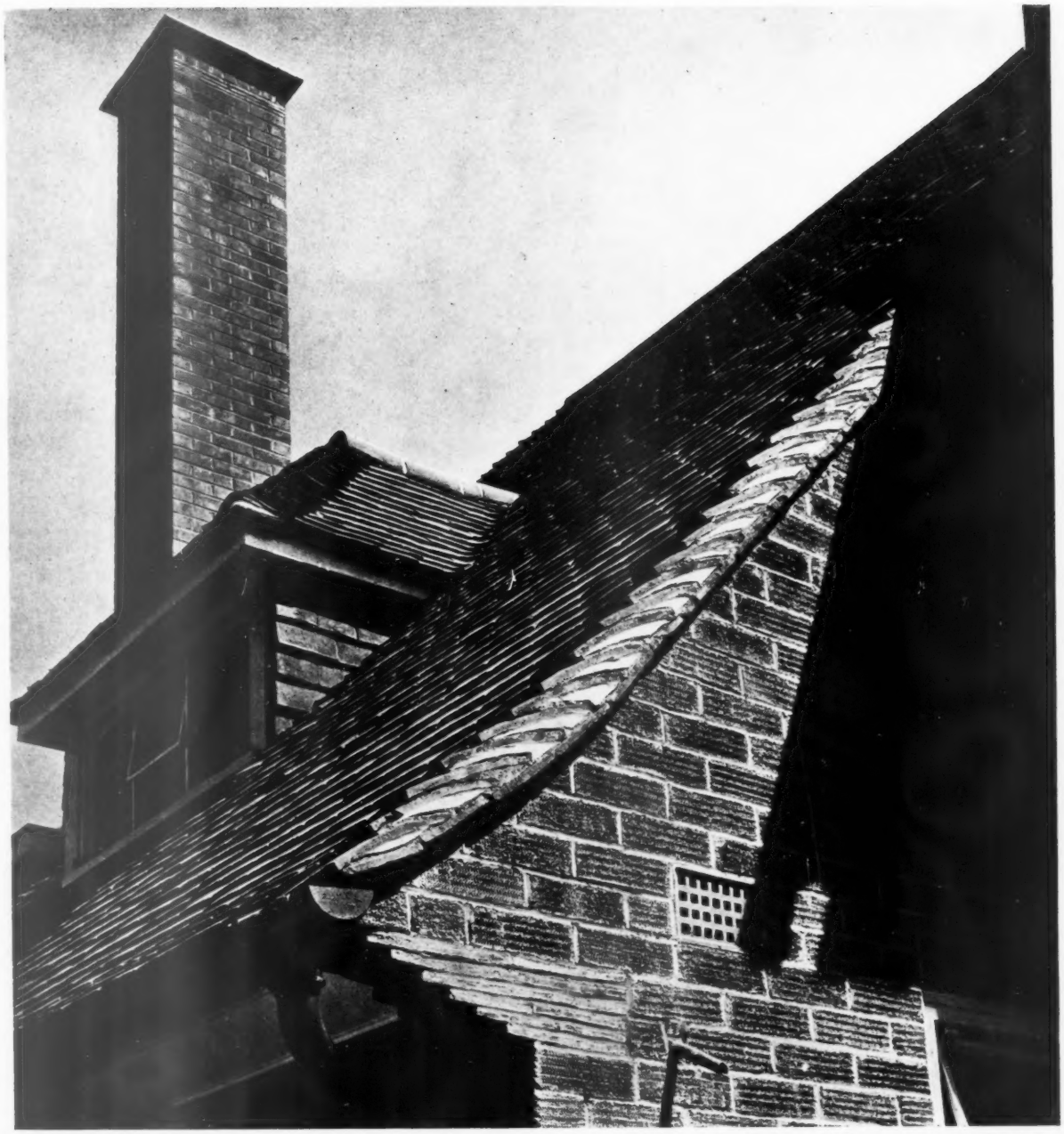

House at Knaphill, Woking, Surrey. Architect: F. J. Hodgson, L. R. I. B. A., A. I. Struct. E. Builder: H. Punter, Seale, Nr. Farnham.

THE ARCHITECTS' JOURNAL

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

THURSDAY, AUGUST 3, 1939. NUMBER 2324 : VOLUME 90

PRINCIPAL CONTENTS

PAGE

The Consett Competition .. .. 161 & 162

This Week's Leading Article 163

Notes and Topics 164
Astragal's notes on current events

News 166

The Architects' Diary 166

Hospital at Chichester. By C. G. Stillman 168

Working Details 173
Stage Lighting, New Casino, Blackpool (Joseph Emberton : Associated Architect, Halstead Best)

Information Sheets 175
Structural Steelwork (751)
A. R. P. (752)

Books 181

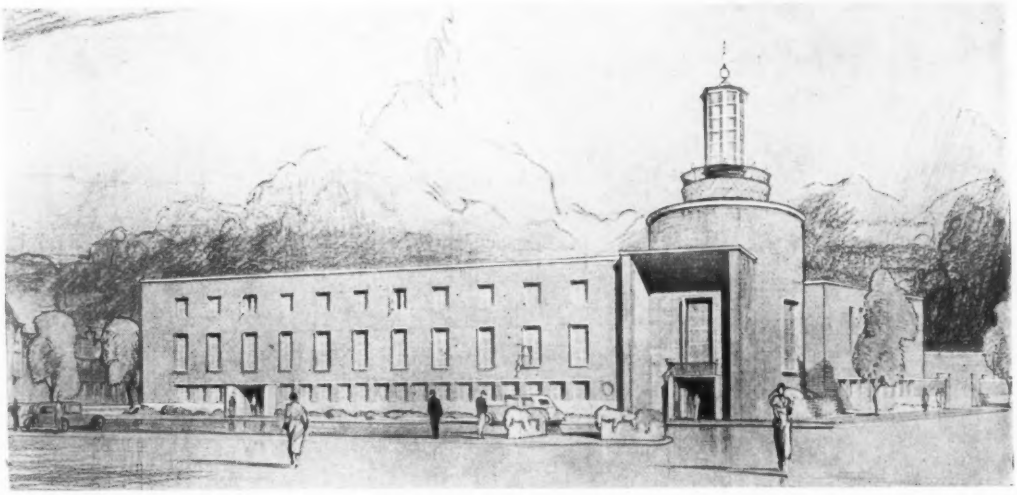
Motor Service Station, Liverpool. By Richard Nickson. Associated Architect, Alfredo Martinez 182

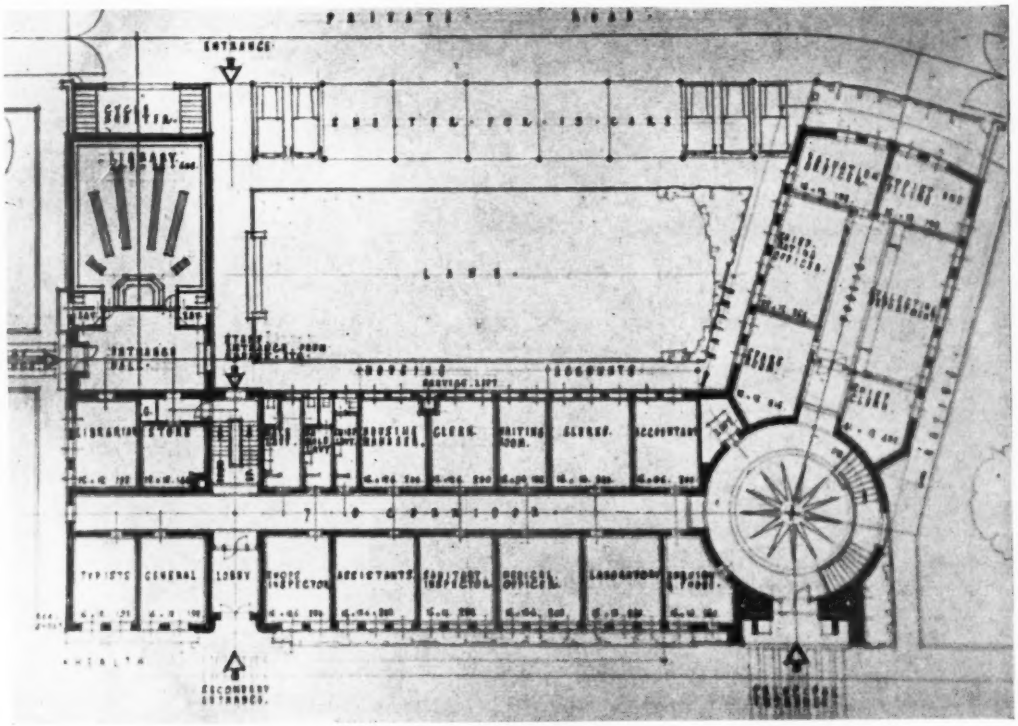
Trade Notes 186
By Philip Scholberg

Current Prices of Materials—Part I 188

COMPETITION FOR COUNCIL OFFICES, CONSETT

WINNING DESIGN: BY LYONS, ISRAEL AND ELSOM





GROUND FLOOR PLAN

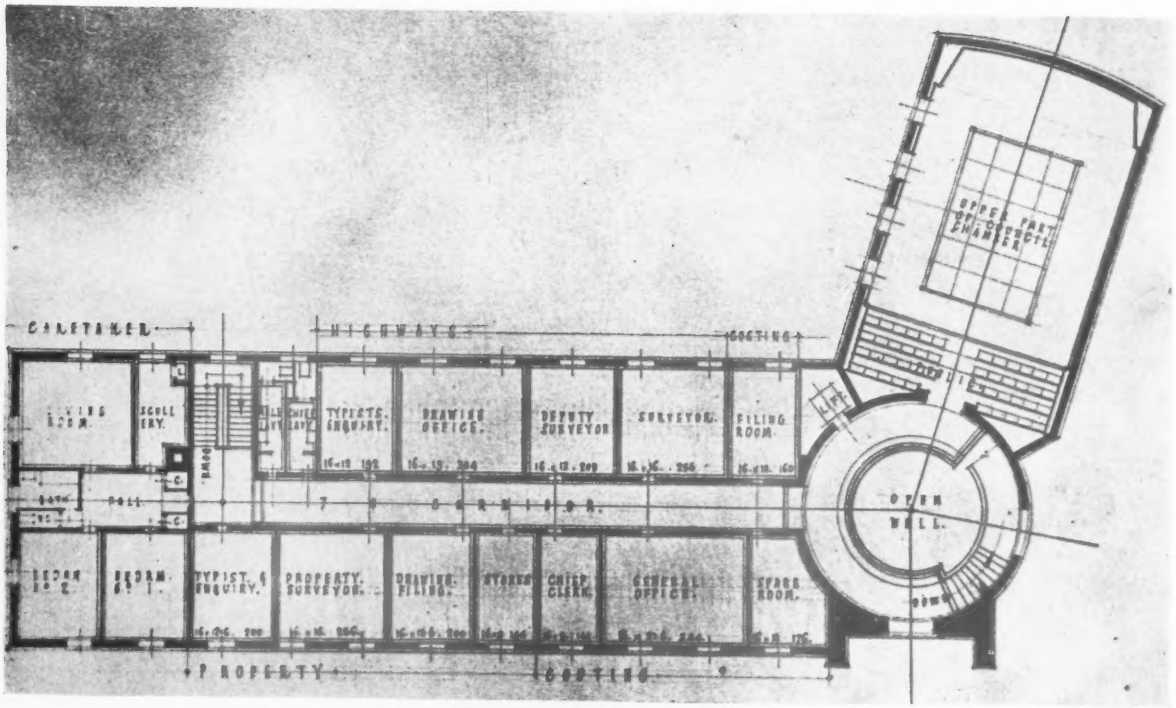
Mr. R. Norman Mackellar, F.R.I.B.A., the assessor of the competition for new Council Offices to be erected on a site in Market Square, Consett, Co. Durham, has made his award as follows :

Design placed first (£150) : Messrs. Lyons, Israel and Elsom, of London.

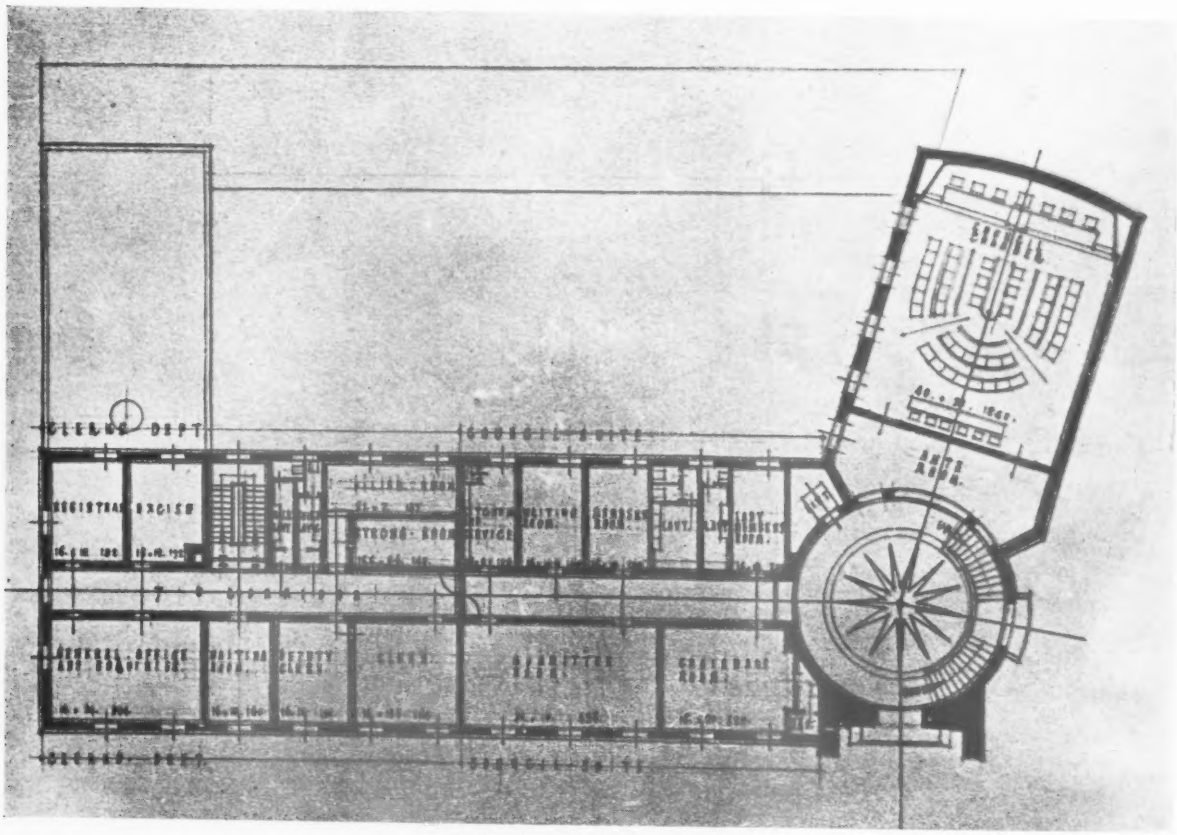
Design placed second (£100) : Messrs. P. J. Westwood and Sons, of London.

Design placed third (£75) : Messrs. F. W. Liddle and Batchelor, of Newcastle-upon-Tyne.

Ninety-six designs were submitted. The winning design is reproduced on this and the following page.

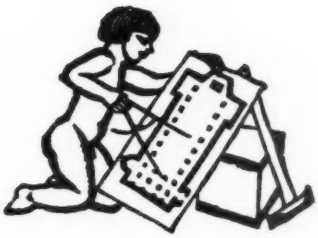


SECOND FLOOR PLAN



FIRST FLOOR PLAN

The winning design, by Messrs. Lyons, Israel and Elsom, in the competition for Council Offices, Consett, Co. Durham. The full award of the assessor is given overleaf. Above, first and second floor plans.



THEY LIKE THE DUST

LAST week we pointed out that the bad siting, lay-out and appearance of new building could not be attributed entirely to the non-employment of architects. Undoubtedly, one of the chief causes is the astonishing lack of co-ordination between highway and housing authorities.

Talking recently at the Housing Centre, Sir Charles Bressey made this significant statement :

> Curiously enough, the inexperienced house-hunter is usually attracted to a busy arterial road—much to the annoyance of the road-engineer who wants a clear highway for through traffic. What are the reasons for the house-hunter's choice ? The arterial road is usually the widest, best lighted, and best maintained of all roads in the neighbourhood ; it carries a frequent bus service to school, chapel, shopping centre and cinema ; it affords the householder a very animated spectacle from his front windows, and no small boon this to the wife, engaged for long hours in monotonous household duties. Some social reformers harbour the belief that the town-dweller's chief ambition is to possess a house commanding a placid view of buttercups and daisies ; this may be so for a fortnight in blossom-time, but the unregenerate human race still retains its gregarious instincts for eleven and a half months of the year and hankers after the exhilarating bustle of the High Street.

Roads and housing, as Sir Charles pointed out, are inseparably related—but they should not be so inseparably related that every new traffic way has to be hugged by villas, so making the road ineffective —if not positively dangerous—both as traffic way and residential access road.

Nevertheless, this hankering after the high street is a most patent cause of bad siting. Builders are very well aware that houses in these positions sell best, and so long as there is land available within the permitted 220 ft. or less from the centre of the road, they will not consult their consciences before buying it. We know of attempts to provide " amenities " by planning treed forecourts at right angles to the road, and we know that the comparatively quiet, secluded houses in these cool, green forecourts have been the last to sell, and have fetched lower prices than their dusty brethren bordering the highway. How it is possible for intelligent citizens to show preference for the dust, the fumes and the noise day and night, is difficult to understand. But they do.

Nevertheless, we have a distorted idea of democracy if we imagine it is the privilege of every free citizen to stake his claim alongside the high road, as if he were taking a front seat in a theatrical review. Persuasion should be used to explain this to him. Persuasion, first of all, of intending house-owners, who should be shown that a house on the highway is not only dirtier, noisier, less healthy, more dangerous for children, but that it is also anti-social, adding as it does to traffic risks and the dangers to other people's children. Persuasion is necessary also for controlling councils, to convince them of the advantages of using their powers in the form of preconceived development plans, to point out the false economy of combining the functions of traffic road and service road. It is not generally realized that all the more successful examples of housing development, such as those shown in that admirable Government-sponsored book, *Houses We Live In*, are the result of very competent planning control.

The greatest failing at present lies in the lack of co-operation between the county highway authorities and the local housing authorities ; or, to go right to the root of things, between the Ministry of Transport and the Ministry of Health. There is confusion, in the first place, over the functional classification of roads. There are many types of roads (primary, secondary, parkway, service, and so on), but a very clear distinction can and should be made between the two main types : the through traffic *arteries*, designed to carry traffic as swiftly, safely and efficiently as possible from one centre to another ; and the *capillaries*, designed to give access to housing communities. Roads in the first category should be conceived solely as traffic channels ; there should be compulsory purchase powers for a wide strip of land alongside them, and on no account should access be given from these roads to housing developments, except at very distant intervals. In this way the through traffic ways would be made safe, efficient and, incidentally, very much more inspiring ; while the attractive, more manageable and sociable possibilities of grouping new developments in self-contained neighbourhoods would be encouraged.

There are several living examples of this common-sense principle of separation. Radburn, New Jersey, is still the outstanding example of a community which is planned so that none of its houses has direct access from the through traffic way, which is designed in this case as a parkway when it passes through the town. In Radburn most of the houses are accessible from a park strip independent of the service roads, and in no case do children have to cross through-traffic roads on their way to school. Withenshawe is an English example of a community planned in self-contained neighbourhood units separated by through-traffic parkways. Kincorth, new satellite of Aberdeen, is being developed (we presume) according to the competition design of its town-planners, who used this same neighbourhood separation and linked up the open spaces and surrounding greenbelt by a system of pedestrian park strips independent of any motor roads.

The Architects' Journal
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NOTES & TOPICS

PRO OR RETRO?

SOMEBODY who seems to think I need a refresher course has sent me the new prospectuses of two rival Schools of Architecture—the A.A. and Liverpool. The A.A.'s, rather self-consciously unpretentious, has shrunk to pocketbook size and has a cover done out in red letters on a filmy photo-spread of its Bedford Square façade. Liverpool's, in spite of silver Gill Sans lettering on white, retains a definitely academic look.

*

Not that this is at all significant; for the outline of the reconditioned Liverpool course, with its stress on teaching from the beginning the principles of modern construction as "integrally related to the teaching of design," seems every bit as sound and progressive as the A.A.'s.

*

Of course, there is in the Liverpool prospectus an illustration of a first-year classic project for a Greek theatre—most competent and full of verve, but the kind of thing long taboo at the A.A. Yet who is to say if scorning the classic project is *pro-* or *retro*gressive? Not Astragal. Not in the holiday season, thank you.

FANCY

Did you know that in the Church of St. Mary Woolnoth there is a monument to a black slave? That the shop still exists which sold that very tea thrown into Boston Harbour in 1773? That in the new pub which has replaced the King's Head in Fenchurch Street are still preserved the metal dish and cover from which Queen Elizabeth ate her pork and peas in 1554?

*

This, and much other information of the sort not found in conventional guide books, is contained in *London Adventure*, by Elizabeth Montizambert,* the latest 6d. booklet published by the L.P.T.B.

* Hon. A.R.I.B.A.

The style is chatty, even a trifle cosy, but the author has an alert eye for the curious, and an imaginative method of pursuing her inquiries. Full information is given about the buildings and places described, there is an index, and Mr. Raymond McGrath has decorated the pages with a score of enchanting little line drawings.

WRITE-UP

Miss Jocelyn Adburgham, first woman architect to become a member of the Town Planning Institute, has made the news (the *Evening* News). She is probably suffering the usual embarassments of having her interview recorded, but it is the kind of write-up we ought to see occasionally because it does give the public an intelligent idea of the usefulness of architects in planning houses, and *layouts* for houses, too.

*

One of the things Miss Adburgham* is supposed to have said is that it is "emotionally-wearing" to build a house to fit the people who will live in it. You have to "study them, be receptive of their requirements, and yet keep your creative energy intact." But by the time you've built the house "you're friends with the whole family, you're asked to meals, to stay with them . . ." Some people have all the luck: how many of us are on speaking terms with clients when the maintenance period is up?

ANY OLD ROMAN OBJECTS?

Twenty years ago the Rector of St. Clement Danes bought a bath. He saw it advertised for sale in a newspaper. It was the private bath of a Roman civil servant in Britain in the time of Hadrian.

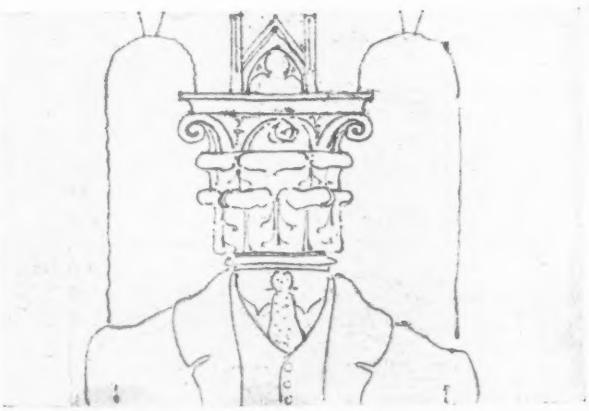
*

The Rector is going to give the bare brick walls a clean-up soon, but he can't afford to re-equip the thing. So if you have any unwanted old Roman objects, you might do worse than give or lend them to the Rector.

PARLIAMENTARY ACOUSTICS

Though the House of Lords has been equipped with amplifiers for some years, the appeals of the Parliamentary Press Gallery for amplification in the House of Commons

* Owner of two of the bluest and straightest eyes I have ever seen, says reporter Jill Fenton.



Found by Astragal under his menu at the Majorca restaurant. Done in ink on the inside of a packet of Craven "A." By whom?

have been repeatedly turned down. The chief reason appears to be the fear that private conversations might leak up to the gallery.

*

The latest urgent appeal demands that this objection should be proved valid or invalid by means of tests. Apparently the inaudibility of members is growing worse, and this, claim the press, is due to (1) the use of rapidly read manuscripts, and (2) the fact that many M.P.s have become accustomed to a microphone technique which is totally unsuited to the acoustics of the House. But how many of us would prefer the private conversations to the rapidly read manuscripts?

MUSIC-LOVERS' NATIONAL TRUST

Sir Thomas Beecham says: British music-lovers should buy Covent Garden Opera House as a national trust. By a levy on membership or by subscribing to a great fund, he thinks they could raise the odd £250,000 necessary to save this historic building from threatened demolition.

*

"Free of rent and rates," he says, "opera seasons would pay." So would lots of other things, but if a National Theatre why not a National Opera House?

RESCUE AND DEMOLITION

Mr. Herbert Morrison, whose letter appeared in this JOURNAL last week, has appealed "for physically fit men of thirty and over, of the type of builder's foremen employed in the building trades." Wanted for Rescue and Demolition Work. Here's the opportunity for everyone who has wanted a war just to remove the plague spots of London. You can now help Mr. Morrison and help to pull down that building you've been hating most for the last ten years.

*

What is more, the new service gives architects a chance to train in advance of the kind they have been suggesting for several years. At least we should be more sensibly employed than General Gough, who claimed to possess a certain talent for organization but no knowledge of children, and has therefore been given (by the L.C.C.) the job of escorting children to the station.

*

And, talking of evacuation, a recent Ministry of Health circular says, of billeting accommodation, that "the standard of one person to a habitable room will not normally be exceeded." Better than our present slum standards by some 30 per cent., *and* arrangements are to be made for communal meals. So one day, *pace* Dr. Harry Robert and others, we may have slum dwellers rehoused in real community centres instead of repetitive barracks.

MORE ABOUT RONES AND COOMS

The Inverlochy Village Society, Ltd.,
Estate Office,
Inverlochy Village,
Fort William,
Inverness-shire.

My Very Dear Astragal ! !

I have just read your paragraph headed "T'was Brillig, etc. . . ." and have no doubt that by now you will have received letters from every architect in Scotland—to say nothing of the first-year students, commencing "Miserable Sassenach. . ." I propose, however, to deal more kindly with you! First, may I suggest the expenditure of 5s. upon a useful little pocket-book entitled "Spon's Practical Builders' Pocket Book" which most architects possess or should possess. Upon turning to page 389, you will be greeted with the following :—

Scottish Building Terms—Glossary of

Scottish	*English* (equivalent)
Astragals	Sash Bars

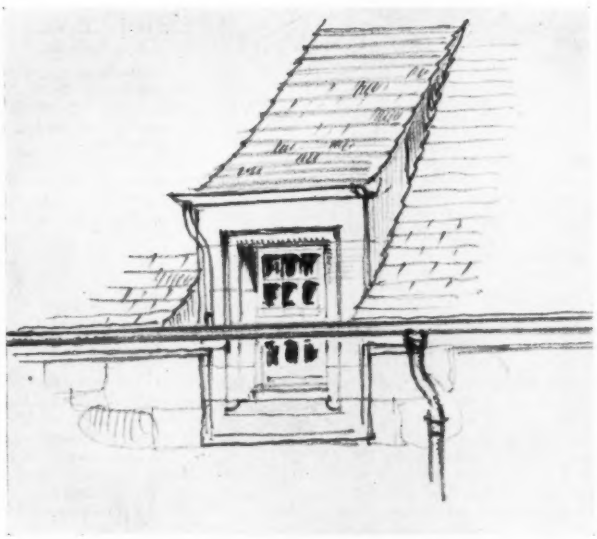
Is it too much to hope that you will in future sign yourself "Sash Bar"?

Oddly enough, under the Scottish terms I see that it gives "Camp ceiling" which I always understood to be the English term for what is known all over Scotland to my knowledge as a "coomb" or "coom-ceil." Anyway, it is described as "an attic ceiling with sloping soffits on all sides."

Rhones, you will now have discovered are eaves gutters.

Now, as to more particular enlightenment upon the paragraph quoted from the *Edinburgh Evening News*—which by the way is probably by now making merry at your expense—a little explanation is necessary.

It has been the policy of the Edinburgh City Architect when re-building slum property within the City boundaries to make some attempt to retain the traditional manner of building. The Scottish tradition in building owes most to France, a certain amount to the Low Countries and Scandinavia, and *almost* nothing to England. One very common feature is a steeply pitched roof with dormer windows (often highly ornamented) and the rhone—sorry, gutter—led across the window itself at the wall head level thus :—



From this you will see that this feature, although very attractive on the work of the period, is probably not one to be copied when re-housing in the year 1939 and the *Evening News* correspondent has quite reasonable grounds for objection.

Finally, as you are apparently unfamiliar with Scottish architecture as such may I commend to you a little book entitled "The Stones of Scotland" by George Scott-Moncrieff and others. I think you will enjoy it.

Yours faithfully,

HERBERT G. DUNN.

SIR PERCY BATES'S LATEST

For goodness knows how many years the old *Mauretania* was the most popular ship on the Atlantic ferry service, and this may perhaps account for the civic reception at Cobh (Cork to you) and the cheery New York welcome which the new *Mauretania* had on her maiden voyage. From photographs the new ship looks handsome in a rather stodgy sort of way—but the interiors? Not one solitary photograph. The Cunard line long ago appointed Mr. Wornum to do the *Queen Elizabeth*, and the best people are still asking whether he has done the *Mauretania* as well, or whether she is just another piece of Tottenham Hotspur.

ASTRAGAL

NEWS

POINTS FROM THIS ISSUE

Winning design in the Consett Competition 161

A plea for Astragal to sign himself "Sash Bar" 165

"The newly-formed Central Council of Civic Societies, by restricting membership roughly to towns of more than 30,000 population, will prevent overlapping with the work of the C.P.R.E." 166

£3,270,000 Aqueduct for Manchester 172

THE ARCHITECTS' DIARY

Saturday, August 19
ASSOCIATION OF ARCHITECTS, SURVEYORS AND TECHNICAL ASSISTANTS. *Visit to Russia. Until September 10.*

Saturday, September 2
ASSOCIATION OF ARCHITECTS, SURVEYORS AND TECHNICAL ASSISTANTS. *Visit to France. Until September 17.*

Thursday, September 21
INSTITUTE OF HOUSING. *Annual Conference, Brighton. Until September 23.*
NATIONAL SMOKE ABATEMENT SOCIETY. *Eleventh Annual Conference, Blackpool. Until September 23.*

Friday, September 29
FACULTY OF ARCHITECTS AND SURVEYORS. *Annual Conference, Brighton. Until October 2.*

Wednesday, October 18
BUILDING TRADES EXHIBITION, *Birmingham. Until October 28.*

Thursday, October 19
COUNCIL FOR THE PRESERVATION OF RURAL ENGLAND. *Twelfth National Conference, Tunbridge Wells.*

BUILDING STANDARDS

Building standards were discussed last week in the House of Lords, where the Lord Chancellor moved the second reading of the Building Societies (No. 2) Bill. He said that the Bill diminished the risk of jerry-built houses, as it contained proposals enabling the Minister of Health to approve a body which would issue certificates in respect of houses erected to certain standards. The better type of builder would get better terms.

Lord Addison said that a good many of the houses built under the combined arrangement of building societies and builders would be little better than slums in less than 20 years. Tens of thousands of poor people had been crippled by the inflated price they had been forced to pay. The Bill was long overdue, and, as a former Minister of Health, he felt a share of responsibility for not having foreseen the extent to which the scandal would develop. This form of speculative building was now under a cloud, partly because the market had been oversatisfied, and partly because so many people had found that their weekly payments, plus the necessary repairs to their houses, had imposed upon them a burden which made their neighbours shy of placing such a burden on their own shoulders.

Lord Mancroft said that the good building societies had performed a public service. They had nothing to fear from the Bill.

The Bill was read a second time.

A.R.P.

A pamphlet, "A.R.P. in Industry," explaining the Civil Defence Act has been prepared by the Lord Privy Seal's Department for the guidance of owners and occupiers of industrial and commercial establishments. It is a revised and amplified description of the Act, replacing the pamphlet bearing the same title which was issued at the time this measure was introduced into Parliament.

The new pamphlet has been printed in large quantities, and copies may be obtained, free of charge, on application to the Publicity Section, A.R.P. Department, Horseferry House, Thorney Street, S.W.1.

Messrs. C. H. Elsom (left), L. Israel (centre) and E. D. Lyons, whose design has been placed first in the competition for Council Offices, Consett.

CIVIC SOCIETIES

Lord Esher has been elected first chairman of the Central Council of Civic Societies, formed recently to foster the work of existing civic societies and to encourage the establishment of similar societies in cities where none exist. Lord Esher, in a statement issued on Monday last, explained that the new body, by restricting membership roughly to towns of more than 30,000 population, will prevent overlapping with the work of the Council for the Preservation of Rural England. A preliminary meeting was called by the London Society at its headquarters, Lancaster House, St. James's, S.W.1. The London Society agreed that its offices should be the permanent address of the new society, with its organizing secretary, Mr. Percy Lovell, acting as honorary secretary.

A.R.P. SHELTERS IN SOUTHWARK

The Southwark B.C. is to ask the advice of architectural and engineering consultants as to the best method of A.R.P. for the large blocks of privately-owned tenements in the borough.

The Borough Engineer is to draw up a report and survey of these tenements, and last week the Council approved the appointment of two consultants, one from an architectural firm and the other from a firm of engineers, to help in preparing the survey.

The Council also approved that another firm of engineers should be consulted to find out whether deep shelters could be built in certain parts of the borough which could be adapted for use as car parks in peace time.

SHORTER NOTICES

● Colonel W. S. Cameron has been appointed to succeed Mr. J. E. Acfield as City Engineer to the Leeds Corporation. Colonel Cameron, who has been Chief Planning Officer of the City for some years, is Chairman of the Northern Section of the Town Planning Institute, and is also Special Lecturer in Engineering in the Department of Town and Country Planning and Housing in the Leeds School of Architecture.

● The twenty-first annual country meeting of the Town Planning Institute will be held at Taunton from October 6 to 8, inclusive.

● The Hastings Town Council has rejected a scheme for the creation of a holiday camp at Fairlight involving the erection of 1,000 wooden bungalows, a bathing pool and other buildings.

● A motion to prevent the Finsbury Borough Council from building a £100,000 deep bomb-proof shelter by "hire purchase" was dismissed by Mr. Justice Simonds in the Chancery Division last week.

● The Manchester City Council has turned down a Labour Party demand for deep bomb-proof shelters in the city.

● Mr. William Ballard, City Building Surveyor and Chief Architectural Assistant of Birmingham Public Works Department, retired last week-end after forty-one years' service.

● An Exhibition of work of students of the Northern Polytechnic School of Architecture will be held at the Building Centre, 158 New Bond Street, W.1, from Monday, August 28, to Friday, September 15.

The Exhibition will be open between the hours of 10 a.m. and 6 p.m. on weekdays, and 10 a.m. to 1 p.m. on Saturdays.

R.I.B.A.

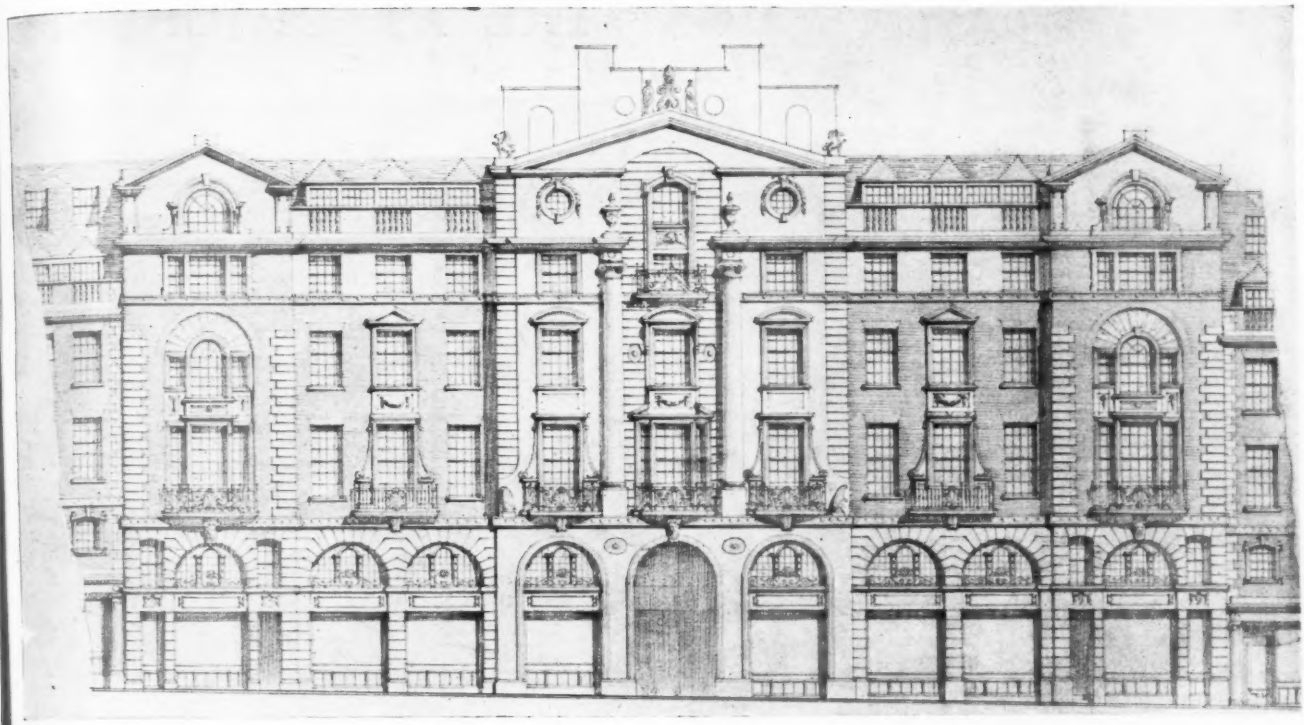
MAINTENANCE SCHOLARSHIPS

The following R.I.B.A. Maintenance Scholarships have been awarded for the year 1939-1940 :—

An R.I.B.A. (Houston) Maintenance Scholarship of £100 per annum to Mr. J. V. Barnett of London.

The "Builder" Maintenance Scholarship of £70 per annum to Mr. J. S. Minton of London.

The Maintenance Scholarships previously awarded to the following candidates have



Plans have been prepared for the rebuilding of both sides of Sackville Street, W.1, and it is likely that the proposed new central blocks, one on each side of the street, will be started in the next few months. Above is the proposed elevation of one of these central blocks. On the right is the east side of Sackville Street as it now is looking towards Piccadilly.
The architect for the whole rebuilding scheme is Mr. George J. Skipper.

been renewed for a further period of one year :—

Mr. F. R. Greenen (Bartlett School of Architecture, University of London)—R.I.B.A. (Houston) Maintenance Scholarship of £100.

Mr. M. Shepheard (Liverpool School of Architecture, University of Liverpool)—R.I.B.A. (Houston) Maintenance Scholarship of £100.

Mr. J. L. Ware (Bartlett School of Architecture, University of London)—R.I.B.A. (Houston) Maintenance Scholarship of £100.

EXAMINATIONS

The oral examination for the R.I.B.A. special final examination will in future be conducted from 10 a.m. on the Wednesday (i.e. the day following the close of the examination) instead of from 3.30 p.m. on the Tuesday (the day of the close of the examination).

•

Dates on which forthcoming R.I.B.A. Examinations will be held :—

Intermediate Examination :

November 17, 18, 20, 21 and 23, 1939. (Last day for receiving applications, October 17, 1939.)

May 17, 18, 20, 21 and 23, 1940. (Last day for receiving applications, April 10, 1940.)

November 15, 16, 18, 19 and 21, 1940. (Last day for receiving applications, October 8, 1940.)

Final Examination :

November 29, 30 ; December 1, 2, 4, 5 and 7, 1939. (Last day for receiving applications, October 27, 1939.)

November 27, 28, 29, 30 ; December 2, 3 and 5, 1940. (Last day for receiving applications, October 28, 1940.)

Special Final Examination :

November 29, 30 ; December 1, 2, 4 and 5, 1939. (Last day for receiving applications, October 27, 1939.)

July 3, 4, 5, 6, 8 and 9, 1940. (Last day for receiving applications, June 3, 1940.)

November 27, 28, 29, 30 ; December 2 and 3, 1940. (Last day for receiving applications, October 28, 1940.)

Statutory Examination for District Surveyor and the Examination for Building Surveyor :

October 4, 5 and 6, 1939. (Last day for receiving applications, September 4, 1939.)

May 1, 2 and 3, 1940. (Last day for receiving applications, April 1, 1940.)

October 9, 10 and 11, 1940. (Last day for receiving applications, September 9, 1940.)

•

The Final Examination was held in London and Edinburgh from July 5 to July 13, 1939. Of the 217 candidates examined, 127 passed (58 of whom sat for and passed in Part 1 only) and 90 were relegated.

The successful candidates are as follows :—Ansell, H. B.* ; Atherton, E. S. W.* ; Bee, P. R.* ; Bell, G. M. ; Bethell, G. A.* ; Bowyer, R. ; Brett, Hon. L. G. B. (Distinction in *Thesis*) ; Brown, R. W. W.* ; Bruce, A. H.* ; Carpenter, J. E. B. ; Carter, G. E.* ; Causon, A. H.* ; Chapman, R. F. H. ; Chappell, D. ; Chivers, T. A.* ; Clark, D. J. ; Clayton, R. W.* ; Corner, T. H.* ; Dale, B. H.* ; Dale, G. W. ; Daley, H.* ; Davison, J. G.* ; Dewey, A. C. ; Dickson, F. W.* ; Dixon, J. F. ; Eaton, T. C. R.* ; Edwards, A. D. ; Elliott, R. F.* ; Ellis, T. B. H. ; Elsom, C. H. ; Fairbairn, G. W. ; Farmer, C. P.* ; Farms, K. W. ; Finch, F. E. ; Fisher, O. K. ; Fowkes, C. R. ; Green, N.* ; Greenwood, C. P. ; Greenwood, J. ; Griggs, C. P.* ; Gummer, C. W. ; Haddy, J. A.* ; Harris, E. B. ; Harrison, W. T.* ; Harse, M. E.* ; Hazlewood, W. R.* ; Heywood, L. A. J.* ; Hibberd, L. R. ; Hicklin, F. K. ; Hindle, C. ; Hindshaw, (Miss) C.* ; Hole, W. E.* ; Horsfield, A. J.* ; Hunt, H. A. ; Hunt, L. B. ; Hurst, R. W. ; James, B. V. ; Johnson, F. P.* ; Kaufman, I. ; Kellett, K. G.* ; Kinton, R. K. ; Knott, R. F.* ; Lack, K. R.* ; Larrington, C. T.* ; Lasdun, D. L.* ; Lee, G. ; Lever, H. ; Lomas, L. C. ; Lowe, C. W. ; Loyd, J. C. ; Lyon, N. A. ; Martindale, C. B.* ; Mason, O. J. C. ; Meadows, R. R. (Distinction in *Thesis*) ; Menage, F. C. ; Mence, S. R. ; Mills, D. G.* ; Milsom, F. G. ; Murphy, J. W.* ; Myers, D. ; Nettleton, C. N. ; Oexle, J. S.* ; Oliver, G. H. ; Oram, (Miss) B. ; Overbury, T.* ; Pack, E. V. ; Page, R.* ; Pearce, N. F. ; Pratt, A. R. ; Prince, W. H. ; Purnell, N. K.* ; Raynham, J. E.* ; Richardson, A. E.* ; Ritchie, D. A. H.* ; Rogers, V. W. ; Sandon, E. C. R. ; Scott, L. G. ; Singer, T. S.* ;

* Part 1 only.

Sketchley, J. R. ; Smith, L. R.* ; Strong, A. J.* ; Sunderland, E. S. ; Surman, J. M.* ; Tapner, B. C.* ; Tagholm, C. G. ; Thorpe, R. B. ; Tocher, W. R.* ; Tooth, D. R. N. ; Torry, J. F. ; Townrow, S. ; Turner, F.* ; Turner, N. G. E.* ; Tyler, R. M. T.* ; Walls, A. W. ; Ward, J. F.* ; Watson, (Mrs.) B. L. ; Wells, C. B.* ; Whitehorn, J. E. ; Whittle, J. M. ; Willars, F. L. ; Williams, H. J.* ; Williams, T. D. ; Wills, G.* ; Wiseman, R. H.* ; Wood, L. C. (Distinction in *Thesis*) ; Wood, R. G. ; Yarrow, A. R.

THE SPECIAL FINAL EXAMINATION

The Special Final Examination was held in London and Edinburgh from July 5 to July 11. Of the 68 candidates examined, 35 passed (seven of whom sat for and passed in Part 1 only) and 33 were relegated.

The successful candidates are as follows :— Barnes, V. C. ; Bloore, H. G. ; Bramley, A. R. ; Burton, J. W. ; Cannon, J. C. ; Chamberlaine, D.* ; Colgrave, A. E.* ; Deuchars, J. ; Eve, A. S. ; Fisher, A. ; Gelson, G. W. ; Gillett, H. G. ; Hamilton, H. O. ; Hamilton, K. W. ; Heathcote, J. S. ; Hedley, F. ; Jacobs, H. G. ; Lawton, J. ; Macfarlane, R. A.* ; McGuire, R. ; McIsaac, M. L. ; MacKenzie, A. ; McMaster, H.* ; Maggs, K. L. ; Marston, J. C. ; Mochrie, H. A.* ; Morris, C. L. ; Perry, C. A. ; Ridley, A. J. ; Sargent, E. T. ; Sheppard, H. H. B. ; Thomas, W. W. ; Thornley, H.* ; West, J. C. P.* ; Woodhead, A. J.

The Examination in Professional Practice for Students of Schools of Architecture recognised for exemption from the R.I.B.A. Final Examination.— The Examination was held in London and Edinburgh on July 11 and 13. Of the seven candidates examined, six passed and one was relegated. The successful candidates are as follows :—

Blackmore, S. W. ; Broun, G. S. ; Dunbar, F. B.; Forsyth, R. J. ; Gilfillan, (Miss) J. C. S. ; Ross, H.

* Part 1 only.

LETTERS

A.R.P. Shelters

SIR,—We are rather surprised that Mr. O'Rorke should make such vague and general criticisms of the Finsbury shelters designed by us (in collaboration with Mr. Arup) at this stage. We are naturally anxious at all times to have constructive criticism of our designs, and for this very reason full details of the Finsbury scheme were published and publicly exhibited some time ago.

Mr. O'Rorke bases his criticisms on figures giving the number of people entering Piccadilly Tube Station. We do not know where these figures come from, but we would refer Mr. O'Rorke to "Structural Defence" (Handbook No. 5), page 39, table 4.2, where details are given of observations by the London Passenger Transport Board of persons passing "unhurried" through various entrances. These figures are very different from Mr. O'Rorke's. Needless to say, people entering our shelters will not rely on narrow escalators for access ; they will not buy tickets at the entrance, nor show them at a barrier, and are not likely to pause before entering to buy their evening papers.

For and on behalf of Tecton,

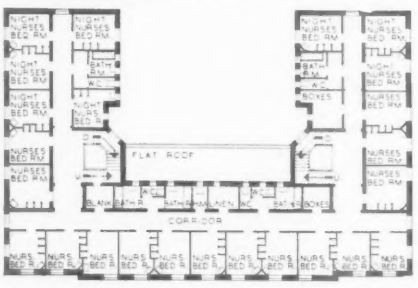
F. SKINNER

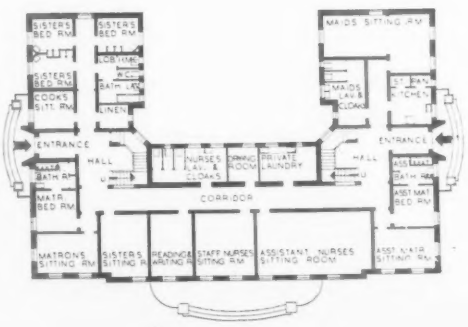
London.

HOSPITAL AT CHICHESTE

DESIGNED BY C. G. STIL L M

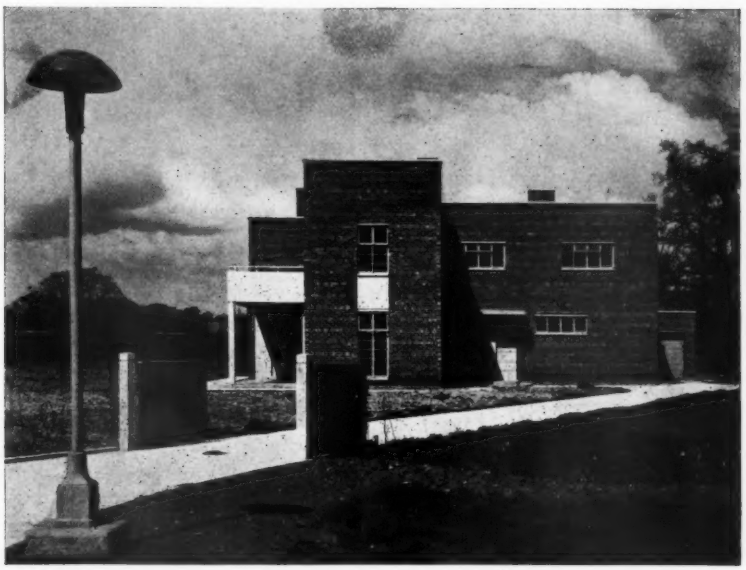
ENTRANCE TO NURSES' H





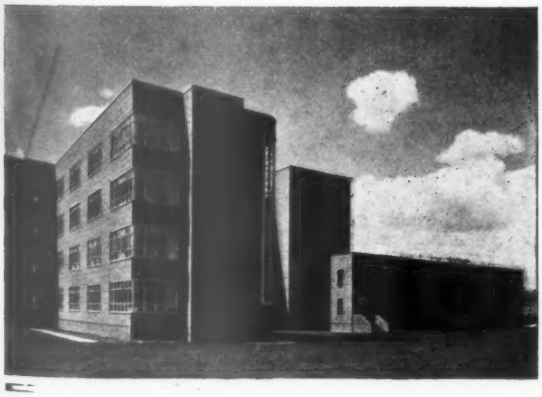
GENERAL—*Designed to relieve the pressure on poor law institutions in West Sussex, this hospital at Chichester is the start of a scheme to be completed by stages. Provision has been made for two ward block extensions, a larger nurses' home, and a maternity block and operating unit. The future extensions of the nurses' home are shown on the block plan on the opposite page.*

THE NURSES' HOME : GROUND AND FIRST FLOOR PLANS



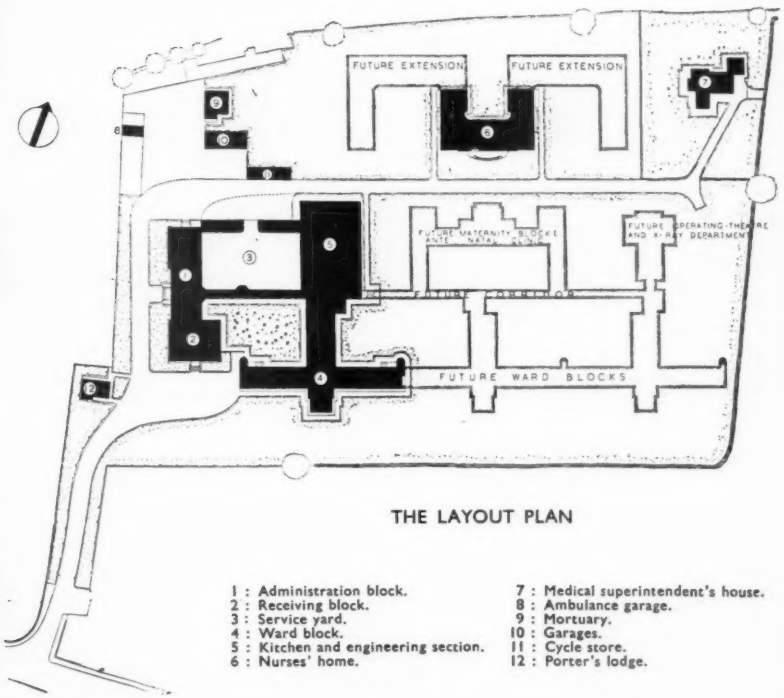
MEDICAL SUPERINTENDENT'S HOUSE

CONSTRUCTION AND EXTERNAL FINISHES—*The ward and kitchen blocks are reinforced concrete framed, externally faced with bricks, the administration block and nurses' home having 13½ in. cavity external walls. All internal walls and partitions are of brick and breeze slabs, and the whole of the buildings have reinforced concrete floors and flat roofs, the latter being insulated with cork and covered with asphalt on felting. All windows are of steel.*



ON THE LEFT : (TOP) WARD BLOCK, WITH PATIENTS' ENTRANCE TO ADMINISTRATION BLOCK ON LEFT. (CENTRE) END OF WARD BLOCK WITH KITCHEN WING ON RIGHT. (BOTTOM) NURSES' HOME

SITE—*The site is at Chichester, away from any main road and bounded on three sides by fields and on the fourth by allotments, but it is placed within easy reach of the 'bus routes. In addition to allowing for two further ward block extensions, provision has been made for extending the nurses' home and for the inclusion of a maternity block and operating unit. A secondary entrance to the site is proposed to serve as a goods entrance, and land is available on the north side to meet this need*



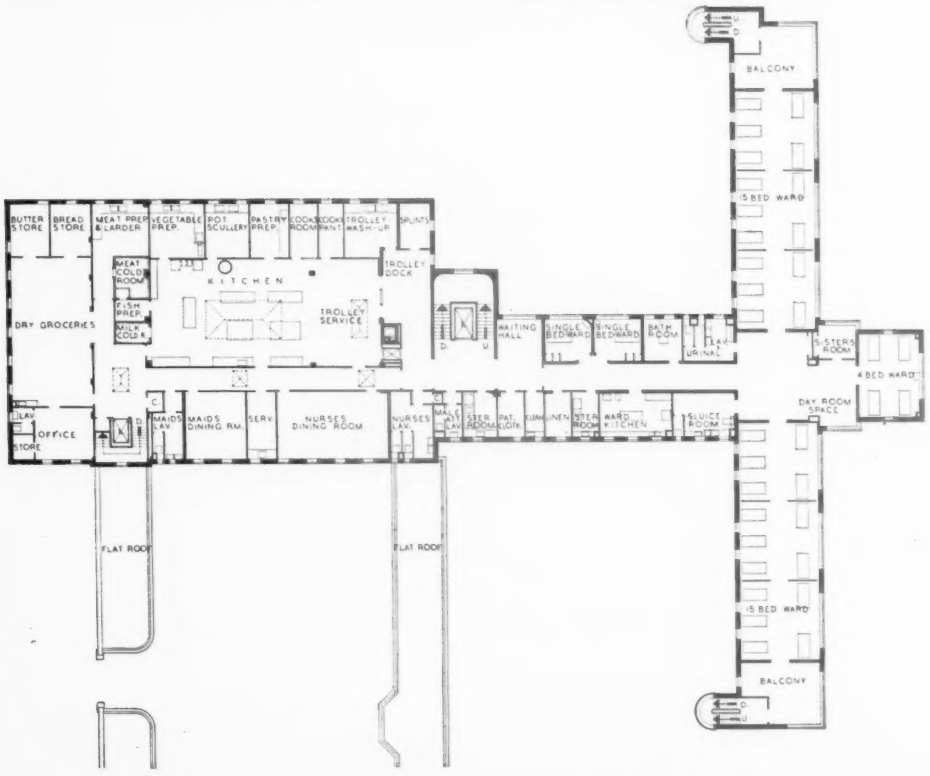
THE LAYOUT PLAN

1 : Administration block.
2 : Receiving block.
3 : Service yard.
4 : Ward block.
5 : Kitchen and engineering section.
6 : Nurses' home.
7 : Medical superintendent's house.
8 : Ambulance garage.
9 : Mortuary.
10 : Garages.
11 : Cycle store.
12 : Porter's lodge.

HOSPITAL AT CHICHESTER • BY C. G. STILLMAN

C

MAIN ENTRANCE FRONT FROM WEST



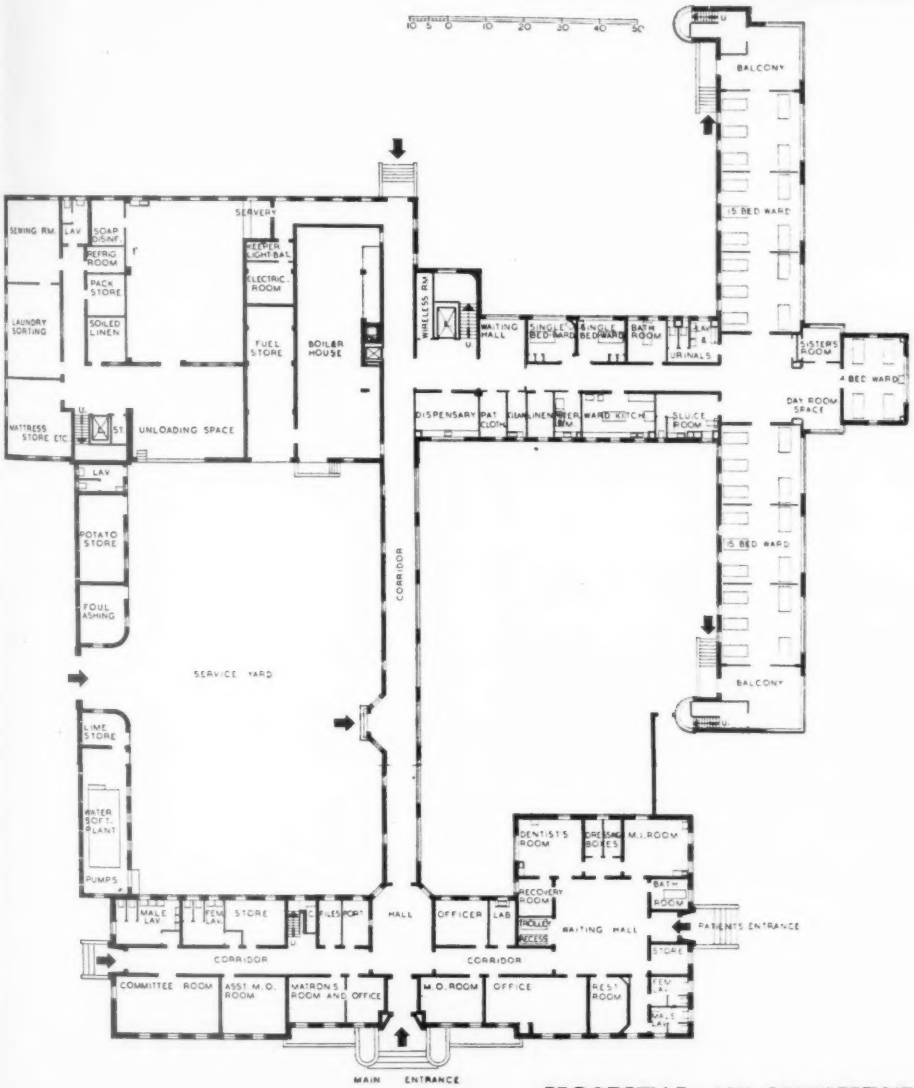
FIRST FLOOR PLAN
WARD BLOCK AND
KITCHEN

PLAN—*The ward block, which faces south, is planned as a four-storeyed unit to utilize the site to the maximum capacity and shorten runs of services from the kitchen, boiler house, etc. The present ward block gives accommodation for 144 beds, but the site lay out has been arranged to allow two further extensions each of 144 beds, giving a total accommodation of 432 beds. The engineering and kitchen block is a two-storeyed building with the boiler house and general storage on the ground floor, and kitchen and staff dining-rooms on the first floor, together with the necessary storage for provisions. The kitchen, boiler house and storage have been designed to give accommodation for additional equipment when extensions take place.*

HOSPITAL AT CHICHESTER • BY C. G. STILLMAN

ADMINISTRATIVE ENTRANCE

INTERNAL FINISHES—*Walls generally are plastered and painted except for the dado 6 ft. 6 in. high of seamless cement glazing to all rooms with tiled floors, and for the wall tiling to the main entrance hall of the administration block. The floors to the ground floor rooms of the administration block, the ward block and nurses' home, together with the ward kitchen on each floor, kitchen storage and all staircases are finished in patent wood-block flooring ; the corridors and upper floors to these buildings being covered with a patent lino finish, while the floors to the main kitchen, lavatories, bathrooms and sterilizing rooms are finished in buff-coloured tiles with close joints.*



GROUND FLOOR PLAN : ADMINISTRATION AND WARD BLOCK

SERVICES—*A steam boiler is provided for generating the steam required by the sterilizing and cooking equipment, and the kitchen block is fitted with a mechanical ventilation plant. The hospital is also equipped with three lifts : one passenger and bed lift, a goods lift, and another for food services.*

The general contractors were the Anglo-Scottish Construction Co., Ltd. For a list of sub-contractors, see page 187.

HOSPITAL AT CHICHESTER • BY C. G. STILLMAN

DETAIL OF WARD BLOCK STAIR WINDOW

HOSPITAL AT CHICHESTER • BY C. G. STILLMAN

NEWS IN BRIEF

● Manchester Housing Committee has decided that, subject to the approval of the Ministry of Health, it will proceed with the erection of basement air-raid shelters for flats which are not yet ready for building.

If sanctioned by the Ministry these shelters will be large enough for 2,500 people, and will be open to the general public until such time as the flats are built.

The shelters have been planned to provide accommodation for three people from each flat in blocks at Collyhurst, Ardwick, and New Cross. The New Cross block is to have 324 flats, Ardwick 278, and Collyhurst 150.

● The Manchester Corporation Waterworks Committee has decided to ask the City Council at its next meeting to sanction an immediate start on the construction of a 64-miles aqueduct at an estimated cost of £3,720,000. The task will take seven years to complete. The City Council will give its decision in September.

● Suggestion from the Markets Committee that the services of outside firms should be employed while the City Architect's Department is busy on A.R.P. work has been adopted by the Manchester City Council.

Councillor Fitton pointed out, on behalf of the Markets Committee, that considerable improvements were necessary at the City Exhibition Hall. The City Architect's Department was too busy to draw up the plans for these improvements, and consequently they were being held up. If the work could be given to outside firms it would be speeded up considerably.

Before the question was put to the vote, Alderman Miss Jones said that she had received a letter from the City Architect (Mr. G. Noel Hill) regretting that he could not attend to certain plans, and that the position in his department was the same as in May, and that it would be several months before he caught up with the arrears of work.

● By rejecting the appeal of a local builder, the Ministry of Health has confirmed the right of the Doncaster Rural District Council to prohibit building on land liable to flooding.

● It has been announced that the London Electric Supply Corporation has withdrawn its petition against the London County Council (General Powers) Bill under which the Council is seeking authority to carry out its plan for redeveloping and improving the south bank of the Thames between Westminster Bridge and Waterloo Bridge.

The Bill is now unopposed, several other petitions having already been withdrawn. Under the Bill the Council will have power to acquire the necessary land compulsorily.

● Mr. T. R. McMillan has been elected a full member of the board of directors of Messrs. Trollope and Colls, Ltd. He has been associated with the firm since 1903, for many years as manager of their Dorking branch, and was appointed a technical director nine years ago.

● At the annual meeting of the River Tyne Improvement Commissioners, Mr. R. S. Dalgliesh, Chairman of the Docks and Trade Committee, said that plans had been completed for the construction of a new riverside quay at Tyne Dock at an estimated cost of £750,000. As soon as approval had been received from the Commissioner for Special Areas, the Ministry of Transport, and the Board of Trade the matter would be put before the Commissioners so that they could get tenders for the work. The new quay, now under construction at a cost of £250,000, would be ready in October next year.

WORKING DETAILS : 767

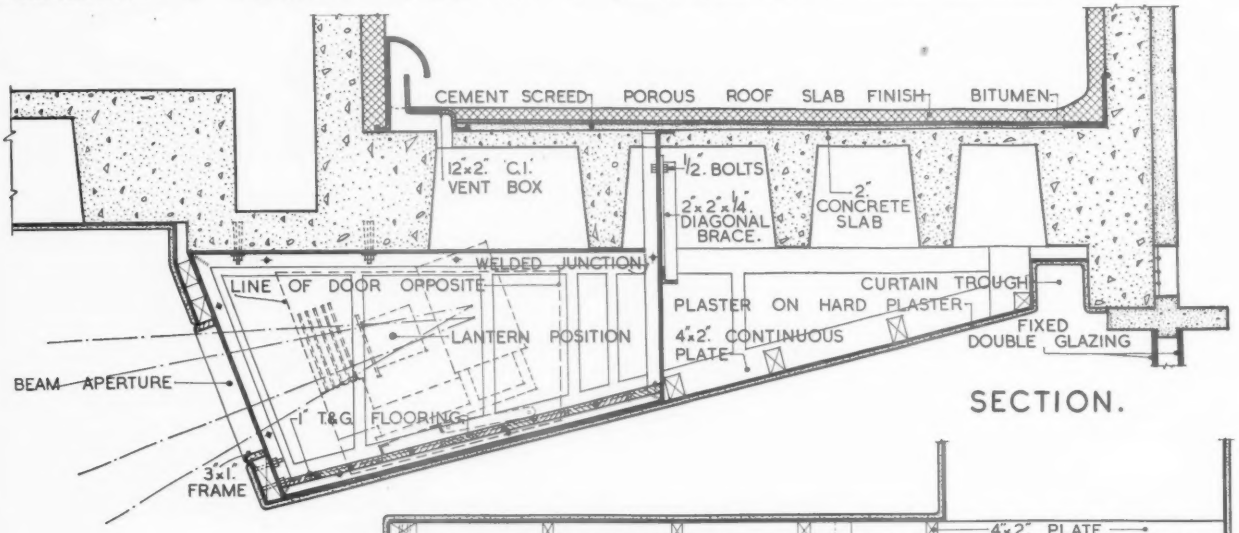
STAGE LIGHTING • THE NEW CASINO, BLACKPOOL • JOSEPH EMBERTON : ASSOCIATED ARCHITECT, HALSTEAD BEST

The main restaurant has a small stage which can be extended for the more elaborate cabaret performances by use of a rising floor. Performances are lit by six special projectors whose casings have been designed to form a feature in the ceiling. Additional lighting has been designed for use on the small stage. The projectors are operated from a switchboard behind the stage.
Details are shown overleaf.

FILING REFERENCE:

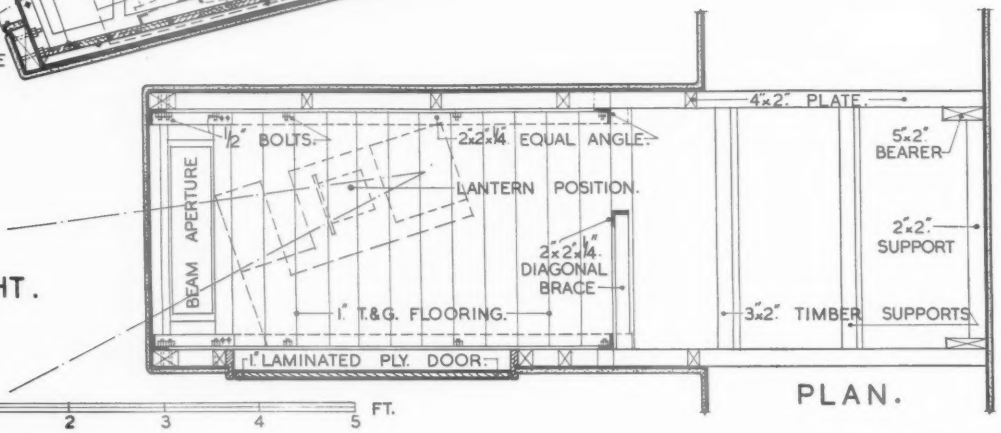
WORKING DETAILS : 768

STAGE LIGHTING • THE NEW CASINO, BLACKPOOL • JOSEPH EMBERTON : ASSOCIATED ARCHITECT, HALSTEAD BEST



SECTION.

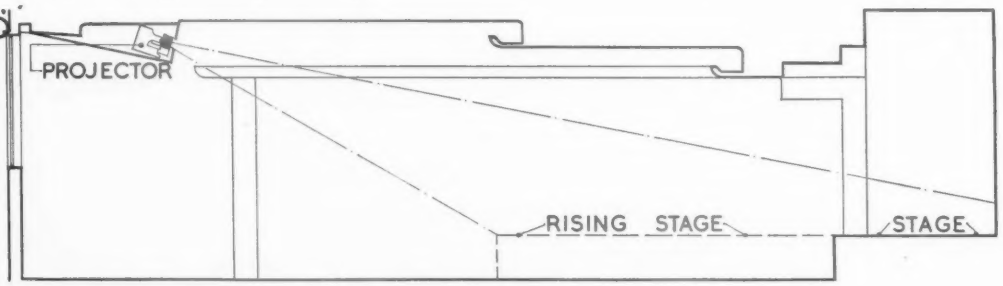
DETAILS OF ONE SPOTLIGHT.



PLAN.

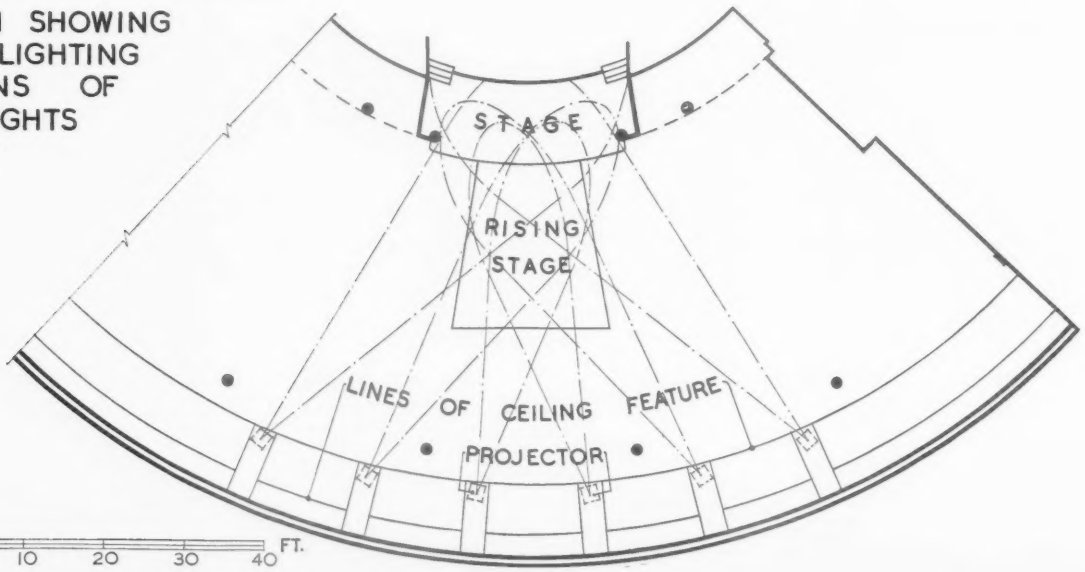
0 1 2 3 4 5 FT.

SECTION THRO' STAGE AND SPOTLIGHT.



5 0 5 10 15 20 FT.

KEY-PLAN SHOWING STAGE – LIGHTING BY MEANS OF SPOT - LIGHTS



10 5 0 10 20 30 40 FT.

Details of the stage lighting illustrated overleaf.

The Architects' Journal Library of Planned Information

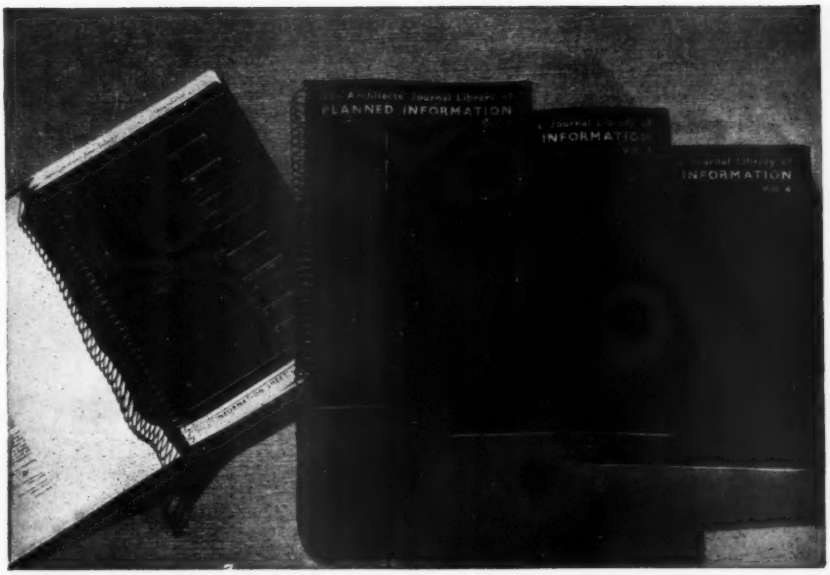
INFORMATION SHEET

SUPPLEMENT

SHEETS IN THIS ISSUE

751 Structural Steelwork

752 A. R. P.



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701 : Tile Hanging
702 (420 revised) : Fixing Insulating Board
703 : Sheet Metals
704 : Plan Elements
705 : Metal Work
706 : Plan Elements
707 : Furniture Layout
708 : Plan Elements
709 : Flue Construction
710 : Natural Lighting
711 : Glass and Glazing
712 (109 revised) : Quarry Tiles
713 : Glass and Glazing
714 : Metalwork
715 (106 revised) : Hot Water Radiators (Pressed Steel)
716 : Furniture Layout
717 : Metalwork
718 : Flooring Materials
719 : Plumbing
720 : Water Heating
721 : Wall Facing Materials and Wallboards
722 : Roofing
723 : Metalwork
724 : Timber Construction
725 : Sanitary Fittings
726 : Metalwork
727 : Waterproof Jointing and Bedding
728 : Timber Construction
729 : Steelwork
730 : Wall Facing Materials and Wallboards
731 : Metalwork
732 : Concrete Construction
733 : Structural Steelwork
734 : Metalwork
735 : Plumbing
736 : Structural Steelwork
737 : Structural Steelwork
738 : Metalwork
739 : Plan Elements
740 : Timber Construction
741 : Structural Steelwork
742 : Metalwork
743 : Wall Finishes
744 : Waterproofing and Damp-proofing
745 : Structural Steelwork
746 : Metalwork
747 : A. R. P.
748 : Waterproofing and Damp-proofing
749 : Metalwork
750 : Wall Facing Materials and Wallboards

THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

THE USE OF EQUAL & UNEQUAL ANGLE SECTIONS AS BEAMS:

Angle sections may be used as beams where the following conditions obtain :

(1) Where the imposed bending moments are so small that the smallest joists or channels would be excessive.

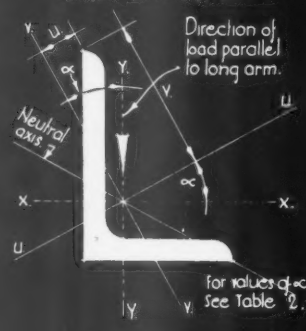
(2) Where the connections require a flange width greater than that of joists or channels.

(3) Where other than normal constructional considerations obtain.

UNEQUAL ANGLES: {not restrained laterally.

If u-u & v-v are the main axes and if the Moments of Inertia about these axes are Iu & Iv, the Section Modulus can be taken as :

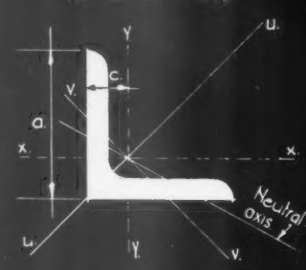
$$Z = \frac{Iu\ Iv}{u\ Iu \cos.\alpha + v\ Iv \sin.\alpha}$$



EQUAL ANGLES: {not restrained laterally.

for equal angles the above formula may be read as :

$$Z = \frac{2\ Iu\ Iv}{(a - 2c)Iu + aIv}$$



TABLES SHOWING COMPARATIVE ECONOMIC EFFICIENCY OF B.S. EQUAL & UNEQUAL ANGLES,

restrained laterally, see back of this Sheet.

TABLE 1, EQUAL ANGLES. TABLE 2, UNEQUAL ANGLES.

ANGLE SIZE In. x In. x In.	SECTION MODULUS.	EFFICIENCY COEFFICIENT
1 x 1 x 1/8	0·03	·037
3/16	0·04	·035
1¼ x 1¼ x 1/8	0·05	·050
3/16	0·07	·048
1½ x 1½ x 3/16	0·10	·058
1/4	0·13	·056
1¾ x 1¾ x 3/16	0·14	·066
1/4	0·18	·065
2 x 2 x 3/16	0·18	·075
1/4	0·24	·074
5/16	0·29	·074
2¼ x 2¼ x 3/16	0·23	·084
1/4	0·30	·083
5/16	0·37	·083
2½ x 2½ x 1/4	0·38	·094
5/16	0·47	·094
3/8	0·55	·093
3 x 3 x 1/4	0·55	·112
3/8	0·81	·113
1/2	1·05	·112
3½ x 3½ x 1/4	0·76	·133
3/8	1·12	·132
1/2	1·46	·132
4 x 4 x 3/8	1·48	·152
1/2	1·93	·151
5/8	2·36	·151
4½ x 4½ x 3/8	1·89	·172
1/2	2·47	·171
5/8	3·03	·170
5 x 5 x 3/8	2·35	·192
1/2	3·08	·190
5/8	3·78	·189
6 x 6 x 3/8	3·40	·229
1/2	4·49	·230
5/8	5·54	·230
3/4	6·54	·228
7 x 7 x 1/2	6·17	·269
5/8	7·63	·268
3/4	9·04	·268
8 x 8 x 5/8	10·05	·308
3/4	11·94	·307
7/8	13·77	·306

ANGLE SIZE. In. x In. x In.	SECTION MODULUS.	ANGLE ∝ DEGREES.	EFFICIENCY COEFFICIENT.
2 x 1½ x 3/16	0·17	31	·080
1/4	0·23	31	·083
2½ x 1½ x 3/16	0·27	20	·111
1/4	0·35	20	·110
2½ x 2 x 3/16	0·28	35½	·102
1/4	0·37	35½	·102
5/16	0·45	35½	·101
3 x 2 x 1/4	0·52	24½	·129
5/16	0·65	24½	·131
3/8	0·76	24	·129
3 x 2½ x 1/4	0·54	39	·121
5/16	0·67	39	·121
3/8	0·79	38½	·121
3½ x 2½ x 1/4	0·73	28½	·149
5/16	0·90	28½	·149
3/8	1·07	28	·149
3½ x 3 x 5/16	0·92	41	·140
3/8	1·10	41	·141
1/2	1·43	40½	·140
4 x 2½ x 1/4	0·94	22½	·177
5/16	1·17	22½	·177
3/8	1·38	22	·175
4 x 3 x 5/16	1·20	31½	·169
3/8	1·42	31½	·168
1/2	1·85	31	·168
4 x 3½ x 5/16	1·22	43	·160
3/8	1·45	43	·160
1/2	1·90	43	·159
4½ x 3 x 5/16	1·50	25	·196
3/8	1·79	25	·197
1/2	2·33	24½	·195
5 x 3 x 5/16	1·84	20½	·226
3/8	2·18	20½	·224
1/2	2·86	20	·224
5 x 3½ x 3/8	2·24	27½	·216
1/2	2·93	27½	·214
5 x 4 x 3/8	2·28	36	·208
1/2	2·99	35½	·207
6 x 3 x 3/8	3·09	15	·281
1/2	4·05	15	·280
6 x 3½ x 3/8	3·16	19½	·271
1/2	4·15	19½	·271
6 x 4 x 3/8	3·23	25	·263
1/2	4·25	25	·263
5/8	5·23	24½	·262
7 x 3½ x 7/16	4·91	15	·328
1/2	5·57	15	·328
7 x 4 x 1/2	5·70	19	·320
5/8	7·02	19	·318
8 x 3½ x 7/16	6·31	12	·384
1/2	7·17	12	·384
8 x 4 x 1/2	7·34	15	·375
5/8	9·06	15	·375
8 x 6 x 1/2	7·82	31½	·341
3/4	11·47	31½	·340
9 x 4 x 1/2	9·16	12½	·431
3/4	13·43	12	·430

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THE ARCHITECTS' JOURNAL
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INFORMATION SHEET

• 751 •

STRUCTURAL STEELWORK

Subject : Economical Beam Sections, 2

General :

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

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

This is the seventh Sheet of the series, and sets out in tabular form the comparative economic efficiency of equal and unequal angle sections for given sets of conditions.

Beam Sections :

Practically every rolled steel section may be used as a beam, although certain sections specially produced for that purpose are more efficient than others.

1. The simple sections are :
   - (*a*) Joists
   - (*b*) Channels
   - (*c*) Angles (equal and unequal)
   - (*d*) Tees
   - (*e*) Plates
   - (*f*) Troughs
   - (*g*) Flange rails
   - (*h*) Bridge rails
   - (*i*) Z sections.
2. Common compound sections are :
   - (*a*) Plated joists
   - (*b*) Plated channels
   - (*c*) Plate girders.

Special asymmetrical sections are usually of advantage when beams are subjected to longitudinal forces in addition to the transverse forces causing bending, and also when axially loaded members are subjected to bending.

Although the shape of angles renders them less suitable sections than joists or channels for beams, there are three conditions in which they may so be used :

(1) Where the imposed bending moments are so small that the smallest joists or channels would be excessive.

The weight of the smallest joists is 4 lb./ft. run (3 in. by 1½ in.) and of the smallest channel 4.6 lb./ft. run (3 in. by 1⅝ in.).

Sheet 729, the first of this series, gives many angles of lower weight per foot.

(2) Where the connections require a flange width greater than that of joists or channels.

In order to accommodate a ½ in. diameter rivet or bolt, a flange width of at least 3 in. is required on a joist. No structural joist of smaller width could be fastened by the flange with such bolts, and the smallest section would have to be a 3 in. by 3 in. joist, which has a weight of 8.5 lb. per ft. run. Angles of 1½ in. or 2 in. flange width can, however, be fastened, and their smallest weight (1½ in. by 1½ in. by 1¼ in.) is 2.34 lb. per ft.

(3) Where other than normal constructional considerations obtain.

The use of angles as purlins may be cited as one of the cases in which constructional considerations govern the choice of the section.

Angle Sections :

Both equal and unequal angles are asymmetrical sections, and the ordinary flexural formulæ (see Sheet No. 736 $f = \frac{M}{Z}$ in which f = the stress, M = the imposed bending moments and Z = section modulus) holds good only when an angle is restrained laterally, so that deflection can take place only in the direction of the load. Where this occurs, the section moduli given on the front of this Sheet in tables 1 and 2 can be used. Where an angle is not stiffened laterally, the neutral axis lies obliquely to the line of loading.

The economic efficiencies of restrained angles are set out in the two tables on the front of this Sheet. They are to be employed in the same manner as those for joists and channels given on Sheet No. 745.

Two angles of the same size may be combined to form a tee section.

Such a section loaded parallel to the stem can be regarded as symmetrical, and the value of the section modulus, independent of whether the section is stiffened laterally or not, can be taken as twice that given in the tables for a single angle.

Unequal angles are also rolled with a thickening at the end of the longer leg. They are called bulb angles, the object of the bulb being to replace the flange normally missing from the toe of the angle.

Previous Sheets :

No. 729—Basic Steel Sections,
No. 733—Mechanics of Sections, 1,
No. 736—Mechanics of Sections, 2,
No. 737—Economical Framing, 1,
No. 741—Economical Framing, 2,
and
No. 745—Economical Beam Sections, 1.

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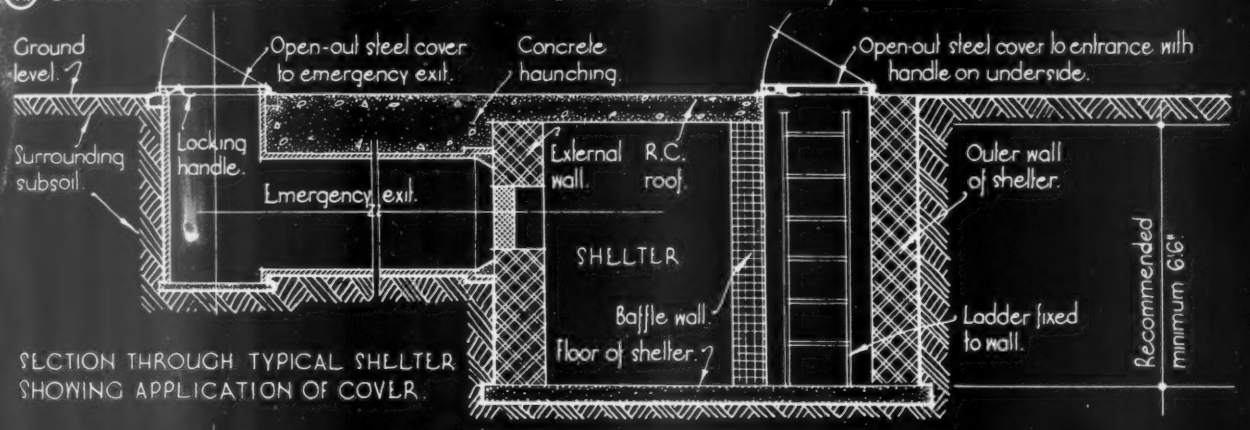
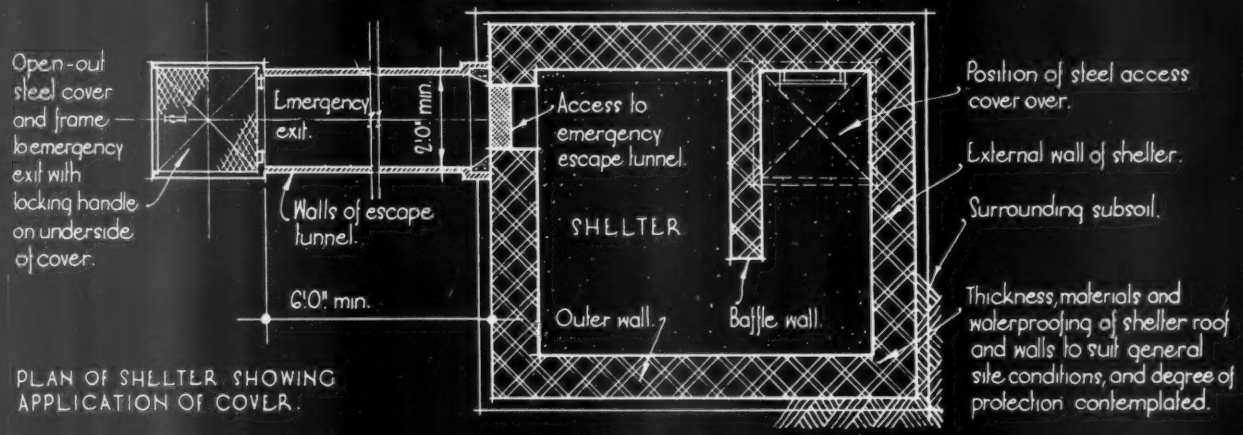
THE ARCHITECTS' JOURNAL LIBRARY OF PLANNED INFORMATION

(A) DETAILS SHOWING APPLICATION OF COVERS TO TYPICAL SUNK, GARDEN-TYPE SHELTERS:

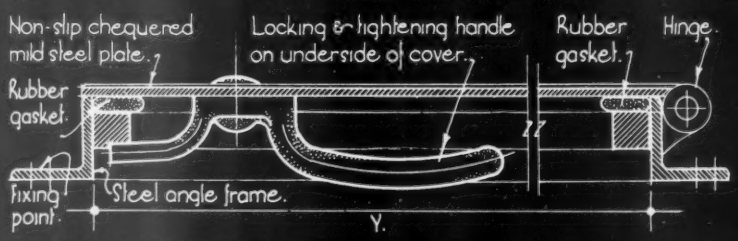


SECTION THROUGH TYPICAL SHELTER SHOWING APPLICATION OF COVER.

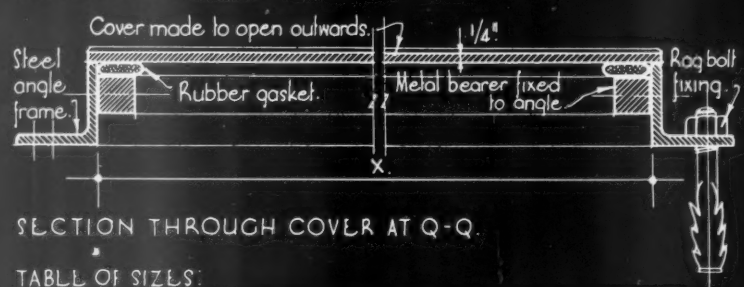


PLAN OF SHELTER SHOWING APPLICATION OF COVER.

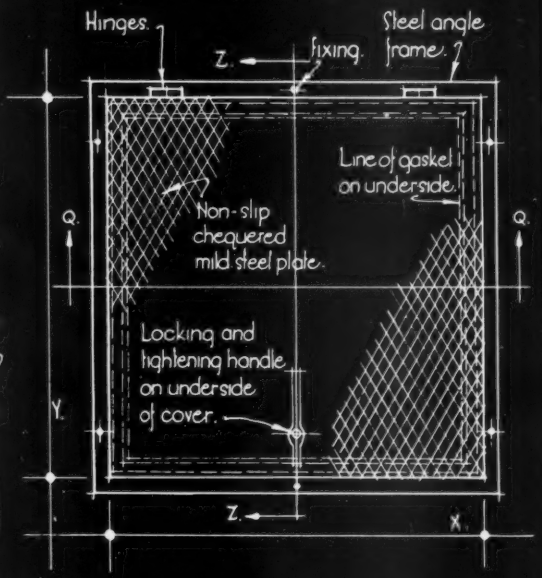
(B) DETAILS OF THE MILD STEEL COVER, RUBBER GAS SEAL AND MILD STEEL ANGLE FRAME:



SECTION THROUGH COVER AT Z-Z.



SECTION THROUGH COVER AT Q-Q.



ELEVATION OF COVER.

TABLE OF SIZES:

LENGTH 'X'	WIDTH 'Y'	LENGTH 'X'	WIDTH 'Y'
24"	18"	24"	30"
24"	24"	30"	30"

Information from Haywards Ltd.

INFORMATION SHEET : A.R.P. N°2 : GAS-PROOF STEEL COVERS & FRAMES FOR SHELTERS.
SIR JOHN BURNET TAIT AND LORNE ARCHITECTS ONE MONTAGUE PLACE BEDFORD SQUARE LONDON WC1

THE ARCHITECTS' JOURNAL
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INFORMATION SHEET

• 752 •

A.R.P.

Subject : Gas-proof Steel Access Covers and Frames for Shelters

General :

This Sheet illustrates the construction and use of gas-proof steel access covers and frames for A.R.P. shelters. The shelter diagram is intended only as a typical one for the type of cover used, and is not to be related in any part with official or local designs. No particular assumptions should be made regarding the capacity, construction, or efficiency of the structure, except in so far as these features are affected by the particular form of access and exit covers.

For instance, the shape of the covers presupposes a square entrance and emergency exit, and the type of opening gear dictates a minimum depth of the emergency exit floor beneath the cover.

Similarly, the nett sectional area of the access cover is directly related to the permissible accommodation of the shelter.

When shelters are sealed with gas-proof covers, particular attention must be paid to the question of ventilation in relation to capacity and the period of occupation.

Covers :

The covers are available in various sizes, and comprise a 2″ × 2″ welded angle frame to which is hinged the ¼″ chequered mild steel cover. The cover itself closes on to a continuous rubber gasket supported by a square metal sub-frame, into which the locking gear also fits.

Fixing :

Six drilled holes are provided around the angle frame for the rag bolt fixings. The bolts should be built into the entrance and emergency exit surrounds, and the frame bolted down in the normal manner.

Prices :

Nominal size	Thickness of Cover	Price Painted £ s. d.	Galvd. £ s. d.
24″ × 18″	¼″	4 10 0	5 5 0
24″ × 24″	¼″	5 2 6	6 0 0
24″ × 30″	¼″	5 19 6	6 19 6
30″ × 30″	¼″	6 10 0	8 0 0

Gas-proof Doors :

Gas-proof steel access doors and frames for shelters are dealt with on Sheet No. 747.

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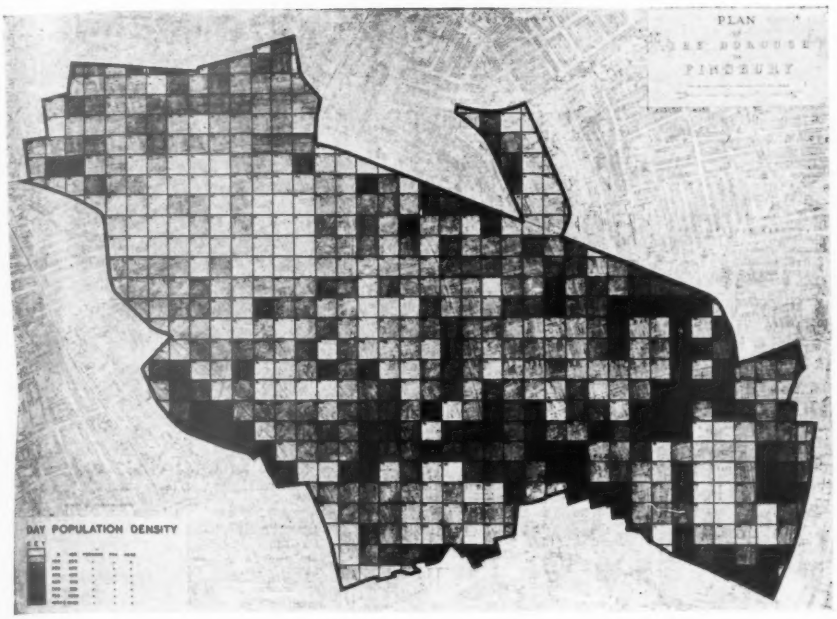


Borough of Finsbury: daytime population. Each square represents one acre: density is graded from 100 persons per acre to 1,000 and over. From "Planned A.R.P."

BOOKS

THE FINSBURY IDEA

[*By H. SPENCE-SALES*]

Planned A.R.P. By Tecton. London: The Architectural Press. Price 5s.

HISTORICALLY, defence has been a first principle in planning towns. A century of security in these islands had by 1914 produced oblivion to any threat to our serenity—the fortifications of the south-coast towns in Napoleonic times was the last evidence of defence planning. The War brought a rude awakening with the first aerial invasions, and it became apparent to many that attack from the air had created a new vulnerability, and that defence considerations might influence the pattern of national development as dynamically as did the industrial revolution.

Unhappily, post-War prosperity and expansion, coupled with a revival of the sense of security, continued the life of the old order; and to-day, after twenty years of unrestricted development, the population concentrations, the pattern of industry and the network of communications, present the most vulnerable targets in Europe.

In the last two or three years the spectre of immediate destruction from the air has brought about panic attempts to overcome the confusion—industrial movements to more secure parts of the country, commerce and business decentralizing, the re-orientation of the port systems, the dispersal of population concentrations.

The pattern of national development is faced with an organic change, and whether there is an immediate conflict or not, the seal is set on the old order—vulnerability will affect the pattern of the country as dynamically as did the industrial revolution. The stage is set for defence planning in town and country, and the age of preservation and restrictive control is past.

Planned A.R.P., by Tecton, is a treatise upon the protection of urban populations, and is, therefore, significant as dealing with one element in the defence planning of towns. It is based upon an investigation carried out for A.R.P. in the Metropolitan Borough of Finsbury. Unfortunately, its publication is shrouded with the gloom cast by the Government's condemnation of the Finsbury A.R.P. scheme and its official pronouncements upon deep shelters. Nevertheless, the book is extremely well worth having. It is written with a ruthless candour and illustrated with a profusion of extremely entertaining, if somewhat frightening, sketches by Mr. Gordon Cullen.

The theme—the necessity for deep shelters—is developed by discussing the methods of aerial attack, the effect of bombs and danger volume, and the relative values of trenches in terms of money spent and the degree of protection given. From surface shelters it moves rapidly to bomb-proof protection and the multi-story bomb-proof shelters advocated by Tecton for Finsbury, well explained by plans and sections.

The most interesting part of the book, from the point of view of the planner, is the outline of the survey carried out which, considering the difficulties met with in such work in the Metropolitan boroughs, is amazingly complete. It deals with the problem of population, its movement, its composition, and its periodic distribution—factors which, whatever the form of shelter to be provided, it is essential to know. It then deals with physical characteristics, above and below the ground, the geological formation and the existence of all services.

Upon this framework of practical considerations Tecton have planned the location of their deep shelters. Sizes are governed by the density of population to be served, their positions by the time required to reach the shelters.

The authors have formulated a few general working principles for surveys which they hope will be worth applying in a wider scale. The immediate need for surveys, competently conducted, cannot be over-emphasized, even at this stage of the work being undertaken by local authorities. There is little appreciation that A.R.P. is planning for an emergency and that certain essentials must be known before reasonable certainty of effective use can be claimed even for the strengthening of every basement within the territory of any local authority, and for such other protective measures as they may advocate. It is surprising, in fact, that a basic survey technique is not obligatory prior to formulating measures for local A.R.P.

It will be regrettable if this excellent book suffers because of the momentary obloquy cast upon the deep shelter scheme submitted by Finsbury. It can be safely said that had the authorities in all urban concentrations in this country conducted as thorough an investigation as Finsbury have promoted, there would be little cause for the anxiety so prevalent that A.R.P. on the whole is being considered incompetently, and that waste of time and labour is resulting. It is a credit to Tecton—objective, as the plea for deep shelters may be—that they have published their recommendations, and particularly their survey, and have been the first in the field to plead for planning A.R.P. One can only decry the fact that this book was not published two years ago.

•

Publications Received.

The Face of Edinburgh.—By William Power. John Smith & Sons, price 4s. 6d.

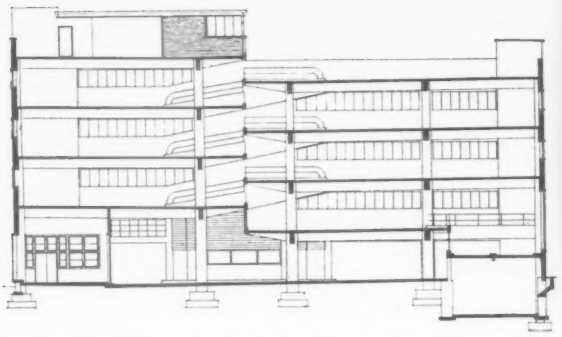
The Shape of Things to Come.—By Noel Carrington. Nicholson & Watson, price 6s.

Building Design and Construction.—By Samuely and Hamann. Chapman & Hall, price 25s.

M O T O R

DESIGNED BY RICHARD NICKSON
ASSOCIATED ARCHITECT, ALFREDO MARTINEZ

CLERESTORY AND CANTILEVERS ON GROUND FLOOR



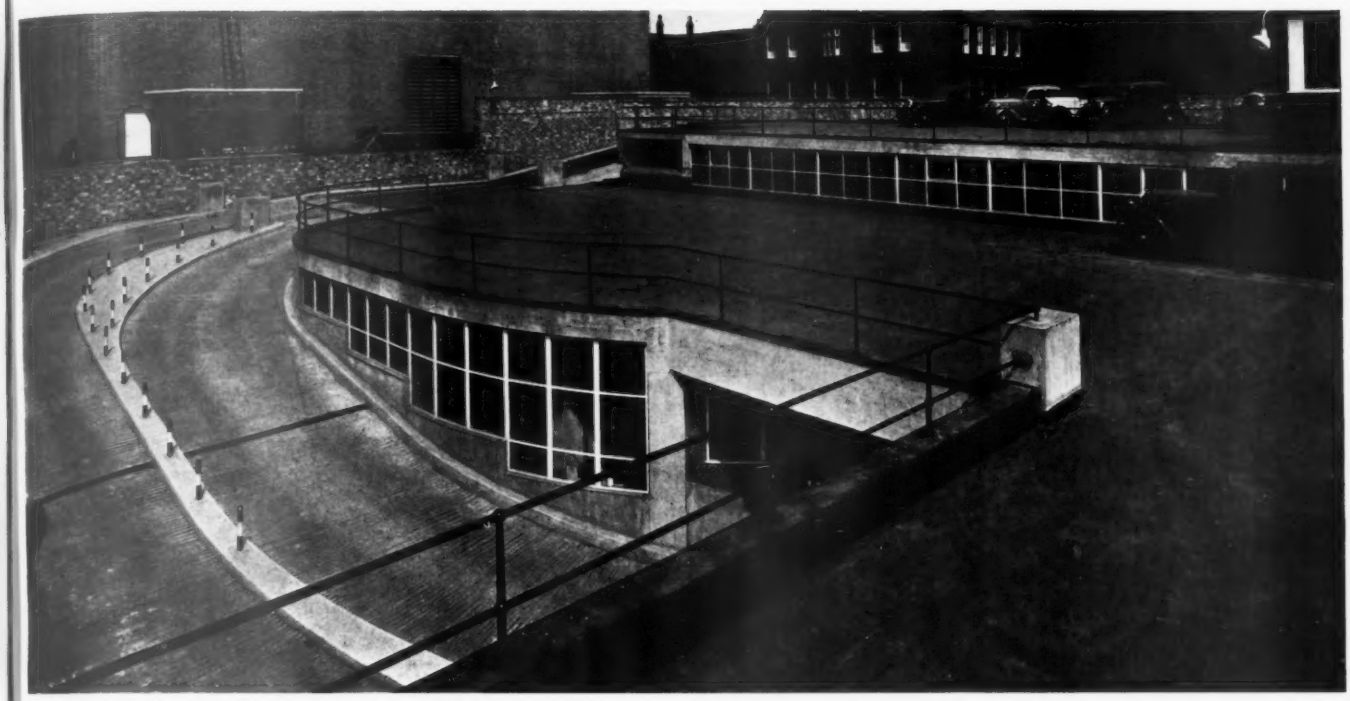
SECTION WHEN COMPLETE

PROBLEM—*At the present stage, the building consists of motor service station and showrooms, with offices, and a car park over on what will be future garage floors. Owners desired ramps in preference to lifts.*

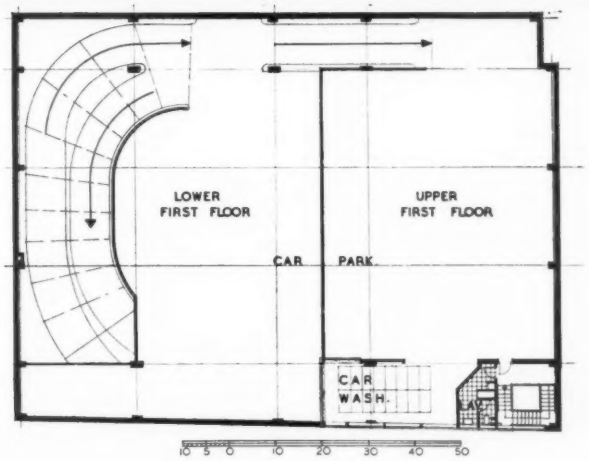
SITE—*A strictly limited site behind the Philharmonic Hall. The set-back in Myrtle Street was required by the Corporation, who also refused any traffic entrances on this street.*

THE MYRTLE STREET FRONT

SERVICE STATION, LIVERPOOL



PARKING SPACE ON PRESENT ROOFS



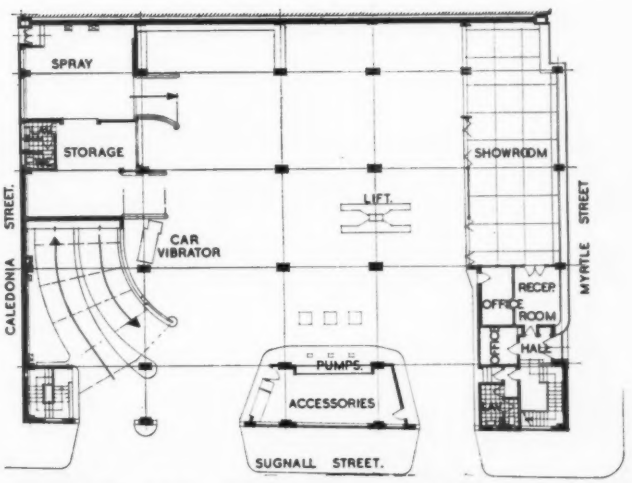
PLAN—*Planning was complicated by four factors : limited site ; building and roofs to be fully used after completion of first section ; ramps to be employed ; and showroom in front desired to have greater height than was necessary for service station behind. The problem was solved by using staggered floors. All cars enter from Sugnall Street : those for servicing or display are kept on the ground floor ; those for parking ascend the ramp and use either the present roof of the lower section of the ground floor or the roof of the higher section of the ground floor (see photograph above). It should be noticed that the enclosing walls of the upper plan are not yet built. Turning radius is 50 ft. Parking aisles are 15 ft. and carriage ways are 20 ft.*

CONSTRUCTION—*R.C. framing and floors. External walls are 11¼ in. cavity. The building is insulated from Philharmonic Hall by creosoted cork at wall junctions and by 9-in. and 2¼ in. air spaces between parallel walls. Double cantilevers, see section, were used in the centre of the building as they allowed an economical spacing of columns.*

EXTERNAL FINISHES—*2¼ in. bricks with $\frac{7}{16}$ in. horizontal joints. Showroom windows, extruded bronze. Entrance doors, black and red.*

COST—*Price per cubic ft., 7¾d. Contract price, £7,850.*

The general contractors were Messrs. R. Costain & Sons, Ltd. For list of sub-contractors and suppliers, see p. 186.

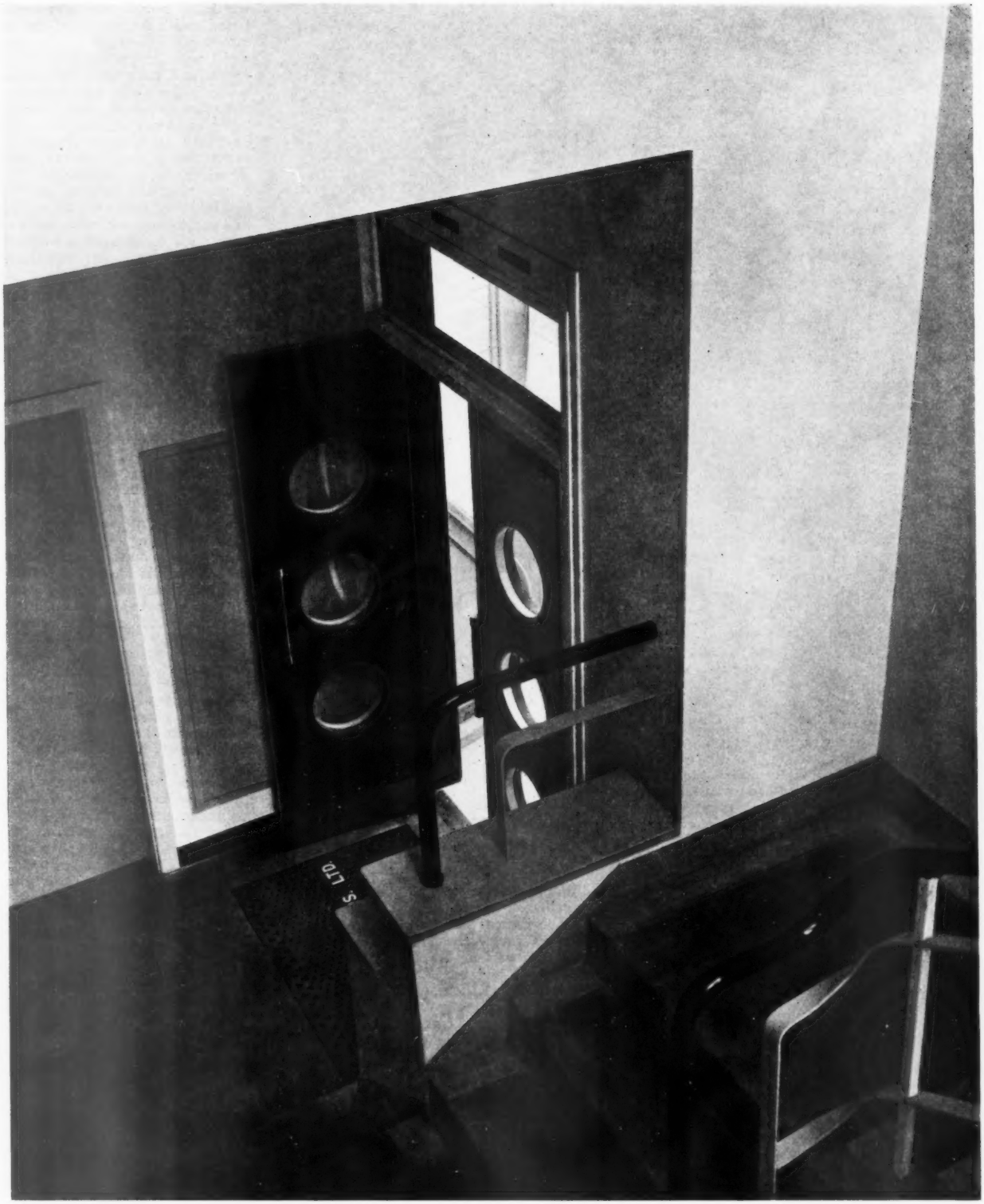


GROUND AND UPPER FLOOR (ROOF) PLANS

ENTRANCE FROM MYRTLE STREET

LOOKING FROM BALCONY INTO THE ENTRANCE HALL ON THE MYRTLE STREET FRONT. RIGHT, MAIN STAIRCASE, MYRTLE STREET FRONT.

MOTOR SERVICE STATION, LIVERPOOL. • BY RICHARD



ENTRANCE HALL FROM MYRTLE STREET

ARD NICKSON: ASSOCIATED ARCHITECT, ALFREDO MARTINEZ

TRADE NOTES

[*By PHILIP SCHOLBERG*]

Another Good Cooker

IT is not so very long since a well-designed gas or electric cooker was definitely a luxury job costing anything up to £30. Manufacturers were presumably a little timid of any radical departure from the dirt-catching corners of the older types, and small quantities kept prices higher than they should have been. But at the moment there are quite a number of cookers which are quite up to the standard set by refrigerators and wireless sets. Has anybody, by the way, ever been sufficiently grateful to Mr. Murphy and Mr. Gordon Russell for showing the wireless trade that cabinets could be decently designed? The illustration at the head of these notes shows a design which quite possibly might never have been produced if the public had not been accustomed to simple shapes by the work of the better wireless manufacturers. Nor is a simple shape the only advance, for it is only a few years since thermostatic control was introduced for ovens, while hot plates, instead of being a fearsome and uncleanable tangle of cast-iron bars, are now enamelled sheets which can be cleaned with a damp rag. Prices have come down, too, this example of Messrs. Main's selling at £13 odd with various extras such as hinged covers and plate racks at extra cost. Standard finish is white or ivory enamel, and the hot cupboard, seen on the left of the illustration, can be finished to match any cooker. Judging by its appearance, the hot cupboard is an older design, but it is quite seemly and would probably be a useful fitting in a comparatively large household. The price of the wall-fixing model is £2 12s. 6d., and gas consumption is only 3 cu. ft. an hour. Floor space taken up by the cooker measures 20 by 21 in., and the height to the top of the hot plate is 35¾ in.—(*R. and A. Main, Ltd., Gothic Works, Falkirk.*)

The Safety of Electrical Appliances

Continental electrical equipment often looks outrageously dangerous when it is judged by standards current in this country, hair-dryers and toasters being designed to fall apart on the slightest provocation, and switches on table-lamps to carry about enough current for a pocket torch. None the less the French are very particular about the proper earthing of supplies, and a number of other countries have quite stringent regulations. I have just discovered, for instance, that both the Norwegians and the Belgians insist that every portable fire must have a mercury switch so that it will be turned off automatically if it is knocked over, while the elements must be guarded much more carefully than they are here. I do not know whether any official figures are published to show the number of deaths every year from faulty apparatus, but I suspect that the number is quite large; and, though the electrical industry quite rightly complains about the airy way in which the press attributes fires to electrical sources, the fact remains that the average householder is not too sensible, and that certain types of equipment fairly ask for trouble. How many people lightheartedly make toast with a metal fork in front of an electric fire and leave the prongs sticking out nearly into the element? Wiring, on the other hand, provided that it is carried out by a properly qualified contractor, is as a rule intelligently done, but in the older types of property the work is often horrifyingly bad. Only a few weeks ago an unfortunate slum youth was killed because the bath was in a cupboard under the stairs and the intake and meters were there, too. In spite of the awful warnings which it is still only too easy to find, the main danger in the average house is from the apparatus itself. The risk of severe shock, since people *do* learn by experience, may not be very great, but electricity is such a flexible source of energy that it is too often made to do things for which it was never meant. I can think of two offices in London where it is the standard practice to lay the electric fire on its back to boil the water for tea: electric irons with thermostats are the exception rather than the rule; and the insurance companies must pay out on a number of claims which are due to habits of this kind.

American insurance companies, however, take the surprising view that it is a very good thing not to have any fires at all, for then they will be able to reduce their premiums, whereas any insurance broker in this country will tell you that most companies are quite pleased to have a small claim in the first year or so, because then you are certain to go on paying their premium for ever. So the American companies have exerted a considerable influence on the design of equipment, and most of it is probably a good deal safer than the equivalent fitting over here. One cannot blame the manufacturers for supplying what the public wants, but it is more than likely that if the insurance companies were to think over the question seriously most apparatus could be made much safer.

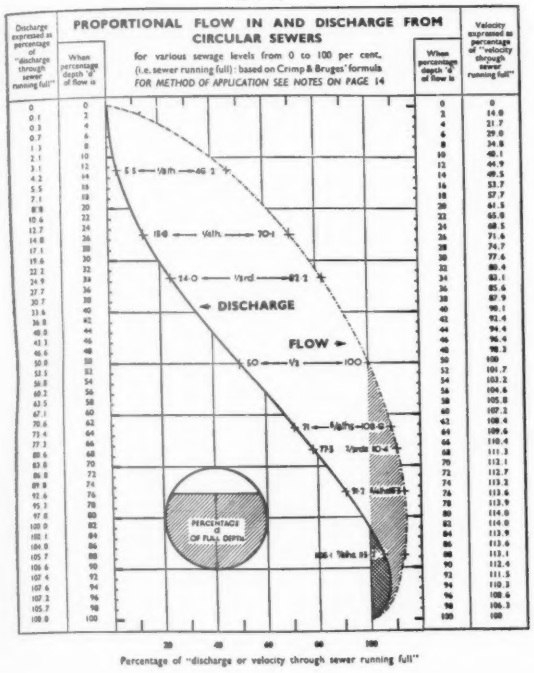
Two Boiler Specifications

Two new specifications (Nos. 854 and 855) have been added to the group of B.S.S. dealing with land boilers. These cover welded steel boilers for steam central heating (854) and for hot water central heating and hot water supply (855). The steam specification covers boilers for operation at pressures not exceeding 30 lb., while the hot water one is for boilers with more than 5 sq. ft. of heating surface and for operation at pressures not exceeding 150 ft. head or at temperatures exceeding 212 deg. F. Both specifications provide for the materials to be used and give formulæ to be used in calculating scantlings. Further sections cover the requirements of construction and workmanship, forms of joints to be used, the mountings and other appliances section being amplified for steam boilers by the inclusion of a clause on pressure gauges.—(*The British Standards Institution, 28 Victoria Street, London, S.W.1.*)

Sewerage and Drainage

Bulletin S.G.2 from the Clay Products Technical Bureau gives details of the tests which have been worked out at the Mellor laboratories of the Refractories Research Association, and describes the methods of testing for resistance to abrasion, permeability, and resistance to acids and certain types of water. That salt-glazed ware stands up very well under severe tests most architects will be prepared to believe, but I refer to this publication because it contains a table (reproduced overleaf) which should be very useful to borough officials who are concerned with the choice of pipe sizes. In bulletin S.G.1 a table of the rate of flow and discharge from circular sewers running full was given. The table reproduced gives the factors by which the given velocities and discharges must be

Table V.



The table referred to on page 186.

multiplied to arrive at the velocities and discharges for various depths of flow up to the maximum with the sewer running full. As a simple example of its use, assume that a pipe size is chosen such that the depth of flow is 25 per cent. for minimum flow periods (0.0013 cu. ft. per minute per head of population, then the depth for a peak period (0.0066 cu. ft. min.) will be approximately 60 per cent., leaving a 40 per cent. capacity for sudden overloads. The corresponding proportional velocities will be 70 and 107 per cent. of the running full velocity, so that if 3 ft. per second is assumed as the minimum to prevent silting, the maximum rate will be about 4½ ft. per second, and even under the worst surcharge it will not exceed 5 ft. per second, a speed which will not induce scouring in salt-glazed pipes. Both these booklets will be useful in any municipal office.—(*The Clay Products Technical Bureau of Great Britain, 90 Ebury Street, London, S.W.1.*)

Obscuring Windows for A.R.P.

The Home Office says that windows must be obscured so that blackouts will be effective, and a number of manufacturers have started providing blinds or sheets of wallboard to cover the glazing. Simple and effective measures which will work very well in practice, but I have a private weakness for a very elegant method which has been worked out by Metropolitan Vickers. They base their idea on special filters for all lamps and a special light-blue lacquer on all windows, the resultant "complementary colour" system allowing no artificial internal light to pass outwards through the windows into the sky. The result of this is that, provided existing daylighting is reasonable, enough light will still pass through the lacquer for normal work, and the artificial lighting can be turned on as and when necessary without waiting for the windows to be obscured. Sodium lamps are used with a tinted vacuum jacket which is detachable, so that in times of peace the lighting system is quite normal. The jackets reduce the light emitted by about 40 per cent., but sodium lamps give a considerably greater output than the gas-filled types, so that lighting costs should still be reasonable. It should be realized that the lacquer and filters are arranged to work only with the light from the sodium lamps, and that other light sources cannot be used, nor can any processes such as welding be carried on. The only snag seems to be that, if a bomb does fall in the neighbourhood, quite a large area of the glazing may disappear in a fine powder and take the lacquer with it.—(*Metropolitan Vickers Electrical Co., Ltd., 1 Kingsway, London, W.C.2.*)

Correction

Messrs. Mortimer, Gall ask me to make it clear that the sterilizing tank of their Bell water sterilizing equipment is finished with a chlorine-resisting compound which is flexible enough to survive a considerable amount of damage to the tank. I said that the tank was in porcelain enamel, a material which this firm regards as unsuitable, since it would be liable to chip and crack under war conditions.—(*Mortimer, Gall & Co., Ltd., 115 Cannon Street, London, E.C.4.*)

THE BUILDINGS ILLUSTRATED

ST. RICHARD'S HOSPITAL, CHICHESTER (pages 168–172). Architect: C. G. Stillman. General contractors: Anglo-Scottish Construction Co., Ltd. The sub-contractors and suppliers included: G. Asserati, Ltd., asphalt; Trussed Concrete Steel Co., Ltd., and British Reinforced Concrete Engineering Co., Ltd., reinforced concrete; Nutbourne Brick Works, Ltd., bricks; Blokcrete Co., Ltd., artificial stone, and stone; Matthew T. Shaw & Co., Ltd., structural steel; Pilkington Bros., Ltd., Glass; J. A. King & Co., Ltd., partitions — clinker concrete partition blocks; B. Holden & Co., Ltd., and Granwood Flooring Co., Ltd., patent flooring; G. N. Haden and Sons, Ltd., central heating; Benham and Sons, Ltd., "Panelite" heating panels; William Sugg & Co., Ltd., gas fixtures (gas incinerators); Hall Boilers, Ltd., Halco boilers; B. French, Ltd., electric wiring; Falk, Stadelmann & Co., Ltd., Fredk. K. Thomas & Co., Ltd., and General Electric Co., Ltd., electric light fixtures; Santon, Ltd., electric heating—electric thermal storage heaters; Burn Bros., Ltd., plumbing; Shanks & Co., Ltd., and Leeds Fireclay Co., Ltd., sanitary fittings; Sumerling & Co., Ltd., sterilizing equipment; James Gibbons, Ltd., door furniture; Crittall Manufacturing Co., Ltd., casements and window furniture; Gent & Co., Ltd., bells; Coldair, Ltd., refrigerating plant and cold cabinets; Frank V. Magrini, Ltd., food trolleys; Granitese, Ltd., seamless cement glazing; Casebourne & Co., Ltd., Pioneer plaster; Light Steel Sectional Constructions, Ltd., metalwork (bedside screens); Carter & Co., Ltd., tiling; Hammond Bros. and Champness, Ltd., lifts; Magneta Time Co., Ltd., clocks; Horseley Bridge and Thomas Piggott, Ltd., water-softening plant; W. N. Froy and Sons, Ltd., mantels.

MOTOR SERVICE STATION, MYRTLE STREET, LIVERPOOL (pages 182-185). Architect: Richard Nickson. Associated Architect: Alfredo Martinez. General contractors: Richard Costain and Sons, Ltd. Sub-contractors and suppliers included: James Kenny, demolition; Penmaenmawr and Trinidad Lake Asphalt Co., Ltd., asphalt; Trussed Concrete Steel Co., Ltd., reinforced concrete; Chance Bros. & Co., Ltd., and Pilkington Bros., Ltd., glass; Henry Hope and Sons, Ltd., patent glazing; Killick and Cochran, central heating; Winstanley and Lambert, and General Electric Co., Ltd., electric light fixtures and ventilation; Quiggin Bros., Ltd., door furniture; E. Wilson (Collingwood), Ltd., folding gates; Sefton Lift and Shutter Co., Ltd., rolling shutters; Synchromatic Time Recording Co., Ltd., clocks; Duplicate General Electric Co., signs.

Manufacturers' Items

Practically all the large industrial pavilions, including the tower and the concert hall, at the Glasgow Exhibition were constructed in steel. The British Steelwork Association have therefore issued a brochure, entitled "An Achievement in Structural Steelwork," devoted to numerous photographs of these pavilions. Several of the illustrations show the buildings under construction.

•

Messrs. Jenson and Nicholson, of Jenson House Stratford, E.15, have just issued a booklet entitled, "Camouflage in Principle and Practice." Copies may be obtained, free of charge, on application to the firm at the above address.

•

Henley's have recently issued a booklet (No. 424) dealing with cables for luminous discharge tube sign installations. This type of cable is fully described and much useful information on choice and installation is given. Copies can be obtained on application to W. T. Henley's Telegraph Works Co., Ltd., Holborn Viaduct, London, E.C.1.

•

We have received from Messrs. Turners Asbestos Cement Co. branch of Turner and Newall, Ltd., No. 5 of their fortnightly booklets dealing with problems which have been solved by the use of asbestos-cement. This issue deals with the use of a special form of asbestos-cement sheeting for roller-skating floors and interesting photographs and data, including drawings, are given which should make this publication extremely useful to anyone interested in the construction of roller-skating rinks. From the index which is given it appears that the subjects included so far in this series are wall finishes, a park bandstand, condensation in farm buildings, and a temporary sewer.

F

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

ON the following pages appears Prices of Materials —Part I, with the prices, last published on June 29, brought up to date.

Immediately below, Messrs. Davis and Belfield mention the principal changes which have occurred in the last month. Similar notes will be published on this page each month.

NOTES ON PRICE CHANGES

Timber prices are particularly unstable. The prices given are the latest obtainable before going to press, but they should be verified by actual quotation.

O. A. DAVIS, F.S.I.

● *Items marked thus have risen in price since last quotation on June 29.*

✱ *Items marked thus have fallen in price since last quotation on June 29.*

★ *ANSWERS TO QUESTIONS*

While the JOURNAL, naturally, cannot presume to undertake the responsibilities of a quantity surveyor, it has arranged with the authors of this Supplement to answer readers' questions regarding any matter that arises over their use of the Prices Supplement in regard to their work, without any fee. Questions should be addressed to the Editor of the JOURNAL, and will be answered personally by Messrs. Davis and Belfield. As is the normal custom, publication in the JOURNAL will omit the name and address of the enquirer so that it is unnecessary to write under a pseudonym.

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

1. Current Market Prices of Materials, Part I.
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.

★ *The previous complete Supplement is contained in the issues of the* JOURNAL *for June 29, July 6, July 20 and July 27.*

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.

PART 1

CURRENT MARKET PRICES OF MATERIALS—I

BY DAVIS AND BELFIELD

CONCRETOR

Cements

All delivered in paper bags (20 to the ton) free and non-returnable.

		4 Tons and over	In 80-ton freights F.A.S. Safe Wharf in River Thames, London Area.
*Portland	per ton	41/–	38/6
*Rapid hardening	per ton	47/–	44/6
*Water repellent	per ton	71/–	—
Atlas White (1 barrel 376 lbs.)			per barrel 44/–
		1 ton upwards	10 tons and over
*Colorcrete rapid hardening, Buff and red	per ton	68/–	—
*Colorcrete Rapid hardening khaki	per ton	89/–	69/–
*Colorcrete Rapid hardening blue	per ton	112/–	102/–
Colorcrete non rapid hardening	per ton	from 139/–	to 309/–
Snowcrete	per ton	175/–	
		1–10 cwts.	11–15 cwts. 16–20 cwts. 1 ton and upwards
Ciment Fondu, delivered Central London area	per cwt.	7/9	7/3 6/– 6/–

Aggregate and Sands (Full Loads)

2″ Unscreened ballast	per yard cube	5/9
¾″ (Down) Washed, crushed and graded shingle	per yard cube	6/–
½″ (Down) Ditto	per yard cube	7/3
2″ Broken brick	per yard cube	10/6
¾″ Ditto	per yard cube	11/9
Washed pan breeze	per yard cube	5/3
Coke breeze 1″ to dust	per yard cube	12/6
⅛″ Sharp washed sand	per yard cube	8/–
White Silver Sand for white cement (one ton lots)	per ton	25/–
(For Sands for Bricklaying and Plastering see respective trades)		

Pavings

Brick hardcore	per yard cube	2/9
Concrete ditto	per yard cube	3/9
Clean furnace clinker and boiler ashes	per yard cube	3/3
Coarse gravel for paths	per yard cube	6/9
Fine ditto	per yard cube	9/6
Clean granite chippings	per ton	18/6
Red quarry tiles, 6″ × 6″ × 7/8″	per yard super	6/–
Ditto 6″ × 6″ × 5/8″	per yard super	5/–
Buff ditto, 6″ × 6″ × 7/8″	per yard super	6/6
Ditto 6″ × 6″ × 5/8″	per yard super	5/6
Hard red paving bricks	per 1,000	150/–

Reinforcement

Basis price for mild steel rods, ¼″ diameter and upwards, from London stocks	per ton	£12 15 0
Extras for:—		
3/16″ and ¼″ diameter	per ton	10/–
7/16″ diameter	per ton	15/–
⅜″ diameter	per ton	20/–
9/16″ diameter	per ton	30/–
½″ diameter	per ton	40/–

CONCRETOR—(*reinforcement continued*)

9/16″ diameter	per ton	60/–
Lengths of 40 ft. to 45 ft.	per ton	10/–
Lengths of 45 ft. to 50 ft.	per ton	15/–

Sundries

Retarding liquid, in 5-gallon drums (for exposing aggregate)	per gallon	20/–	Ex Warehouse, Southwark Bridge. Drums chargeable and credited, if returned.
Ditto. (for obtaining a bond)	per gallon	12/6	

BRICKLAYER

Common Bricks

Rough stocks	per 1,000	67/6
Third stocks	per 1,000	52/6
Mild stocks	per 1,000	69/6
Sand limes	per 1,000	50/–
* Phorpres pressed Flettons	per 1,000	46/3
* Phorpres keyed Flettons	per 1,000	48/3
Blue Staffordshire wirecuts	per 1,000	160/–
Lingfield engineering wirecuts	per 1,000	95/–
Breeze fixing bricks	per 1,000	57/6
Firebricks, best Stourbridge 2½″	per 1,000	155/–
Firebricks, best Stourbridge 3″	per 1,000	190/–

* At King's Cross. For delivery in W.C. district add 4/3 per 1,000.

Facing and Engineering Bricks

Sand Limes, No. 1	per 1,000	85/–
Sand Limes, No. 2	per 1,000	70/–
* Phorpres rustic Flettons	per 1,000	66/3
Midhurst Whites	per 1,000	75/–
Hard stocks, firsts	per 1,000	93/–
Hard stocks, seconds	per 1,000	86/–
Sand-faced, hand-made reds	per 1,000 from	115/–
Sand-faced, machine-made reds	per 1,000 from	110/–
Red rubbers (9¼-in.)	per 1,000	300/–
Uxbridge Flints (white)	per 1,000	67/6
Uxbridge Flints (creams, light greys, etc.) per 1,000	from 85/–	to 100/–
Dunbricks (concrete), multi reds, ex works	per 1,000	72/–
Dunbricks (concrete), multi lavender, ex works	per 1,000	75/–
Southwater engineering No. 1 (first quality red pressed)	per 1,000	145/–
Southwater engineering No. 2 (second quality red pressed)	per 1,000	125/–
Blue pressed	per 1,000	180/–

* At King's Cross. For delivery in W.C. district add 4/3 per 1,000.
Discount if accompanied by order for pressed 2/– per 1,000.

*** Items marked thus have fallen since June 29**

CURRENT PRICES

BY DAVIS AND BELFIELD

BRICKLAYER AND DRAINLAYER

BRICKLAYER—(*continued*)

White, Salt and Coloured Glazed Bricks (9″ × 4½″ × 2⅞″)

The following prices are subject to 2½ per cent. trade discount and 2½ per cent. cash discount, and include delivery to any railway station (minimum 4-ton loads). Add 10/– per 1,000 for delivery in London area.

Prices per 1,000	White, Ivory and Salt Glazed				Buff, Cream and Bronze		Other Colours		All Colours		
	Best			Seconds			Best		Best		Seconds
	£	s.	d.	£ s. d.	£	s. d.	£	s. d.	£	s. d.	£ s. d.
Stretcher, glazed one side ..	24	0	0	22 0 0	26	0 0	29	10 0	23	0 0	23 0 0
Header, glazed one end	23	10	0	21 10 0	25	10 0	29	0 0	22	10 0	22 10 0
Double stretcher, glazed two sides	32	10	0	30 10 0	34	10 0	38	0 0	31	10 0	31 10 0
Double header, glazed two ends	29	10	0	27 10 0	31	10 0	35	0 0	28	10 0	28 10 0
Quoin, glazed one side and one end	30	10	0	28 10 0	32	10 0	36	0 0	29	10 0	29 10 0

Limes and Sand

		1-ton lots	6-ton lots
Lime, greystone	per ton	42/–	37/6
Lime, chalk	per ton	42/–	37/6
Lime, blue Lias (including paper bags)	per ton	47/6	42/6
Lime, hydrated (including paper bags)	per ton	47/–	42/6
Washed pit sand	per yard cube		7/6

(For cements, *see* "Concretor.")

Hire of jute sacks charged at 1/6 and credited at 1/6. If left, charged at 1/9.

Sundries

Wall ties, self coloured	per cwt.	19/–
Wall ties, galvanized	per cwt.	24/6
Hoop iron, black	per cwt.	25/–
D.P.C. slates, size 18″ × 9″	per 1,000	150/–
D.P.C. slates, size 14″ × 9″	per 1,000	117/6
D.P.C. slates, size 14″ × 4½″	per 1,000	59/–
*Ledkore D.P.C. Grade A	per foot super	5d.
*Ledkore D.P.C. Grade B	per foot super	6½d.
*Ledkore D.P.C. Grade C	per foot super	8d.

* Trade discount 5 per cent. and cash discount 5 per cent. Prices include delivery on minimum of £4 orders.

	9″×3″	9″×6″	9″×9″	12″×9″	14″×9″
Earthenware airbricks: red, blue, vitrified and buff terra cotta each	–/8	1/4	2/4	4/–	6/8
	9″×3″	9″×6″	9″×9″	12″×6″	12″×9″
Black cast iron, School Board pattern airbricks per doz.	3/–	5/6	11/–	11/–	20/–
Galvanized ditto per doz.	5/6	11/–	22/–	22/–	40/–
Black hit and miss cast iron ventilators per doz.	12/–	15/–	21/–	21/–	36/–
Galvanized ditto per doz.	24/–	30/–	42/–	42/–	72/–
	1′ 0″	1′ 6″	2′ 0″	2′ 6″	3′ 6″	5′ 0″
Buff terra cotta chimney pots .. .. each	2/6	3/–	4/4	5/9	13/4	22/6
Fireclay .. per ton	45/–					

Wall reinforcement supplied in standard rolls containing 25 yards lin.
2″ wide black japanned per roll 2/1
2″ wide galvanized .. per roll 3/2
2½″ wide black japanned per roll 2/7½
2½″ wide galvanized .. per roll 3/10½
} Greater widths pro rata 2½″ price carriage paid on orders of £5. Discounts for quantities.

Partitions

		2″	2½″	3″	4″
Breeze ..	per yard super	1/3½	1/5½	1/8	2/3
Clay tiles ..	per yard super	2/3	2/6	2/9	3/1
Pumice ..	per yard super	2/8	3/–	3/6	4/–
Plaster ..	per yard super	2/3	2/9	3/3	4/–

BRICKLAYER—(*continued*)

Shepwood Partition Bricks size 9″ × 2⅞″ and 2½″ on bed. Terms, as for Glazed Bricks

Prices per 1,000 except where stated per brick	White, Ivory and Salt Glazed		Buff, Cream and Bronze	Other Colours	All Colours
	Best	Seconds	Best	Best	Seconds
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Double stretcher, glazed two sides	32 10 0	30 10 0	34 10 0	38 0 0	31 10 0
Single stretcher, glazed one side	24 0 0	22 0 0	26 0 0	29 10 0	23 0 0
	Each	Each	Each	Each	Each
Round end glazed two sides and one end ..	–/10½	–/10	1/0½	1/0½	–/10½

Gas Flue Blocks

		Single Flues	Double Flues
Straight blocks	each	1/1	1/11
Building in set	per set of 3	2/8	4/10
Cover blocks	each	1/5	3/–
Raking blocks 45°	each	2/9	3/11
Raking blocks 60°	each	1/11	2/10
Offset blocks	each	3/4	4/10
Closer blocks	each	1/1	1/11
Closer flashing blocks	each	1/–	1/8
Straight flashing blocks ..	each	1/–	1/8
Terminal and cap	per set	6/9	11/6
Middle terminal and cap ..	per set	6/3	10/9
End terminal and cap	per set	6/6	11/3
Corbel block	each	4/10	3/2
Gathering block	each	—	9/8

DRAINLAYER

Agricultural Pipes

		2″	3″	4″	6″
Pipes in 12″ lengths ..	per 1,000	67/6	92/6	120/–	210/–

(Delivered in full loads Central London Area.)

Salt Glazed Stoneware Pipes and Fittings

		4″	6″	9″
Pipes (2′ lengths)	each	1/8	2/6	4/6
Bends, ordinary	each	2/6	3/9	6/9
Single Junction, 2′ long	each	3/4	5/–	9/–
Yard Gulley, without grating ..	each	6/3	6/10½	11/3
Ordinary round or square Grating, painted	each	–/7½	1/3	2/6
Ordinary round or square Grating, galvanized	each	1/0½	2/1	4/4½
Extra for Inlets, horizontal	each	1/6	1/6	1/6
Extra for Inlets, vertical	each	2/3	2/3	2/3
Intercepting Trap with Stanford Stopper	each	17/6	22/6	37/6
Grease and mud interceptor with bucket for removing silt and grease for 6″, 9″ and 12″ drains, with iron grating, painted	each		20/–	
Ditto, with iron grating galvanized	each		21/10½	

The above prices to be varied by the following percentages for the different qualities given. All subject to 2½ per cent. cash discount.

	British Standard	British Standard Tested
Orders for 2 tons and over	Less 20%	Plus 5%
Orders under 2 tons, 100 pieces upwards	Less 2½%	Plus 22½%
Orders under 2 tons, less than 100 pieces	Plus 7½%	Plus 32½%

	Best	Seconds
Orders for 2 tons and over	Less 27½%	Subject to 15% off the price of best quality for all sizes
Orders under 2 tons, 100 pieces upwards	Less 10%	
Orders under 2 tons, less than 100 pieces	Nett	

CURRENT PRICES

BY DAVIS AND BELFIELD

DRAINLAYER AND MASON

DRAINLAYER—(*continued*)

Cast Iron Drain Pipes and Fittings

Socket and Spigot Pipes :—

Weight (per 9 ft.)	Size	9 fts.	6 fts.	4 fts. each	3 fts. each
1 . 1 . 8	4″ per yard ..	6/2	6/11	11/–	8/4
1 . 1 . 20	4″ per yard ..	6/5	7/1	11/3	8/7
2 . 0 . 6	6″ per yard ..	9/6	11/4	18/3	14/7
4 . 0 . 2	9″ per yard ..	17/3	22/7	39/2	29/10

Socket and Spigot Pipes :—

Weight (per 9 ft.)	Size	2 fts.	18 ins.	12 ins.	9 ins.
1 . 1 . 8	4″ each	6/11	6/2	5/5	4/11
1 . 1 . 20	4″ each	7/–	—	—	—
2 . 0 . 6	6″ each	10/11	—	—	—
4 . 0 . 2	9″ each	—	—	—	—

Tonnage Allowances :—
Orders up to 2 tons nett.
Orders 2 to 4 tons less 2½%
Orders 4 tons or over less 5%

		4″	6″	9″
Bends	each	6/1	12/8	39/–
Single junctions	each	10/9	21/11	67/3
Intercepting traps	each	36/7	46/10	121/11
Gulleys ordinary trapped ..	each	14/2	—	—
Extra for inlet 4″..	each	3/8	—	—
Grease Gulley trap	each	117/6	—	—
H.M.O.W. large socket gulley trap with 9″ gulley top and heavy grating and one back inlet ..	each	18/7	44/10	—

Cast Iron Inspection Chambers

The larger figures below refer to the main pipes and the smaller figures to the branches

	4″×4″ each	6″×4″ each	6″×6″ each	9″×6″ each	9″×9″ each
Straight chambers with one branch one side ..	36/1	46/10	51/8	109/8	124/4
Straight chambers with two branches one side..	55/7	65/4	77/–	148/8	185/3
Straight chambers with three branches in all ..	65/4	75/1	89/2	162/10	—
Straight chambers with four branches in all ..	75/1	84/10	101/4	173/5	—
Straight chambers with three branches one side	69/3	84/10	98/6	—	—
Straight chambers with four branches in all ..	79/–	94/7	110/8	—	—
Straight chambers with five branches in all ..	88/9	104/4	122/10	—	—
Straight chambers with six branches in all ..	98/6	114/1	135/–	—	—
Straight chambers with four branches one side	92/8	108/9	131/2	—	—
Straight chambers with five branches in all ..	102/4	118/3	143/4	—	—
Straight chambers with six branches in all ..	112/2	128/–	155/6	—	—
Straight chambers with seven branches in all ..	121/10	137/9	167/8	—	—
Straight chambers with eight branches in all ..	131/8	147/6	179/10	—	—

The branches to the above are at 135°

		4″	6″
Extra for branches between 135° and 180°	each	7/4	7/4
Extra for branches between 90° and 135° other than standard angles	each	5/10½	5/10½

		4″×4″	6″×4″	6″×6″
Curved chambers, no branch 90°–112½°	each	26/10	—	37/1
Curved chambers, no branch 135°	each	26/10	—	37/1
Curved chambers, one branch 135°	each	33/2	46/9	52/8
Curved chambers, two branches 135°	each	39/–	63/5	74/1

Channels in White Glazed Ware (Unselected Quality)

		4″	6″	9″
Half round straight channels, 6″ long ..	each	2/4	3/2	5/3
Half round straight channels, 12″ long ..	each	3/3	4/5	6/11
Half round straight channels, 18″ long ..	each	4/–	5/3	8/5
Half round straight channels, 24″ long ..	each	4/8	6/4	10/6
Half round straight channels, 30″ long ..	each	5/10	7/11	13/2
Half round straight channels, 36″ long ..	each	7/–	9/6	15/9
Half round ordinary or long channel bends	each	8/5	12/11	21/–
Half round ordinary or short channel bends	each	6/–	8/5	—
Three-quarter round ordinary branch bends	each	8/1	11/8	—
Three-quarter round ordinary branch bends, midgets	each	7/3	—	—

		6″×4″	9″×6″
Half round taper channels 24″ long ..	each	7/10	11/3
Half round taper channel bends	each	10/3	17/9

These prices are subject to 20% discount.

DRAINLAYER—(*continued*)

Channels in Brown Glazed Ware

		4″	6″	9″
Half round straight channels 24″ long ..	each	1/3	1/10½	3/4½
Half round straight channels 30″ long ..	each	—	—	4/2½
Ditto, short lengths	each	1/3	1/10½	—
Half round ordinary channel bends ..	each	1/10½	2/9½	5/0½
Ditto, short	each	1/10½	2/9½	—
Ditto, long	each	3/9	5/7½	10/1½
Three-quarter round branch bends ..	each	5/–	7/6	—

		6″×4″	9″×6″
Half round taper channels 24″ long ..	each	3/9	6/9
Half round taper channel bends ..	each	4/8½	8/5½

The above prices are subject to the same discounts as those given for "Best" quality salt glazed stoneware pipes.

Manhole Covers

		Black	Galvanized
24″ × 18″ single seal for foot traffic. (Weight 0.3.0 in lots of 24)	each	14/6	25/9
24″ × 18″ single seal for light car traffic. (Weight 2 cwt. in lots of 24)	each	38/9	65/3
24″ × 18″ Wood Block pattern. For road traffic. (Weight 3 cwts.)	each	Coated 63/–	

		Fine Cast	Galvd.
Cast step irons, 13½″ long, 6″ wide, 9″ in wall, approximate weight 5½ lbs. each	per dozen	14/9	25/6

		4″	6″
Galvanized fresh air inlets with cast brass fronts (L.C.C. pattern)	each	5/6	20/8

MASON

Yorkstone

Building quality Robin Hood and Woodkirk Blue Stone.

Blocks scrappled, random sizes ..	per foot cube	4/6
Add for blocks to dimension sizes ..	per foot cube 6d.	(each dimension)
Templates with sawn beds, edges rough (up to 4 ft. super and not over 2′ 6″ long)	per foot cube	5/–
Templates with sawn beds, sawn one edge	per foot cube	6/–
Templates with sawn beds, sawn two edges	per foot cube	7/–
Prices f.o.r. Yorkshire, railway rate to London Station per ton. (Minimum 6-ton loads.)		18/3

Ancaster Stone

Freestone, random blocks	per foot cube	3/6
Brown weather bed stone selected for polishing all brown blocks	per foot cube	8/–
Brown and blue weather bed stone selected for polishing	per foot cube	7/–

Prices f.o.r. Ancaster, railway rate to London Station approximately 11½d. per foot cube (minimum 6-ton loads).

White Mansfield Stone

Random blocks (yellow bed) for dressings	per foot cube	4/–
Random blocks (hard middle bed) for steps, pads, pavings and copings	per foot cube	3/6
Prices f.o.r. Mansfield, railway rate to London station, 6 ton lots	per foot cube	1/2

Bath Stone

Random blocks, delivered railway trucks, Paddington or South Lambeth	per foot cube	2/10½

Portland Stone

Whitbed, in random blocks of 20 feet cube average, delivered railway trucks Nine Elms, South Lambeth or Paddington	per foot cube	4/5
Basebed—add to the above	per foot cube	–/3
For every foot over 20 ft. cube average—add	per foot cube	–/1
For every foot over 30 ft. cube average—add	per foot cube	–/0½

½″ Thick Plain Marble Wall Linings

Roman Travertine	per foot super	5/–
Golden Travertine	per foot super	6/3
Roman stone	per foot super	4/6
Hopton-wood stone	per foot super	5/–
Second statuary	per foot super	4/6
Sicilian	per foot super	4/–

Artificial Stone

6″ × 3″	Copings and sills	per foot run	1/6
6″ × 6″	Copings and sills	per foot run	2/4
9″ × 3″	Copings and sills	per foot run	2/–
9″ × 6″	Copings and sills	per foot run	3/4
12″ × 3″	Copings and sills	per foot run	2/4
12″ × 6″	Copings and sills	per foot run	3/9
Cornices according to detail, per foot cube (from)			6/9

CURRENT PRICES

BY DAVIS AND BELFIELD

MASON, SLATER, TILER AND ROOFER, AND CARPENTER

MASON—(*continued*)

Reconstructed Stone to match Natural Stone

Sills, lintols, coping, cornices, ashlar, etc., average size	per foot cube	11/–
Window sills, 9″ × 3″ section	per foot run	2/1
„ „ 7″ × 3″ section	per foot run	2/–

Slate Slabs, cut to size and Planed

	1″	1½″	1¾″
Not exceeding 4′ 6″ long or 2′ 3″ wide	per foot super	3/1	3/4	3/11
„ „ 6′ 6″ long or 3′ 3″ wide	per foot super	3/9	4/1	4/10
Exceeding 6′ 6″ long or 3′ 3″ wide	per foot super	4/1	4/6	5/2
Rubbed faces	per foot super	–/5	–/5	–/6
„ edges	per foot run	–/4	–/4	–/5

Combined Slate Cills and Window Boards for Metal Windows

Window Width	Straight Cills, Wall thickness 9″	11″	13¼″	Circular Cills for C.O.P. Frames, Radius	External reveals 2″	4½″
1′ 8″	4/–	4/8	5/8	2′ 4½″	21/–	24/–
3′ 8½″	7/4	8/7	10/4	2′ 7½″	25/6	28/6
4′ 10½″	10/6	12/3	14/10	2′ 10½″	30/–	33/3

SLATER, TILER AND ROOFER

Best Bangor Slates

		£	s.	d.
24″ × 12″	per 1,000 actual	38	10	0
22″ × 12″	per 1,000 actual	27	19	0
22″ × 11″	per 1,000 actual	25	4	9
20″ × 12″	per 1,000 actual	24	14	6
20″ × 10″	per 1,000 actual	21	15	5
18″ × 12″	per 1,000 actual	20	19	3
18″ × 10″	per 1,000 actual	17	7	6
18″ × 9″	per 1,000 actual	15	11	9
16″ × 12″	per 1,000 actual	17	14	9
16″ × 10″	per 1,000 actual	15	11	9
16″ × 9″	per 1,000 actual	13	19	6
16″ × 8″	per 1,000 actual	12	1	11

Prices include for delivery to site in lots of 1,000 and upwards.

Old Delabole Slates (*f.o.r.*)

Standard sizes.

Prices and computed weights per 1,200.

		20″ × 10″	16″ × 10″
Grey medium gradings	per 1,200 cwts.	558/–	366/–
		38	30
Unselected greens (V.M.S.)	per 1,200 cwts.	628/–	413/–
		44	36

Random sizes.

Prices per ton and computed covering capacities in squares per ton.

		No. 1 Grading 24″/22″ to 12″/10″
Grey	per ton	128/–
Covering cap. :	per ton (3″ lap)	2·37 squares
	per ton (4″ lap)	2·19 squares
		No. 2 Grading 24″/22″ to 12″/10″
Weathering grey greens (V.M.S.)	per ton	139/–
Covering cap. :	per ton (3″ lap)	2·25 squares
	per ton (4″ lap)	2·08 squares
		No. 2 Grading 24″/22″ to 12″/10″
Weathering greens (V.M.S.)	per ton	149/–
Covering cap. :	per ton (3″ lap)	2·25 squares
	per ton (4″ lap)	2·08 squares
		No. 2 Grading 24″/22″ to 12″/10″
Rustic reds (25%) and weathering greens (V.M.S.)	per ton	174/–
Covering cap. :	per ton (3″ lap)	2·25 squares
	per ton (4″ lap)	2·08 squares

Railway rate to Nine Elms, London, minimum 4 tons, 21/9, minimum 6 tons per truck, 18/1 per ton.

Tiles

		£	s.	d.
Hand-made sandfaced 10½″ × 6½″ red roofing tiles	per 1,000	4	15	0
Machine-made sandfaced 10½″ × 6½″ red roofing tiles	per 1,000	4	0	0
Berkshire rustic pantiles	per 1,000	18	10	0

SLATER, TILER AND ROOFER—(*continued*)

Westmorland Green Slates

	Price per ton	Bests, 24″ to 12″ long. Proportionate widths. Computed cover in sq. yds. per ton
Random sizes.		
No. 1 Buttermere fine light green	240/–	30
No. 2 „ light green (coarse grained)	215/–	27–28
No. 5 „ olive green (coarse grained)	197/–	25–27
No. 5 Medium green	197/–	25–26
No. 7 Elterwater fine light green	216/–	27–28
No. 15 Tilberthwaite fine light green	214/–	26–28
No. 16 „ light green (coarse grained)	202/–	25–27
Broughton Moor, light sea green, olive green, silver grey green, and mixed shades	237/–	27

Prices include for delivery to any station, minimum 6-ton truck loads.

Asbestos-cement

6″ corrugated sheets, grey	per yard super	3/0¾
Standard 3″ corrugated sheets, grey	per yard super	2/9½
Slates :—		
15¾″ × 7⅞″ grey	per 1,000	£6 3 9
15¾″ × 15¾″ diagonal, grey	per 1,000	£11 15 0
15¾″ × 15¾″ diagonal, russet or brindled	per 1,000	£14 16 9
Pantiles.		
Large russet brown	per 1,000	£19 8 6

Prices are for minimum two-ton loads, and are subject to 5% trade discount.

Cedar Wood Tiles

Canadian cedar wood shingles .. per square 32/– (normal quantity).

Prices include for delivery to nearest railway station in England but vary with quantity.

CARPENTER

Carcassing Timber

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

		Per standard £ s. d.	Per foot cube
4″ × 11″ Scantling		25 5 0	3/0¾
4″ × 9″	„	24 15 0	3/–
3″ × 11″	„	28 10 0	2/10½
2″ × 11″	„	24 0 0	2/11
3″ × 9″	„	23 0 0	2/9½
2″ × 9″	„	23 10 0	2/10½
3″ × 8″	„	22 0 0	2/8
2″ × 8″	„	22 0 0	2/8
3″ × 7″	„	21 0 0	2/6½
2″ × 7″	„	21 0 0	2/6½
4″ × 6″	„	25 0 0	3/0½
3″ × 6″	„	22 0 0	2/8
2″ × 6″	„	21 0 0	2/6½
3″ × 5″	„	22 10 0	2/8¾
3″ × 4″	„	22 0 0	2/8
2″ × 5″	„	20 0 0	2/5½
2″ × 4″	„	20 10 0	2/6
1½″ × 11″	„ (20 ft. lengths and over)	per ft. run	–/4½
1½″ × 9″	„ (20 ft. lengths and over)	per ft. run	–/3½
1½″ × 7″	„ (20 ft. lengths and over)	per ft. run	–/2½

Yellow Deal Battens

½″ × 1″	per 100 feet run 1/5
½″ × 1½″	per 100 feet run 2/6
¾″ × 2″	per 100 feet run 3/–
1″ × 2″	per 100 feet run 4/9
1½″ × 2″	per 100 feet run 6/–

Weather Boarding

Deal :—

¾″ × ¼″ × 6″ Feather edge	per square 12/–
¾″ × ¼″ × 4″ Feather edge	per square 9/6
Western red cedar :—	
1″ × 6″ Drop sidings	per square 38/–
11/16″ × 3/16″ × 6″ Feather edge	per square 13/–
¾″ × ¼″ × 4″ Feather edge	per square 13/6

Roof Boarding

Deal :—

¾″ × 6″	per square 16/6
1″ × 6″	per square 21/–

TO BE CONTINUED IN NEXT ISSUE