99/6	117/6
Australian walnut, finely figured one side (boards 72″ × 36″) per square			¼″ 67/6	¼″ 85/–	
Sycamore, figured one side (ditto) per square			75/–	85/–	
Honduras mahogany, figured one side (ditto) per square			75/–	—	
Honduras mahogany, finely figured (boards 84″ × 36″) per square			125/–	—	

Prices are for complete bundles.

Blockboards :—

Alder :—

Thickness		Boards 60″ × 183″	Boards 72″ × 183″
½″	per square	67/–	73/6
⅝″	per square	76/–	83/6
¾″	per square	83/3	91/3
⅞″	per square	87/3	96/3
1″	per square	100/6	110/6
1¼″	per square	122/–	134/–
1½″	per square	128/–	140/–
1¾″	per square	160/9	169/9

Birch :—

Thickness		Boards 54″ × 72″	Boards 60″ × 140″
½″	per square	50/3	52/9
⅝″	per square	57/3	60/3
¾″	per square	63/3	67/–
⅞″	per square	68/–	71/3
1″	per square	75/–	77/9

Prices are for complete bundles.

Hardwoods

Joinery Quality.

English oak	per foot cube	15/–
American oak (plain)	per foot cube	10/–
„ „ (quartered)	per foot cube	12/–
Australian Silky Oak (plain)	per foot cube	11/–
„ „ „ (quartered)	per foot cube	12/6
Walnut, European	per foot cube	18/–
Teak, Rangoon	per foot cube	15/–
„ African	per foot cube	12/–

JOINER—(*continued*)

Mahogany, Honduras	per foot cube	14/–
American whitewood	per foot cube	10/–
Birch	per foot cube	8/–
Cedar (aromatic)	per foot cube	16/–
Japanese oak (plain)	per foot cube	11/–
„ „ (quartered)	per foot cube	13/–
Austrian oak (plain)	per foot cube	12/–
„ „ (quartered)	per foot cube	16/–

Sundries

Slaters or sarking felt	per yard run	–/6
Roofing felt	per yard run	–/8
Bituminous hair felt	per roll	33/–

All rolls 25 yards long by 32″ wide.

Cork slabs, 1″ thick (3′ 0″ × 1′ 0″)	per foot super	–/4½
„ 2″ thick (3′ 0″ × 1′ 0″)	per foot super	–/8
Slagwool	per cwt. (approx.)	12/–
Building paper in rolls of 100 yards, 1-ply, 60″ wide (B.I.80 and L.G.I.80)	per roll	67/6
Ditto, 2-ply, 60″ wide (B.I.80)	per roll	135/–
Ditto, 2-ply, 60″ wide (B.I.20)	per roll	202/6

"Cabots" Quilt :—(Ex Works Twelve roll lots delivered carr. free.)

Double ply	per roll 42/–	per half roll	23/6

All rolls 28 yards long by 36″ wide. Special terms for quantities.

Cut steel clasp nails, 1″ per cwt.	33/6	4″	per cwt.	23/6
„ „ floor brads, 2″ „	22/9	3″	per cwt.	21/9
*Bright oval wire nails 1″ „	35/6	4″	per cwt.	23/6
Scotch glue			per cwt.	60/–

Floor Clips :—

		£ s. d.
One leg floor clip	per 1,000	8 8 0
2″ short leg floor clip	per 1,000	8 8 0
2″ Regular floor clip	per 1,000	8 15 0
3″ „ „	per 1,000	9 0 0
2″ Regular ceiling clip	per 1,000	8 15 0
Single leg ceiling clip (7½″)	per 1,000	10 10 0

Special terms for quantities.

STEEL AND IRONWORKER

Steelwork

		£ s. d.
Basis price for rolled steel joists sections 5″ × 3″ to 16″ × 6″, in 10 ft. to 50 ft. lengths	per ton	13 0 0
Extras on above for :—		
9″ × 7″ Section	per ton	0 5 0
4″ × 3″, 5″ × 2½″, 10″ × 8″, 12″ × 8″, 14″ × 8″ and 16″ × 8″ to 20″ × 7½″ sections inclusive	per ton	0 10 0
3″ × 1½″, 3″ × 3″, 4″ × 1½″, 4½″ × 1½″ and 24″ × 7½″ sections	per ton	1 0 0
Channels, angles and tees	per ton	14 0 0
Mild steel plates	per ton	14 0 0
Screw bolts	per ton	35 0 0

Fabricated Steelwork

		£ s. d.
Joists cut and fitted	per ton	17 0 0
Stanchions, ordinary sections with riveted caps and bases	per ton	20 0 0
Stanchions, compound	per ton	23 0 0
Plate girders	per ton	25 0 0
Framed roof trusses, 25′ 0″ span	per ton	25 0 0
„ „ „ 60′ 0″ span	per ton	23 0 0

Prices ex stock are higher, and definite quotations should be obtained.

Prime Galvanized Corrugated Iron Sheets

(Ex London Stocks)

	10 cwt. lots £ s. d.	Less quantity £ s. d.
4 to 9 fts. 18 or 20 gauge, 8/3″ corrugations per ton	20 0 0	21 0 0
10 fts. 18 or 20 gauge, 8/3″ corrugations	20 10 0	21 10 0
4 to 9 fts. 22 or 24 gauge, 8/3″ corrugations per ton	20 10 0	21 10 0
10 fts. 22 or 24 gauge, 8/3″ corrugations	21 0 0	22 0 0
4 to 8 fts. 26 gauge, 8/3″ corrugations	21 15 0	22 15 0
9 fts. 26 gauge, 8/3″ corrugations	22 5 0	23 5 0
10 fts. 26 gauge, 8/3″ corrugations	22 15 0	23 15 0

* Items marked thus have fallen in price since July 28.

CURRENT PRICES

BY DAVIS AND BELFIELD, P.A.S.I.

PLASTERER, PLUMBER AND INTERNAL PLUMBER

PLASTERER

Plaster and Cement

		1-ton loads	5-ton loads	
Sirapite (coarse)	per ton	70/–	64/–	
„ (fine)	per ton	78/–	—	
Victorite No. 1	per ton	85/–	78/6	6-ton loads
„ No. 2 or non sweat	per ton	80/–	73/6	
Thistle (browning, haired and pink finish)	per ton	70/–	64/–	
Thistle (fine)	per ton	78/–	—	
Pink plaster	per ton	66/–	—	
White plaster	per ton	78/–	—	
Keene's pink	per ton	112/6	—	
Keene's white	per ton	117/6	—	
Super Carbo	per ton	—	47/6	4-ton loads
Carbo-setting	per ton	—	57/6	

1 ton upwards

		£	s.	d.
Cullamix No. 2 cream (rendering mixture) ..	per ton	5	10	0
„ No. 3 cream „ „ ..	per ton	5	10	0
Snowcrete mixture „ „ ..	per ton	5	5	0

Sundries

● Sharp washed sand	per yard cube	8/9
Cow hair	per cwt.	40/–
Goat's hair	per cwt.	55/–
⅜″ laths	per bundle	2/–
½″ laths	per bundle	2/4½
Expanded metal lathing, 9′ 0″ × 2′ 0″ ¾″ mesh × 26 gauge	per yard super	–/11
● Lath nails (galvanised) 1½″ × 14 gauge	per cwt.	48/6
„ (bright wire) „ „	per cwt.	27/–

		Less than 150 yds.	Less than 300 yds.	Over 300 yds.
¾″ Plaster board ..	per yard super	1/–	–/11	–/10
1½″ Galvanized nails ..	per lb.	–/5		
Serim cloth in 100-yard rolls	per roll	2/3		

Wall Tiles

Commercial quality.		
Ivory, white, etc., glazed 6″ × 6″ × ¼″ ..	per yard super	9/9
Angle beads (1½″ wide)	per yard run	1/2½
„ „ (1″ „)	per yard run	–/10
Rounded edge tiles	per yard run	2/6½
Coloured enamelled bright glazed, 6″ × 6″ × ¼″	per yard super	14/3
Angle beads (1½″ wide)	per yard run	1/4½
„ „ (1″ „)	per yard run	–/11½
Rounded edge tiles	per yard run	2/7
Eggshell gloss enamelled, 6″ × 6″ × ¼″ ..	per yard super	15/–
Angle beads (1½″ wide)	per yard run	1/7½
„ „ (1″ „)	per yard run	1/0½
Rounded edge tiles	per yard run	2/8½

PLUMBER

Lead

✱3½ lbs. and upwards milled sheet lead in quantities of 5 cwts. and upwards	per cwt.	22/6
Add if cut to sizes	per cwt.	3/–
Lead ternary alloy, No. 2 quality extra over sheet lead	per cwt.	7/–
✱Allowance for old lead delivered to merchant	per cwt.	12/–

Cast Iron Rainwater Goods (Painted or Unpainted)

The following prices for rainwater pipes and gutters are subject to 20 per cent. trade discount, and the prices of the fittings are subject to 5 per cent. and 20 per cent. trade discount.

Rainwater Pipes

	2″	2½″	3″	3½″	4″	4½″	5″	6″
Round pipes per yard	2/8½	2/9½	3/7½	4/0½	4/9½	6/1½	7/2½	9/2
Shorts, 2′ 0″, 3′ 0″ and 4′ 0″ extra per yard	–/3½	–/3½	–/3½	–/3½	–/3½	–/5	–/5	–/5
Bends .. .. each	1/9	2/–	2/6	3/–	3/7	5/–	6/6	8/5
Offsets 4½″ and 6″ projection .. each	2/2	2/8	3/–	3/5	4/4	6/3	7/6	9/10
Offsets, 9″ projection each	2/10	3/2	3/9	4/8	5/7	7/6	8/10	11/2
Branches, single each	2/7	3/1	3/9	4/4	5/3	7/6	8/5	13/1
Shoes .. .. each	1/6	1/9	2/–	2/8	3/–	4/4	5/5	7/6

● Items marked thus have risen since July 28.

PLUMBER—(*continued*)

Square and rectangular pipes.

3″ × 3″	per yard	6/9½
3½″ × 3½″	per yard	8/4
4″ × 2″ or 2½″	per yard	7/4½
4″ × 3″	per yard	7/4½
4″ × 4″	per yard	9/0½
4½″ × 3″	per yard	8/5½
5″ × 3″ or 3½″	per yard	9/7

Gutters

	3″	3½″	4″	4½″	5″	6″
Half round gutters per yard	1/9½	2/1	2/1	2/2½	2/4½	3/7½
Shorts 2′ 0″, 3′ 0″ and 4′ 0″ extra per yard	–/2½	–/2½	–/2½	–/2½	–/3½	–/3½
Angles and nozzle pieces each	1/5	1/7	1/9	2/–	2/2	3/1
Stop ends .. .. each	–/5	–/5	–/7½	–/9	–/10½	1/–
Ogee gutters per yard	2/1	2/3½	2/4½	2/6	2/9½	3/10½
Straight back and shorts 2′ 0″, 3′ 0″ and 4′ 0″ extra .. per yard	–/2½	–/2½	–/2½	–/2½	–/3½	–/3½
Angles and nozzle pieces each	1/11	1/11	2/–	2/4	2/8	3/3
Stop ends .. .. each	–/6	–/7½	–/9	–/10½	1/–	1/3

Mild Steel Rainwater Goods

The following prices are subject to 7½ per cent. trade discount.

24 Gauge rainwater slip jointed pipes.

	2″	2½″	3″	3½″	4″
Galvanized round pipes with ears per 6′ 0″	2/7½	3/1½	3/9	4/3	4/9
Painted round pipes with ears per 6′ 0″	2/7½	3/–	3/4½	3/10½	4/3
Painted or galvanized short lengths with ears, extra each	–/6	–/6	–/6	–/6	–/6

18 Gauge Gutters.

	3″	3½″	4″	4½″	5″	6″
Galvanized half round gutters .. per 6′ 0″	2/–	2/3	2/4½	2/9	3/–	3/7½
Painted half round gutters per 6′ 0″	1/6	1/9	2/–	2/3	2/6	3/–
Painted or galvanized short lengths extra each	–/3	–/3	–/3	–/3	–/3	–/3

Asbestos-Cement Rainwater Goods

The following prices are subject to 10 per cent. trade discount.

Rainwater pipes.

Prices are for 6′ 0″ lengths, and 10′ 0″ lengths in 2″, 2½″ and 3″ diameters. Short lengths up to 2′ 0″ are charged as one yard. From 2′ 0″ to 4′ 0″ charged as 1½ yards. From 4′ 0″ to 6′ 0″ charged as 2 yards. Over 6′ 0″ charged as 10′ 0″.

Round pipes.

2″	.. per yard run	1/10
2½″	.. per yard run	2/0½
3″	.. per yard run	2/5½
3½″	.. per yard run	2/11½
4″	.. per yard run	3/4½
4½″	.. per yard run	4/10½
5″	.. per yard run	5/9½
6″	.. per yard run	7/1½

Gutters.

Short lengths of gutter up to 2′ 0″ charged as 1 yard; from 2′ 0″ to 4′ 0″ as 1½ yards, and over 4′ 0″ as 2 yards.

	3″	4″	4½″	5″	6″	8″
Half round gutters per yard run	1/3½	1/6½	1/7½	1/11	2/8	3/3½
Ogee gutters per yard run	—	1/11	2/0½	2/5½	3/0½	3/11½

INTERNAL PLUMBER

✱Lead pipe in coils, 5 cwts. and upwards	per cwt.	22/–
✱Lead soil pipe	per cwt.	25/–
Add if ribbon marked	per cwt.	–/3
Lead ternary alloy, No. 2 quality extra over lead pipe	per cwt.	7/–
Plumber's solder	per cwt.	85/–
Tinman's solder	per cwt.	111/–

Drawn lead traps with brass screw eye, 6 lbs.

		1″	1¼″	1½″	2″
S. trap	each	1/7	1/9	2/2	3/2
P. trap	each	1/4	1/6	1/10	2/7
Extra for 3″ deep seal	each	–/6	–/6	–/6	–/6

✱ Items marked thus have fallen since July 28.

CURRENT PRICES

INTERNAL PLUMBER

BY DAVIS AND BELFIELD, P.A.S.I.

INTERNAL PLUMBER—(*continued*)

Screwed and Socketed Steel Tubes and Fittings for Gas, Water and Steam, etc.

		½″	¾″	1″	1¼″	1½″	2″
Tubes.							
Tubes 2 ft. long and over	per ft.	–/5½	–/6¾	–/9½	1/1	1/4½	1/10
Pieces 12″ to 23½″ long	each	1/1	1/5	1/11	2/8	3/4	4/9
Bends	each	–/11	1/2	1/7½	2/7½	3/2	5/2
Fittings.							
Elbows, square ..	each	1/1	1/3	1/6	2/2	2/7	4/3
Elbows, round ..	each	1/2	1/5	1/8	2/4	2/10	4/8
Tees	each	1/3	1/7	1/10	2/6	3/1	5/1
Crosses	each	2/9	3/3	4/1	5/6	6/7	10/6
Sockets, plain ..	each	–/4	–/5	–/6	–/8	–/10½	1/3
Sockets, diminished	each	–/6	–/7	–/9	1/–	1/4	2/–
Flanges	each	1/–	1/2	1/4	1/9	2/–	2/9
Caps	each	–/5	–/6	–/8	1/–	1/3	2/–
Plugs	each	–/4	–/5	–/6	–/8	–/10	1/3

Fittings and flanges and tubes ordered in long random lengths are subject to the following trade discounts :—

	Tubes	Fittings	Flanges
Gas	62½%	53¼%	57½%
Water	58¾%	50%	52½%
Steam	56¼%	46¼%	47½%
Galvanized gas	53¾%	46¼%	47½%
,, water	48¾%	42¼%	42½%
,, steam	43¾%	38¾%	37½%

Brasswork. Best Quality

		½″	¾″	1″
Chromium plated screw-down bibcocks, screwed for iron ..	per dozen	34/6	56/3	99/–
Ditto, with screw ferrule ..	per dozen	43/–	67/3	105/6
Ditto, with capstan head lettered, screwed for iron ..	per dozen	40/6	62/3	108/–
Ditto, with screw ferrule ..	per dozen	49/–	73/3	124/6

		Brass Screwdown Stop Cocks with Unions both Ends	Brass Screwdown Stop Cocks with Screwed Ends	Brass Screwdown Stop Cocks with Male Screwed End and Iron Unions
½″	per dozen	37/6	43/–	35/–
¾″	per dozen	59/–	65/–	54/–
1″	per dozen	90/–	97/6	84/–
1¼″	each	12/9	13/6	12/–
1½″	each	20/6	21/6	19/–
2″	each	39/9	41/3	37/6

	½″	¾″	1″
Portsmouth pattern ball valve for low pressure, screwed for iron .. each	3/7	5/5	11/3
Ditto, with flynut and union .. each	4/3	6/3	12/9
High pressure ditto, screwed for iron each	3/7	5/5	11/3
Ditto, with flynut and union .. each	4/3	6/3	12/9

	2″	2½″	3″	4″
Socket thimble sloping shoulder per dozen	10/–	13/–	15/9	22/3
	1½″	2″	2½″	3″
Flanged ferrule thimble per dozen	7/9	9/–	13/6	16/–

	½″	¾″	1″	1¼″	1½″	2″
Union joints for lead and iron .. per dozen	7/6	10/3	14/–	26/–	42/6	92/–
Single nut short boiler screws .. per dozen	6/–	9/–	14/3	21/–	33/–	60/–
Double nut boiler screws per dozen	8/3	9/9	15/–	22/6	43/6	69/–

Belfast sink wastes stamped brass with brass plug diameter of outlet 2″ .. .. per dozen 18/–

Galvanized Mild Steel Open Top Cisterns riveted with internal angle iron at top and corner plates

The following prices are subject to 15% and 20% trade discount :—

	14-gauge £ s. d.	12-gauge £ s. d.	¼″ plate £ s. d.	5/16″ plate £ s. d.
50 gallon capacity each	2 5 11	2 14 5	3 1 7	7 0 8
100 ,, each	3 8 9	4 2 11	4 16 9	9 10 8
200 ,, each	6 6 9	6 19 5	7 18 3	13 1 0
500 ,, each	12 6 0	13 16 1	15 16 3	22 6 9
1,000 ,, each	—	21 9 4	24 19 5	34 15 4

INTERNAL PLUMBER—(*continued*)

Galvanized Hot Water Tanks, fitted with handhole cover.

The following prices are subject to 15% and 20% trade discount :—

Capacity	16-gauge tested to a pressure of 1 lb. per sq. inch = 1½ ft. head of water £ s. d.	14-gauge tested to a pressure of 3 lbs. per sq. inch = 4½ ft. head of water £ s. d.	12-gauge tested to a pressure of 7½ lbs. per sq. inch = 10 ft. head of water £ s. d.	¼″ plate tested to a pressure of 10 lbs. per sq. inch = 15 ft. head of water £ s. d.
20 gallons each	2 0 3	2 3 11	2 7 8	2 12 9
40 ,, each		3 1 7	3 9 0	3 16 8
		Tested to a pressure of 5 lbs. per sq. inch = 7½ ft. head of water		Tested to a pressure of 7½ lbs. per sq. inch = 10 ft. head of water
60 ,, each		4 19 3		5 5 5
80 ,, each				7 5 7
100 ,, each				8 4 5

Screwed flanges or bosses

½″	¾″	1″	1¼″	1½″	1¾″	2″	2½″	
1/8	2/–	2/4	2/11	3/4	3/9	4/8	6/9	Extra per flange or boss.
2½″	3″	3½″	4″	4½″	5″	6″		
8/4	14/3	16/9	19/3	26/11	30/1	45/1		

Galvanized Hot Water Cylinders, Mild Steel Riveted throughout, without Manhole, with usual number of flanges

The following prices are subject to 15% and 20% trade discount :—

Capacity	16-gauge tested to 5 lbs. pressure = 10 ft. head of water £ s. d.	14-gauge tested to 15 lbs. pressure = 30 ft. head of water £ s. d.	12-gauge tested to 20 lbs. pressure = 40 ft. head of water £ s. d.	¼″ plate tested to 25 lbs. pressure = 50 ft. head of water £ s. d.
20 gallons each	1 18 7	2 2 8	2 8 4	2 15 4
40 ,, each	2 10 11	2 16 8	3 6 1	3 15 0
65 ,, each		4 8 7	5 1 8	5 16 1
75 ,, each		5 1 7	5 15 0	6 11 4
85 ,, each			6 10 8	7 11 9
100 ,, each				8 2 5

Cast Iron Soil Pipes and Connections, L.C.C. 1/16″ metal.

The following prices for soil pipes are subject to 20% Trade Discount, and the prices of the fittings are subject to 20% and 5% Trade Discount.

	2″	2½″	3″	3½″	4″	5″ ¼″ metal	6″ ¼″ metal
Minimum weights in lbs. per 6′ 0″ length	24	30	35	41	46	78	92
Pipes coated or uncoated per yard run	3/10½	4/0½	4/5½	5/–	5/8½	11/8	14/0½
Double sockets extra each	–/11¼	–/11¼	–/11¼	–/11¼	–/11¼	1/0½	1/0½
Short lengths extra 2′, 3′ and 4′ per yard run	–/3½	–/3½	–/3½	–/3½	–/3½	–/5	–/5
Single spigot branch cast on pipe .. .. each	4/8	4/5	4/7	4/9	4/11	7/6	9/8
Single socket branch cast on pipe .. .. each	10/9	11/–	11/3	11/6	11/9	16/–	19/–
Bends, standard angles each	3/1	3/5	3/9	4/8	5/3	9/4	12/9
Large radius bends each	4/–	4/4	5/–	6/–	7/–	13/–	16/9
Inspection bends raised flange door, 4 gunmetal bolts .. .. each	16/1	16/11	17/9	18/8	19/3	31/10	36/6
Swannecks 4½″ and 6″ projection .. .. each	3/9	4/4	5/11	6/10	7/11	14/11	20/1
9″ ditto .. .. each	5/–	5/7	6/10	7/11	9/4	17/1	22/10
12″ ditto .. .. each	5/11	6/10	7/11	9/8	10/7	19/1	27/1
Single branch with two sockets. T. pieces. T. pieces diminishing two sockets, inverted two sockets.	3/9	4/8	5/7	6/6 each	7/6	15/10	21/8
Parallel branch pieces not exceeding 6″ centres. Y pieces. Anti-syphon branches with curved arm.	4/10	5/11	6/10	7/11 each	8/11	—	—
Double branch pieces, three sockets .. .. each	5/11	7/–	7/11	9/–	10/3	20/3	27/3
Inspection branch pieces double oval access door, 2 gunmetal screws each	12/11	14/–	14/11	16/6	17/9	29/2	36/2
Long branch pieces each	5/–	6/–	7/3	8/6	9/9	19/–	25/–

CURRENT PRICES

BY DAVIS AND BELFIELD, P.A.S.I.

COPPERSMITH AND ZINCWORKER, GLAZIER AND PAINTER

COPPERSMITH AND ZINC WORKER

Copper

Hot rolled copper sheeting in 1 cwt. lots, all gauges to 24 wire gauge .. .. per lb.	-/9½
● Copper tube, seamless solid drawn .. .. per lb.	1/0½
Copper wire, 10 and 12 gauge .. .. .. per lb.	-/9½
● Copper nails, 1" and up .. .. per lb.	-/10½

Fittings for Copper Tubes

Compression Type:	½"	¾"	1"	1¼"	1½"	2"	2½"
Straight coupling each	1/1½	1/4½	2/0½	2/8	3/9½	5/7½	14/-
Obtuse elbow each	1/10½	2/2½	3/3	4/1½	7/1½	10/5½	—
Tees .. each	2/1½	2/5½	4/-	5/9½	9/3	13/1½	19/3½
Crosses .. each	3/-	3/4½	5/2½	6/3½	10/11½	15/3	26/4½
Reducing coupling each	—	1/4½	2/0½	2/8	3/9½	5/7½	14/-
Bends .. each	1/7½	1/11½	2/11	3/8½	6/7½	9/10½	14/1
Brass stop cocks each	3/11½	5/10½	8/7½	15/11½	22/3½	37/8½	—

Extra for Polishing 25%; Chromium plating 50%; Nickel plating and polishing 50%.

Capillary Type							
Straight coupling each	-/7½	-/10½	1/3½	1/8½	2/3½	3/4½	5/9
45° elbow .. each	1/3½	1/8½	2/4½	3/2	4/9	7/1½	11/1
Tees .. each	1/5½	1/7½	2/8	3/11½	5/7½	8/3½	12/8
Crosses .. each	1/10½	2/0½	3/4½	4/9	7/2½	10/6	18/2½
Reducing coupling each	—	-/6½	-/8½	1/0½	1/7	2/9½	4/4½
Bends .. each	1/7	1/11	2/9½	3/9½	5/11½	8/3½	11/10½
Pillar tap connection .. each	1/-	1/5½					

Extras for Polishing 15%; Chromium plating 40%; Nickel plating 27½%.

Zinc

	Quantities of less than 3 cwts.	Quantities of more than 3 cwts.	Quantities of more than 5 cwts.
Sheet zinc, 10 gauge and up per cwt.	33/-	32/-	32/-

	5 sheets and under	12 sheets
8 gauge zinc safe hole perforated sheets, size 8′ 0″ × 3′ 0″ .. per sheet	4/9½	4/0½
7 gauge ditto .. .. per sheet	4/2¾	3/7
6 gauge ditto .. .. per sheet	3/9½	3/3

GLAZIER

Sheet Glass cut to size (ordinary glazing quality)

	In squares not exceeding 2 ft.	4 ft.	5 ft.	Over 6 ft.
18 oz. clear sheet .. .. per foot super	-/2¼	-/2¾	-/3	-/3¼
24 oz. ditto .. .. per foot super	-/2¾	-/3¾	-/4	-/4⅜
32 oz. ditto .. .. per foot super	-/4	-/5⅛	-/6⅞	-/7⅞
Obscured sheet glass net extra	-/1½	-/1½	-/1½	-/1½
⅛" figured rolled glass, white per foot super	-/6½			
⅛" ditto, normal tints .. per foot super	-/9½			
Hammered, doubled rolled, Cathedral white .. .. .. per foot super	-/6			
Ditto, normal tints .. per foot super	-/8½			

Thick Drawn Sheet Glass cut to size

	In squares not exceeding 1 ft.	2 ft.	3 ft.	4 ft.	6 ft.	8 ft.
1/16" thick .. per foot super	-/9	-/11	1/-	1/2	1/3	1/4
⅛" thick .. per foot super	-/11	1/-	1/3	1/5	1/7	1/9

	In squares not exceeding 12 ft.	20 ft.	45 ft.	65 ft.	90 ft.	100 ft.
1/16" thick .. per foot super	1/6	1/7	1/9	—	—	—
⅛" thick .. per foot super	1/10	2/2	2/4	2/8	3/-	3/-

For selected glazing quality add 10 per cent. to the above prices.

British or Foreign Polished Plate Glass cut to size

Ordinary ⅛" Substance In Plates not exceeding	Glazing for Glazing Purposes	Selected Glazing Quality	Silvering Quality
1 ft. super .. per foot super	1/-	1/3	1/7
2 „ .. per foot super	1/4	1/6	1/10
3 „ .. per foot super	1/10	2/1	2/6
4 „ .. per foot super	2/6	2/9	3/2
6 „ .. per foot super	2/10	3/-	3/6
8 „ .. per foot super	2/11	3/4	3/8
12 „ .. per foot super	3/1	3/8	3/11
20 „ .. per foot super	3/1	3/9	4/1
45 „ .. per foot super	3/8	4/-	4/4
65 „ .. per foot super	3/7	4/3	4/11

● Items marked thus have risen since July 28.

GLAZIER—(*continued*)

British or Foreign Polished Plate Glass cut to size—(contd.)

Ordinary ⅛" Substance In Plates not exceeding	Glazing for Glazing Purposes	Selected Glazing Quality	Silvering Quality
90 ft. super .. per foot super	3/11	4/8	5/1
100 „ .. per foot super	4/-	4/10	5/4

Plates exceeding 100 ft. super or 160 in. long, or 104 in. wide, at higher prices.

The usual thickness of polished plate glass is about ⅛", but if required of special thickness for glazing purposes, add to the above for :—

	Plates up to and including 4 ft. super	All plates over 4 ft. super
1/16" to 3/32" .. .. per foot super	-/2	-/4
1/16" to 3/16" exact .. per foot super	-/2	-/3
3/16" .. .. .. per foot super	No extra	-/1½
¼" bare .. .. per foot super	„	-/1½
¼" exact .. .. per foot super	-/2	-/2
5/16" to ⅜" .. .. per foot super	No extra	-/4½
⅜" exact .. .. per foot super	-/2	-/6

Special quotations should be obtained for other qualities and thicker substances.

Silvering

	Ordinary Quality on Polished Plate, Thick Drawn Sheet, Patent Sheet and Plain Sheet	On Embossed or Decorative Work
12 ft. super or 90 in. long .. per ft. super	9d.	1/4
20 ft. „ or 100 in. long per ft. super	10d.	1/4
45 ft. super } or 110 in. long per ft. super	1/-	1/5
50 ft. „ }	1/0½	1/6
55 ft. „ } or 120 in. long per ft. super	1/1	1/6½
60 ft. „ }	1/1½	1/7
65 ft. „ } or 130 in. long per ft. super	1/2	1/8
70 ft. „ }	1/3	1/9½
75 ft. „ } or 140 in. long per ft. super	1/4	1/11
80 ft. „ }	1/5	2/0½
85 ft. „ } or 150 in. long per ft. super	1/8	2/5
90 ft. „ }	1/11	2/9½
95 ft. „ } or 160 in. long per ft. super	2/2	3/2
100 ft. „ }	2/5	3/8

For silvering on fluted sheet, figured rolled and cathedral, add 4d. a foot to the prices set out in the first column for polished plate, etc.

Silvering bent glass, double or more, according to bend.

For plates over 100 ft. super, add 3d. per ft. super for every 5 ft. or part of same.

Plates over 160 in. long at special rates.

Stripping for re-silvering, add 8d. per ft. super.

Wired Glass Cut to Sizes

¼-in. Georgian rough cast .. .. .. per ft. super	10d.			
	In squares not exceeding 1 ft.	2 ft.	3 ft.	4 ft.
¼-in. Georgian polished plate per ft. super	2/6	2/8	2/10	3/2
	8 ft.	12 ft.	20 ft.	30 ft.
¼-in. Georgian polished plate per ft. super	3/8	3/10	4/2	4/6

Supplied in sizes up to 110 in. long and up to 36 in. wide.

For cutting to allow for wires in adjacent pieces to be "lined up," add 4d. per foot super.

PAINTER

* White ceiling distemper .. .. .. per cwt.	11/6	
Washable distemper .. .. per cwt.	60/-	
Petrifying liquid .. .. per gallon	4/6	
Ready mixed white lead paint (best) 5-cwt. lots, in 14 lb. tins .. .. per cwt.	68/-	
White enamel .. .. per gallon	25/-	
Aluminium paint .. .. per gallon	20/-	
Stiff white lead, genuine English stack process, 1-ton lots, in 1-cwt. kegs .. .. per cwt.	48/3	
Driers .. .. per cwt.	36/-	
Linseed oil raw (5-gallon drums) .. .. per gallon	3/-	
„ boiled „ „ .. .. per gallon	3/3	
French polish .. .. per gallon	11/6	
Knotting .. .. per gallon	16/-	
Oil stain .. .. per gallon	12/-	
Varnish, oak .. .. per gallon	10/-	
„ copal .. .. per gallon	16/-	
„ flat .. .. per gallon	20/-	
● Turpentine, genuine American 5-gallon lots per gallon	3/2	
Creosote, 1-gallon lots .. .. per gallon	1/4	
● Putty .. .. per cwt.	13/-	
Size .. .. per firkin	3/6	
Best English quality goid leaf, 23 carat .. per book	2/4½	
Extra thick, ditto .. .. per book	3/6	

* Items marked thus have fallen since July 28.