

THE ARCHITECTS' JOURNAL



standard contents

every issue does not necessarily contain
all these contents but they are
the regular features which
continually recur

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Wanted and Vacant

No. 3109]

[Vol. 120

THE ARCHITECTURAL PRESS

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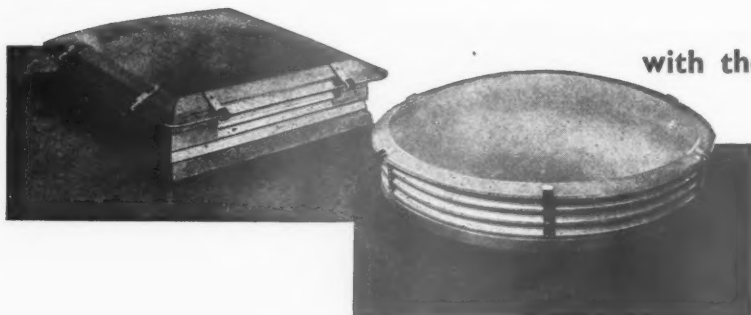
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★ A glossary of abbreviations of Government Departments and Societies and Committees of all kinds, together with their full address and telephone numbers. The glossary is published in two parts—A to I one week, I to Z the next. In all cases where the town is not mentioned the word LONDON is implicit in the address.

AA	Architectural Association, 34/6, Bedford Square, W.C.1.	Museum 0974
AAI	Association of Art Institutions. Secy.: W. Marlborough Whitehead, "Dyneley," Castle Hill Avenue, Berkhamstead, Herts.	
ABS	Architects' Benevolent Society. 66, Portland Place, W.1	Langham 5721
ABT	Association of Building Technicians. 5, Ashley Place, S.W.1.	Victoria 0447-8
ACGB	Arts Council of Great Britain. 4, St. James' Square, S.W.1.	Whitehall 9737
ADA	Aluminium Development Association. 33, Grosvenor Street, W.1.	Mayfair 7501/8
ArchSA	Architectural Students' Association. 34/36, Bedford Square, W.C.1.	
ARCUK	Architects' Registration Council. 68, Portland Place, W.1	Langham 8738
BAE	Board of Architectural Education. 66, Portland Place, W.1.	Langham 5721
BATC	Building Apprenticeship and Training Council. Lambeth Bridge House, S.E.1.	
BC	Building Centre. 26, Store Street, Tottenham Court Road, W.C.1.	Reliance 7611, Ext. 1706
BCC	British Colour Council. 13, Portman Square, W.1.	Museum 5400
BCCF	British Cast Concrete Federation. 105, Uxbridge Road, Ealing, W.5.	Ealing 9621
BCIRA	British Cast Iron Research Association. Alvechurch, Birmingham.	Redditch 716
BDA	British Door Association. 10, The Boltons, S.W.10.	Fremantle 8494
BEDA	British Electrical Development Association. 2, Savoy Hill, W.C.2.	Temple Bar 9434
BIA	British Ironfounders' Association. 145, Vincent Street, Glasgow, C.2.	Glasgow Central 2891
BIAE	British Institute of Adult Education. 29, Tavistock Square, W.C.1.	Euston 5385
BID	Building Industries Distributors. 52, High Holborn, W.C.1.	Chancery 7772
BINC	Building Industries National Council. 11, Weymouth Street, W.1.	Langham 2785
BOT	Board of Trade. Whitehall Gardens, Horseguards Avenue, Whitehall, S.W.1.	Trafalgar 8855
BRDB	British Rubber Development Board. Market Buildings, Mark Lane, E.C.3.	Mansion House 9383
BRS	Building Research Station. Bucknalls Lane, Watford.	Garston 2246
BSA	Building Societies Association. 14, Park Street, W.1.	Mayfair 0515
BSI	British Standards Institution. British Standards House, 2, Park St., W.1.	Mayfair 9000
BTE	Building Trades Exhibition. 4, Vernon Place, W.C.1.	Holborn 8146/7
CABAS	City and Borough Architects Society. C/o Johnson Blackett, F.R.I.B.A., Civic Centre, Newport, Mon.	Newport 5491
CAS	County Architects' Society. C/o F. R. Steele, F.R.I.B.A., County Hall, Chichester.	Chichester 3001
CCA	Cement and Concrete Association. 52, Grosvenor Gardens, S.W.1.	Sloane 5255
CCP	Council for Codes of Practice. Lambeth Bridge House, S.E.1.	Reliance 7611
CDA	Copper Development Association. Kendals Hall, Radlett, Herts.	Radlett 5616
CIAM	Congrès Internationaux d'Architecture Moderne. Dolderal, 7, Zurich, Switzerland.	
COID	Council of Industrial Design. Tilbury House, Petty France, S.W.1.	Abbey 7080
CPRE	Council for the Preservation of Rural England. 4, Hobart Place, S.W.	Sloane 4280
CUC	Coal Utilization Council. 3, Upper Belgrave Street, S.W.1.	Sloane 9116
CVE	Council for Visual Education. 13, Suffolk Street, Haymarket, S.W.1.	Reading 72255
DGW	Directorate General of Works, Ministry of Works, Lambeth Bridge House, S.E.1.	Reliance 7611
DIA	Design and Industries Association. 13, Suffolk Street, S.W.1.	Whitehall 0540
DPT	Department of Overseas Trade. Horseguards Avenue, Whitehall, S.W.1.	Trafalgar 8855
EJMA	English Joinery Manufacturers' Association (Incorporated), Sackville House, 40, Piccadilly, W.1.	Regent 4448
EPNS	English Place-Name Society. 7, Selwyn Gardens, Cambridge.	
FAS	Faculty of Architects and Surveyors. 67, Oxford Street, W.1.	Gerrard 0021
FASS	Federation of Association of Specialists and Sub-Contractors, Artillery House, Artillery Row, S.W.1.	Abbey 7232
FBBDO	Fibre Building Board Development Organisation, Ltd., Melbourne House, Aldwych, W.C.2.	Temple Bar 4561
FBI	Federation of British Industries. 21, Tothill Street, S.W.1.	Whitehall 6711
FC	Forestry Commission. 25, Savile Row, W.1.	
FCMI	Federation of Coated Macadam Industries. 37, Chester Square, S.W.1.	Sloane 1002
FDMA	The Flush Door Manufacturers Association Ltd. Trowell, Nottingham.	Ilkeston 623
FLD	Friends of the Lake District. Pennington House, nr. Ulverston, Lancs.	Ulverston 201
FMB	Federation of Master Builders. 26, Great Ormond Street, Holborn, W.C.	Chancery 7583
FPC	The Federation of Painting Contractors, St. Stephen's House, S.W.1.	Whitehall 3902
FRHB	Federation of Registered House Builders. 82, New Cavendish Street, W.1.	Langham 4041
FS (Eng.)	Faculty of Surveyors of England. 67, Oxford Street, W.1.	Gerrard 0021
GC	Gas Council. 1, Grosvenor Place, S.W.1.	Sloane 4554
GG	Georgian Group. 27, Grosvenor Place, S.W.1.	Sloane 2844
HC	Housing Centre. 13, Suffolk Street, Pall Mall, S.W.1.	Whitehall 2881
IAAS	Incorporated Association of Architects and Surveyors. 75, Eaton Place, S.W.1.	Sloane 5615
ICA	Institute of Contemporary Arts. 17-18, Dover Street, Piccadilly, W.1.	Grosvenor 6186
ICE	Institution of Civil Engineers. Great George Street, S.W.1.	Whitehall 4577
IEE	Institution of Electrical Engineers. Savoy Place, W.C.2.	Temple Bar 7676
IES	Illuminating Engineering Society. 32, Victoria Street, S.W.1.	Abbey 5215

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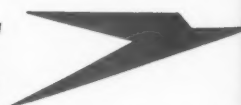
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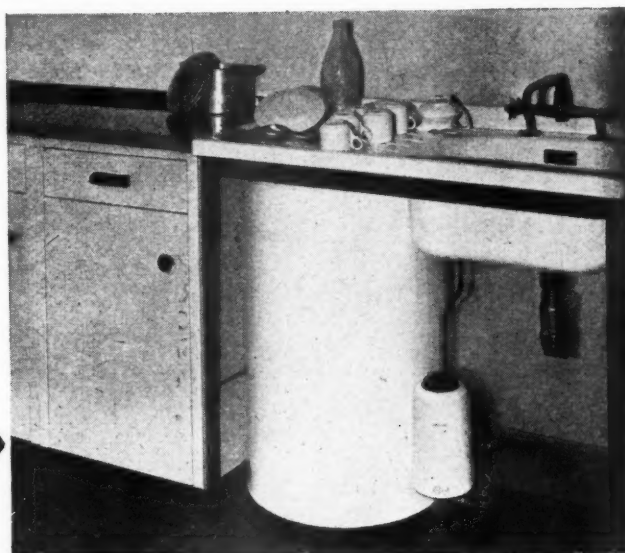
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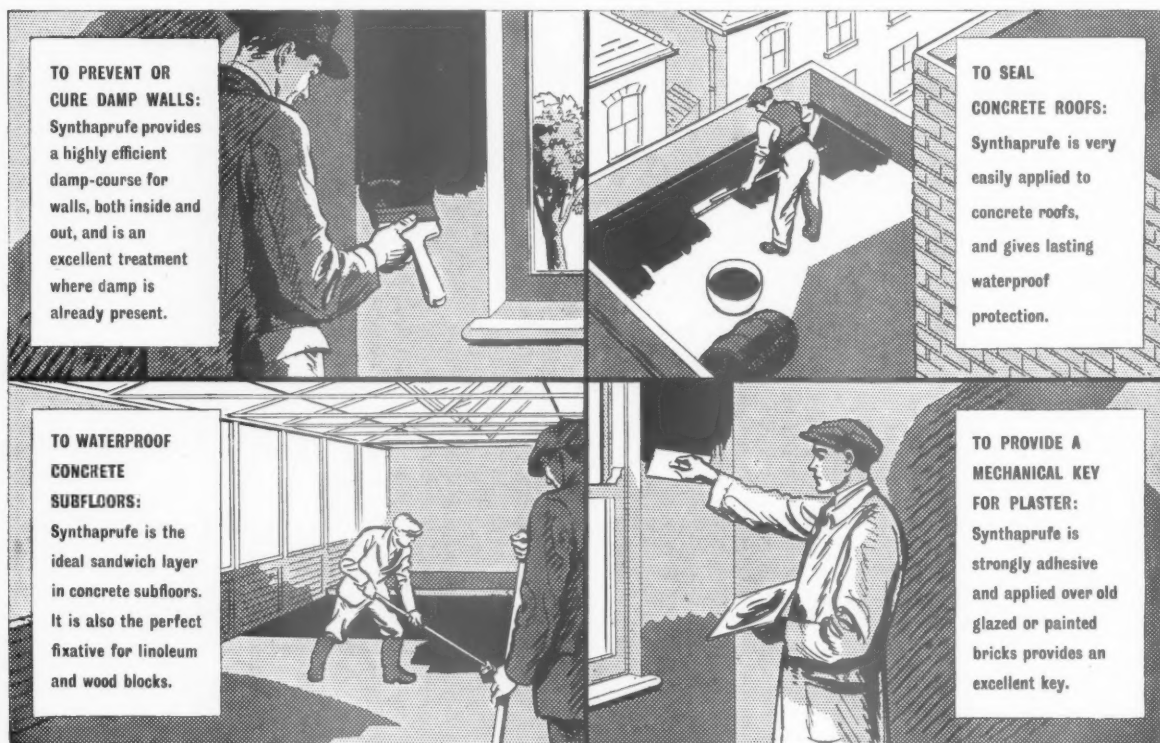


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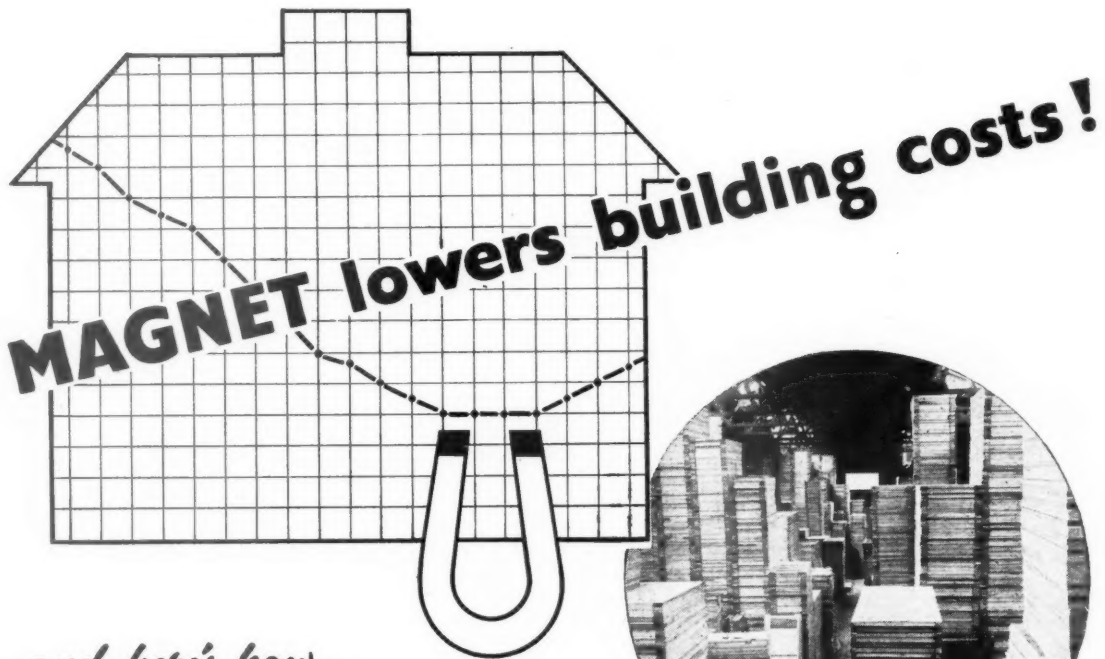
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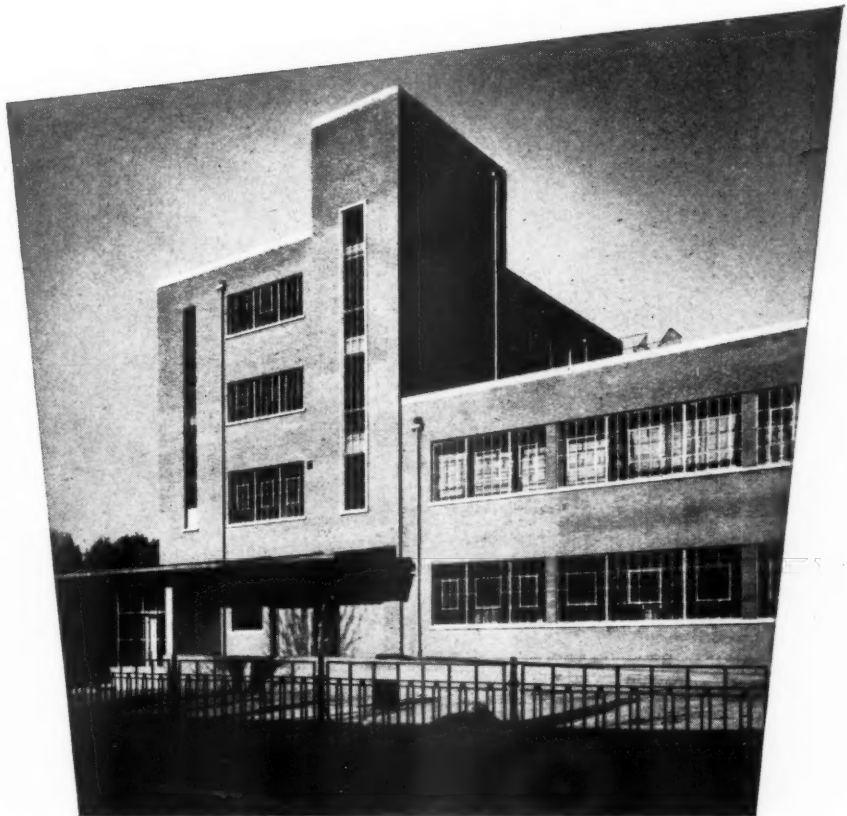
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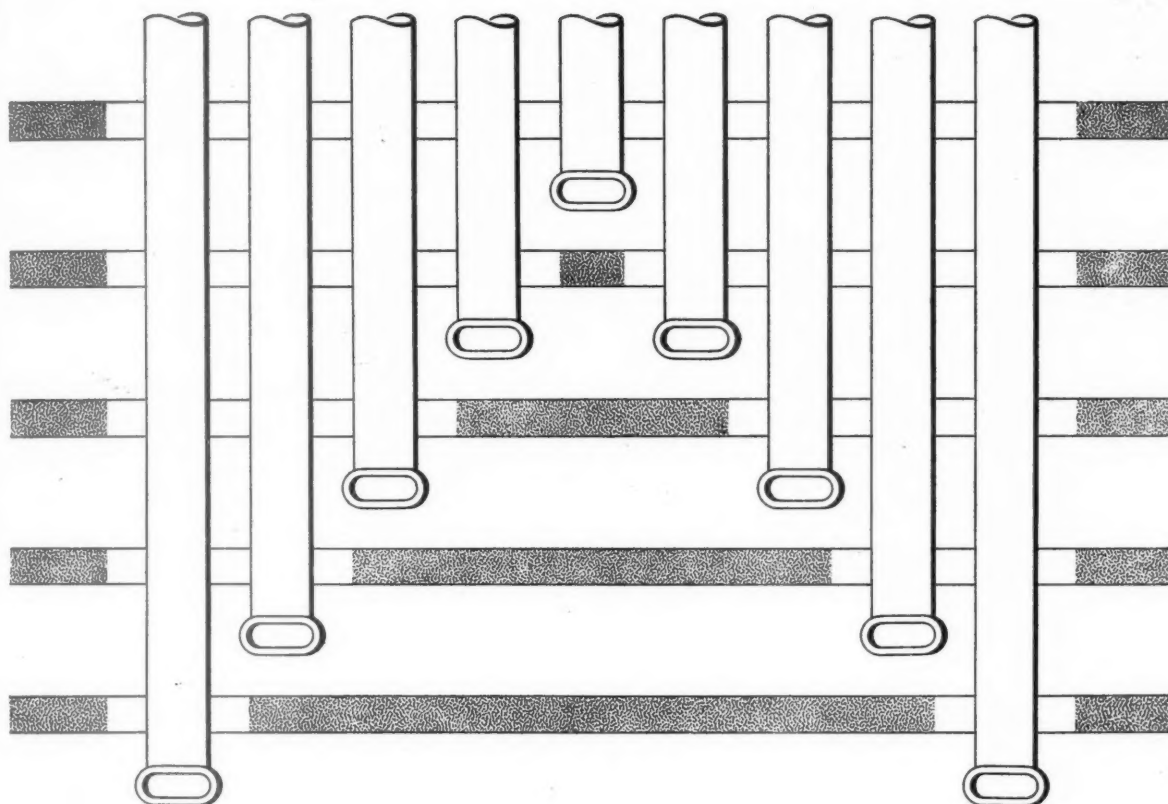
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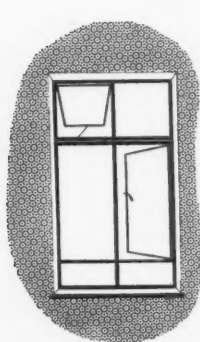
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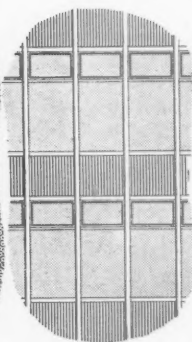
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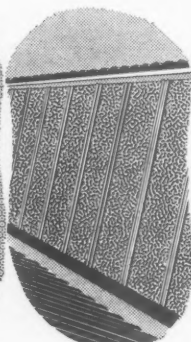
Metal Windows



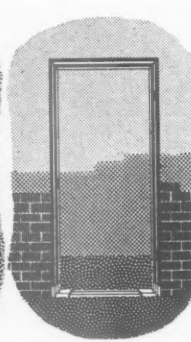
Wallspan Curtain Walling



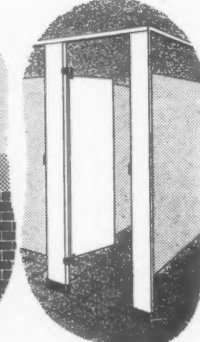
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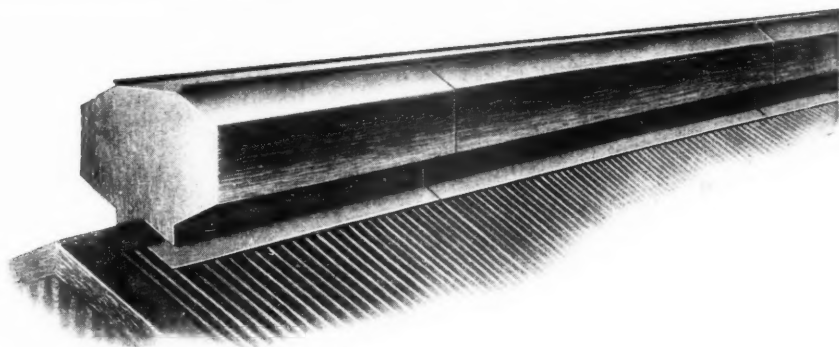
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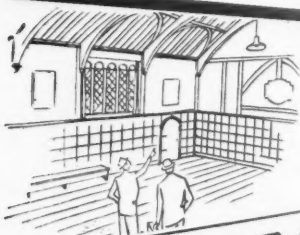
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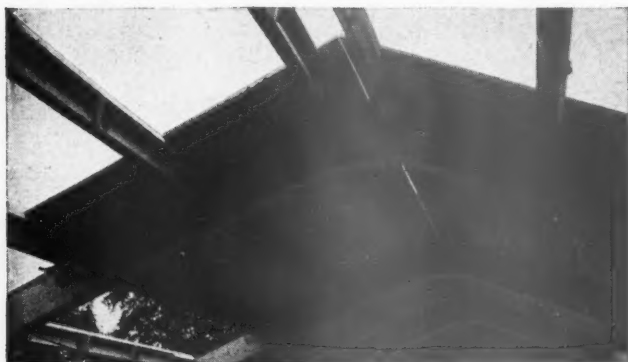


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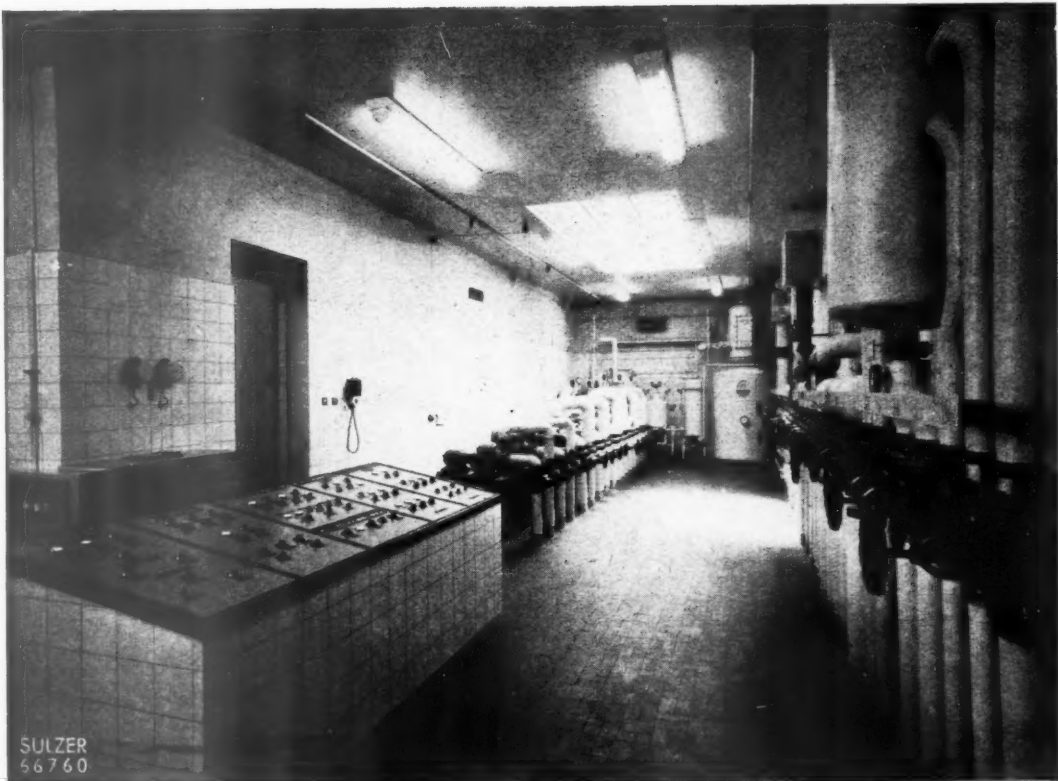


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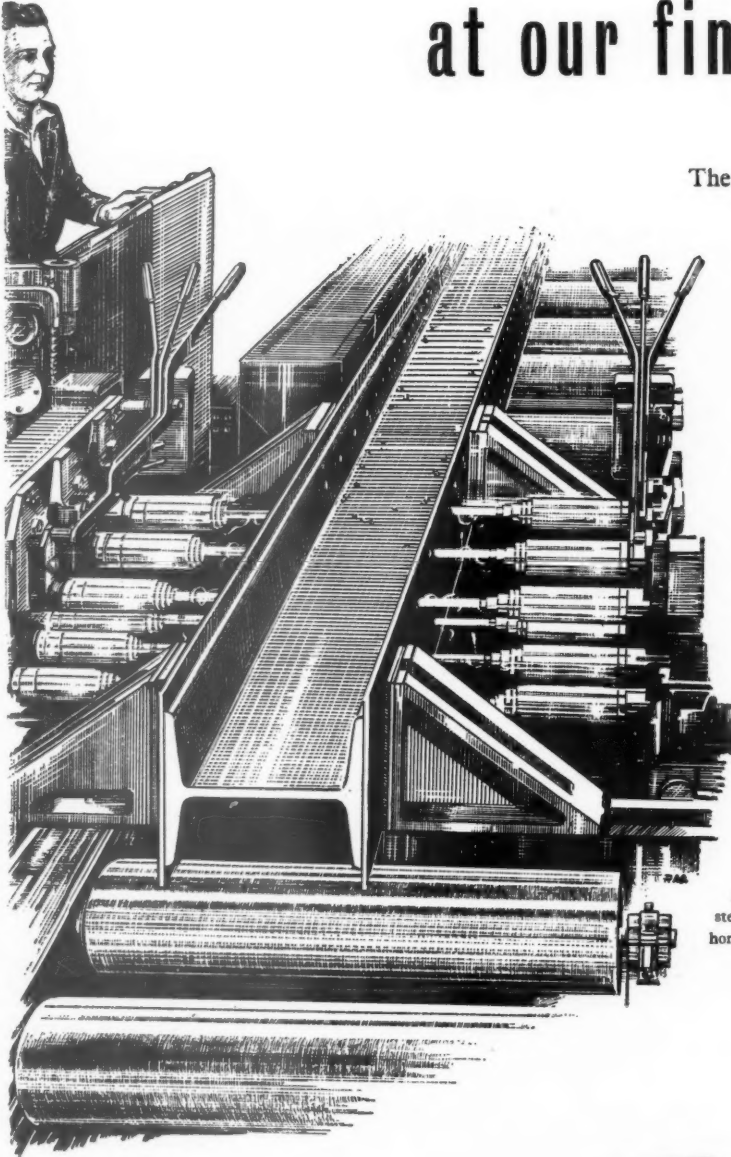
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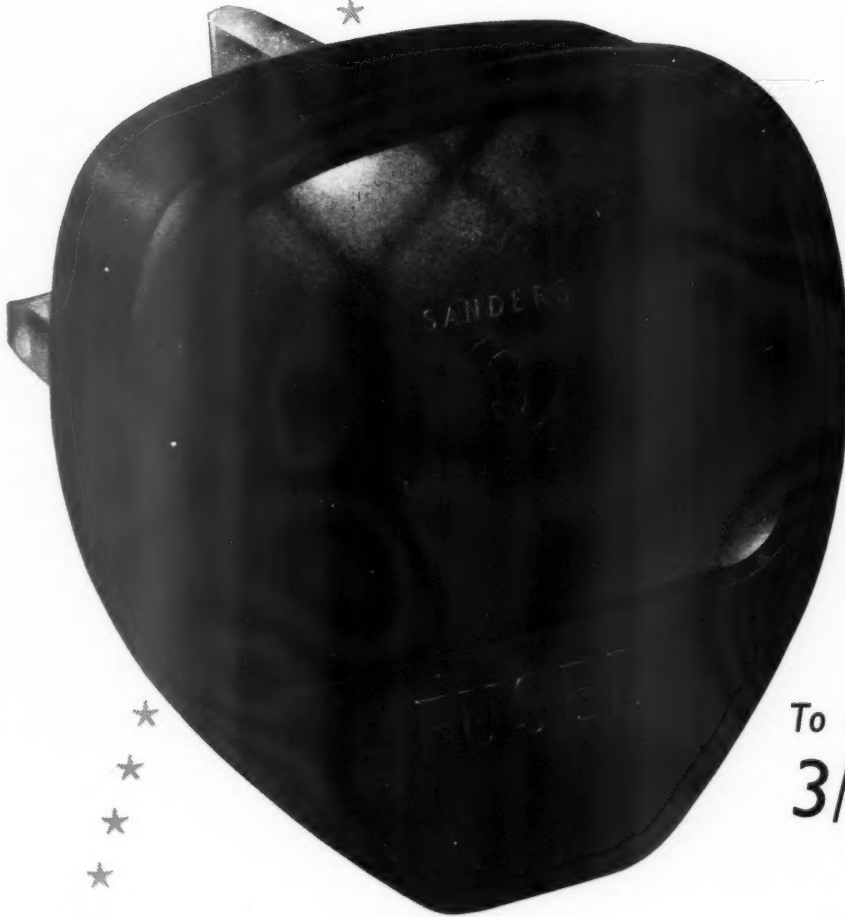
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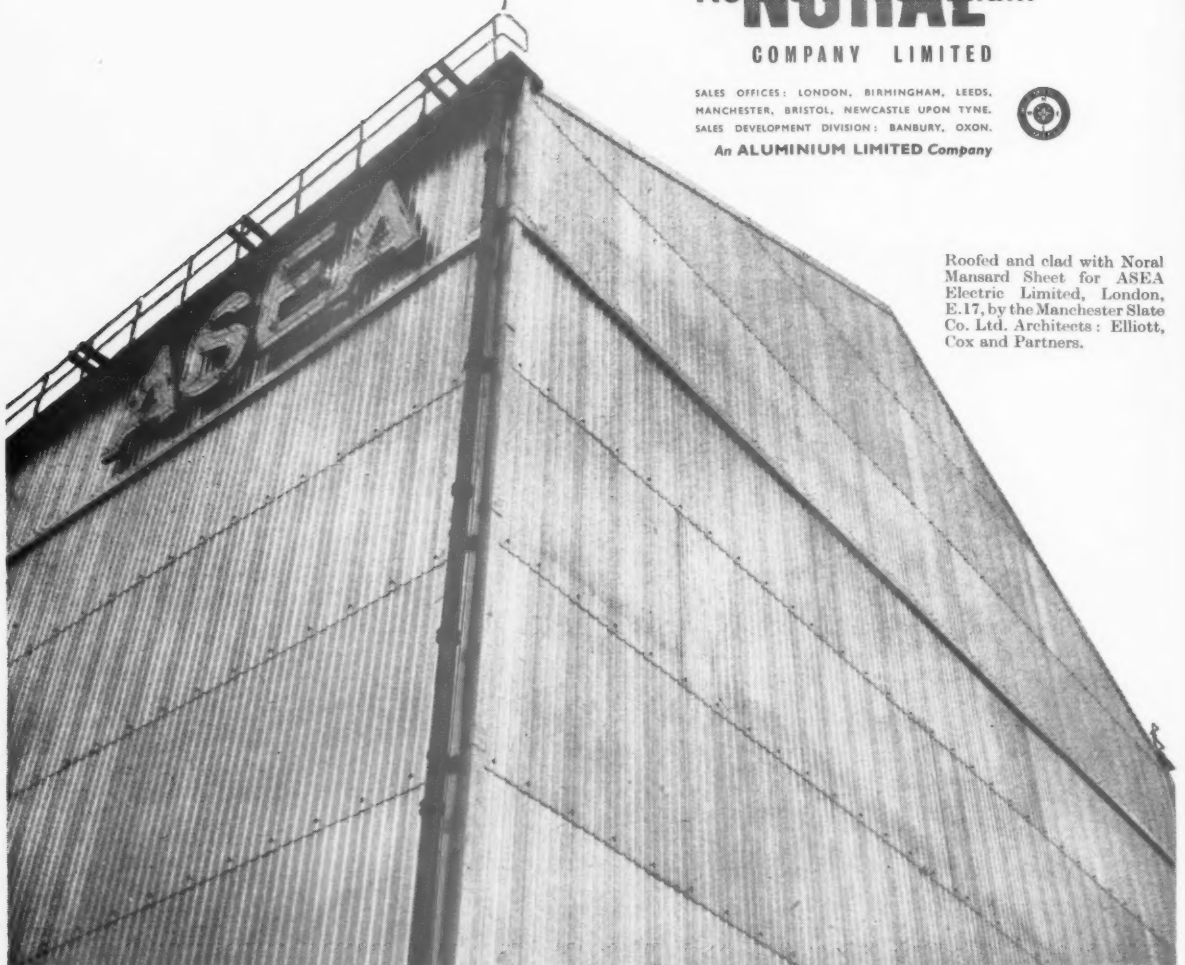
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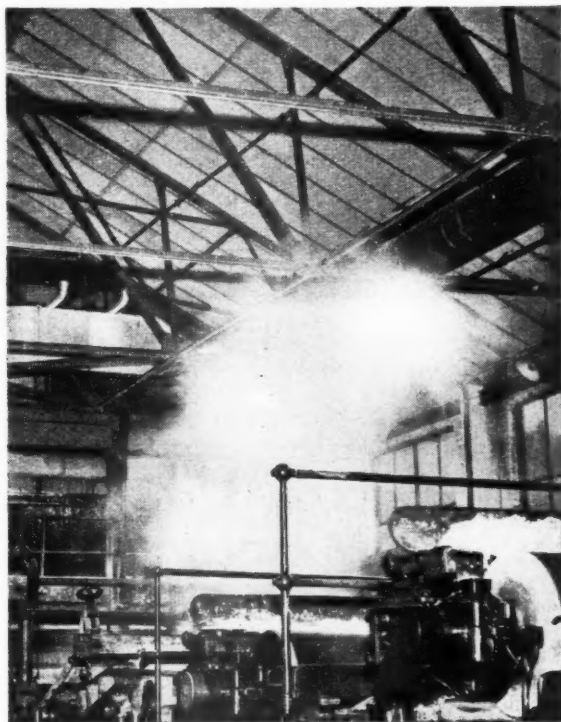
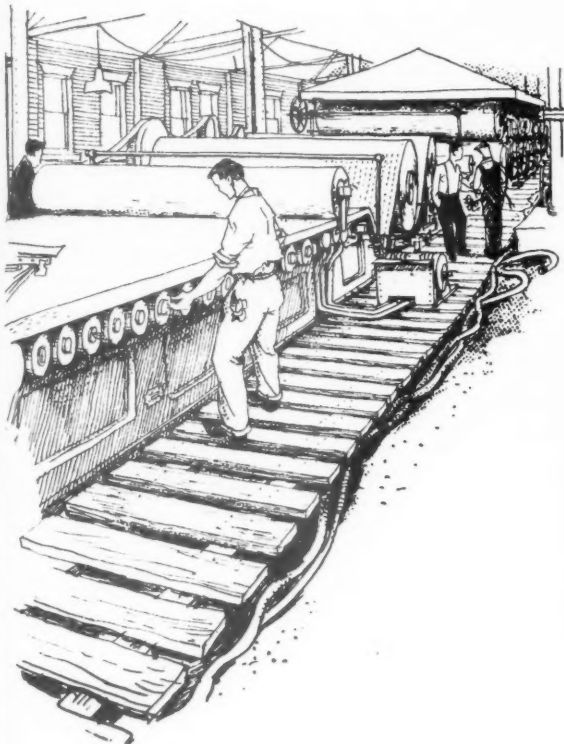
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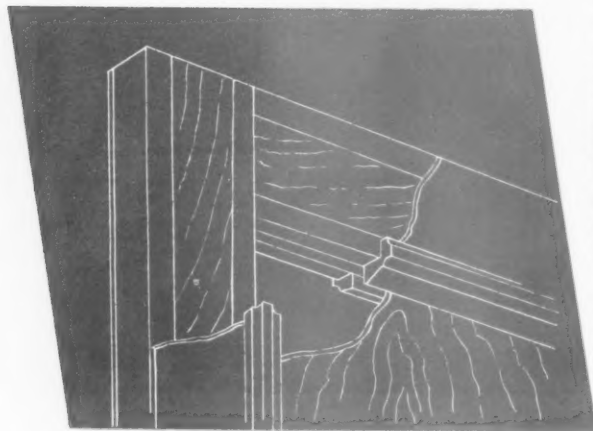
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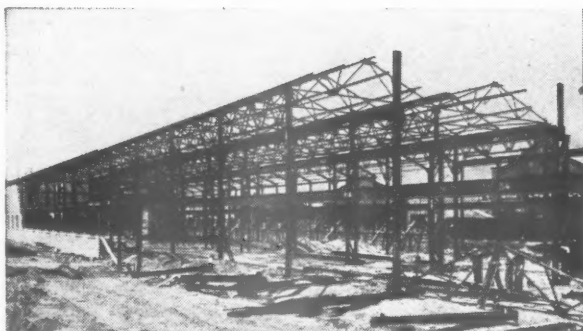
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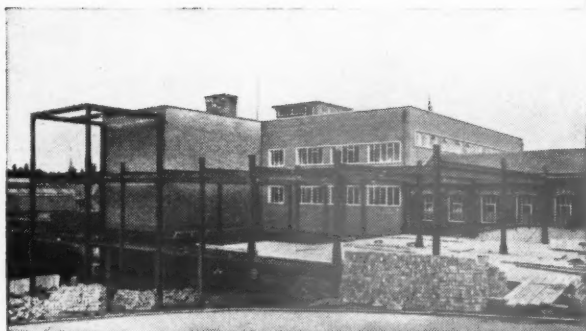
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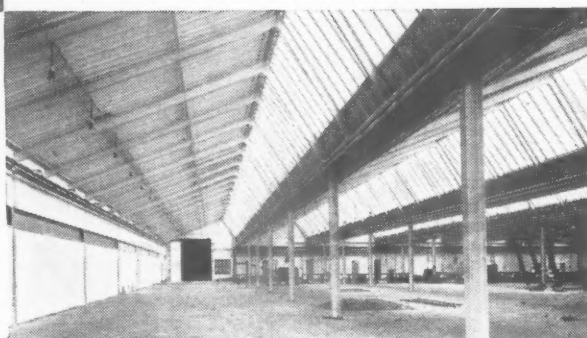
Stores building in course of erection for National Gas & Oil Engines Limited.



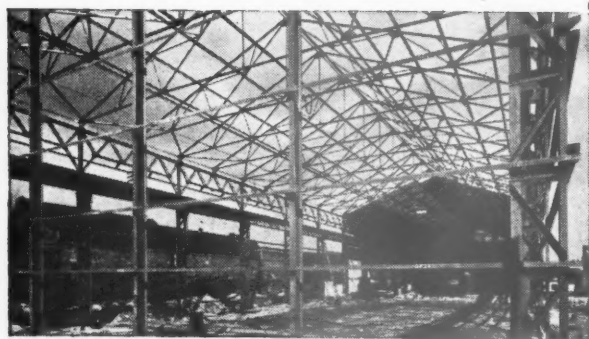
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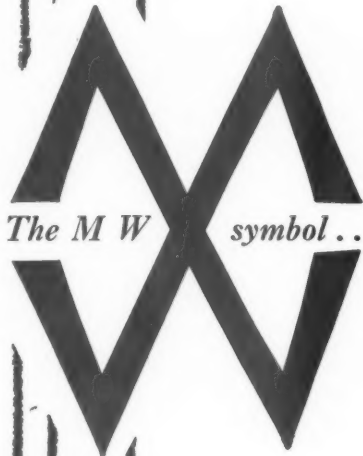
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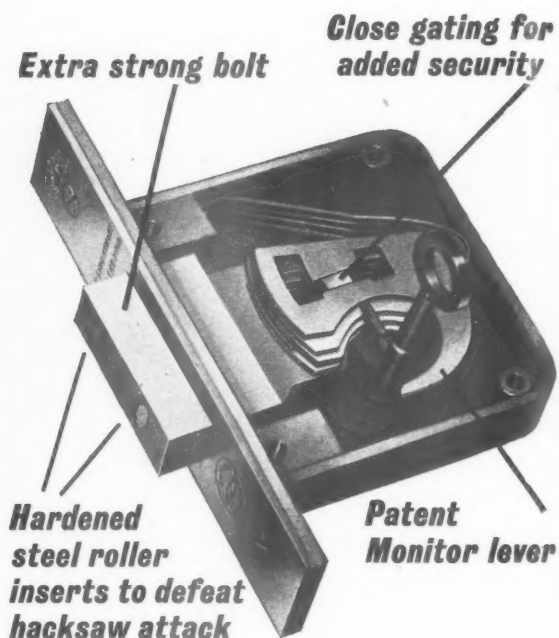
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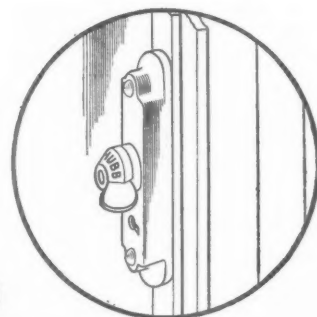
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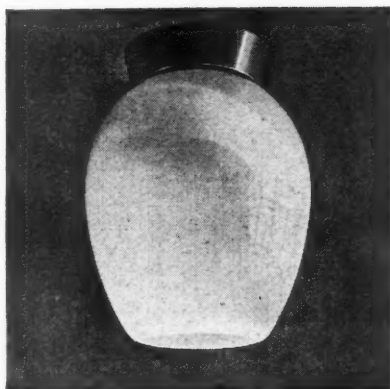
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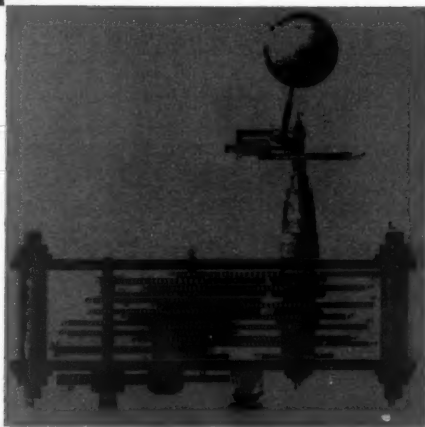
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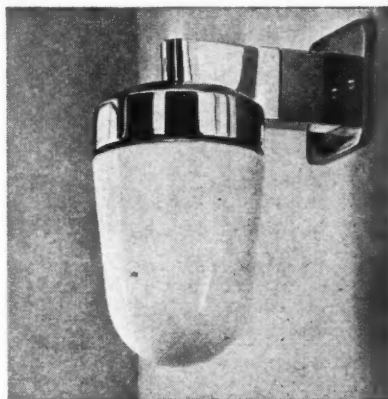


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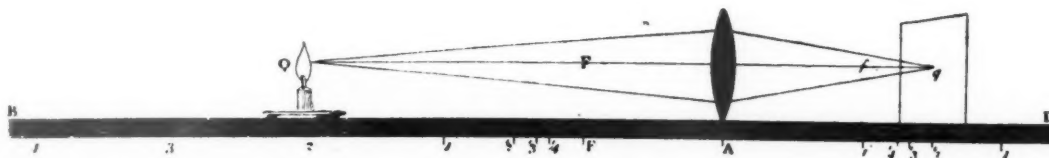


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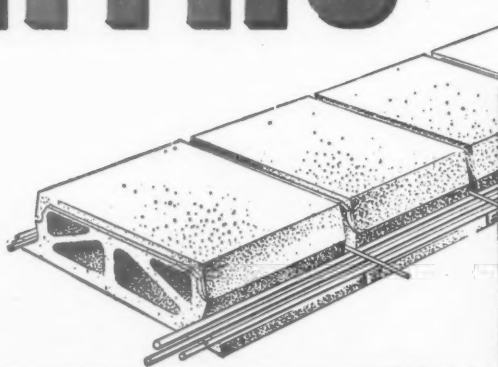
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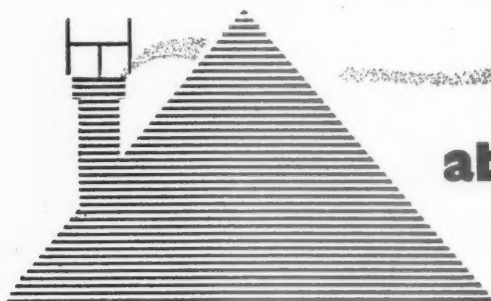


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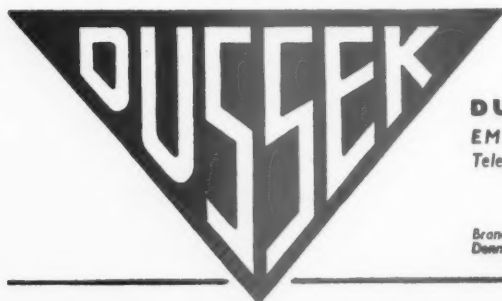
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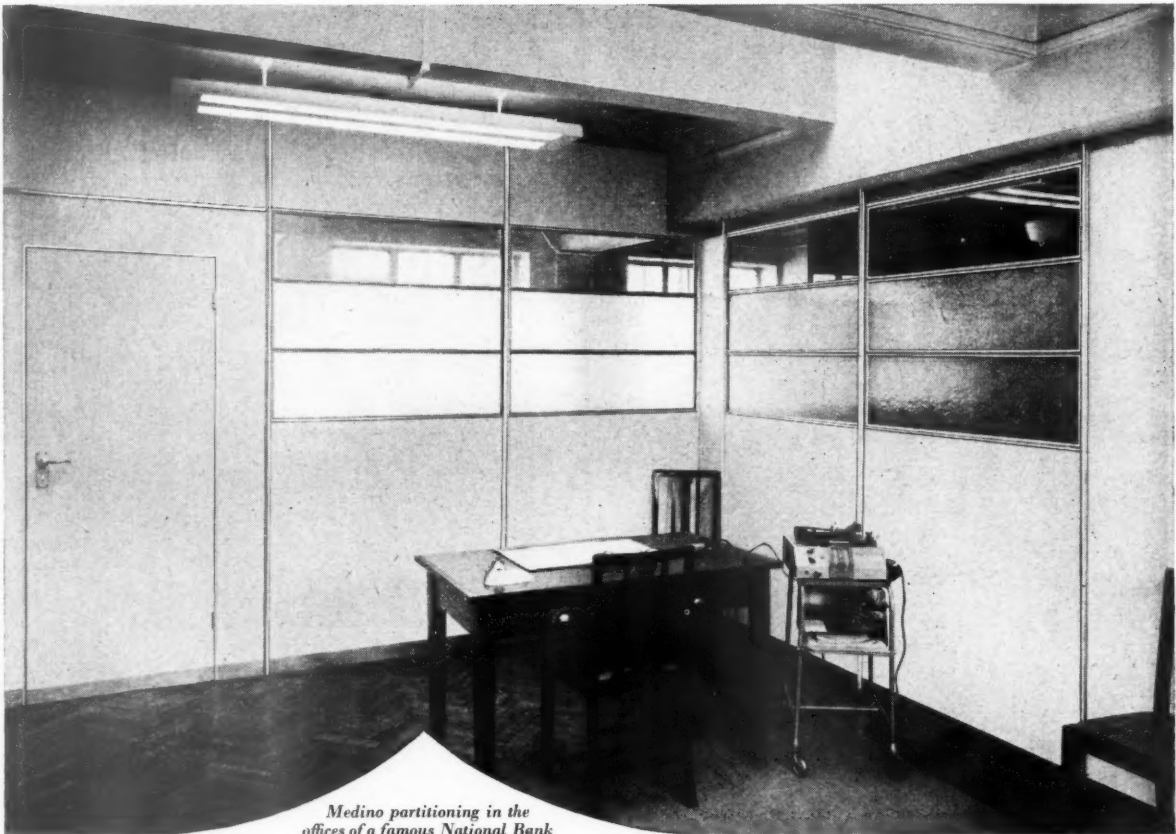


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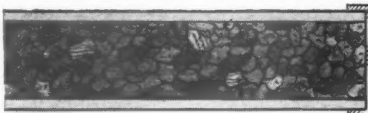
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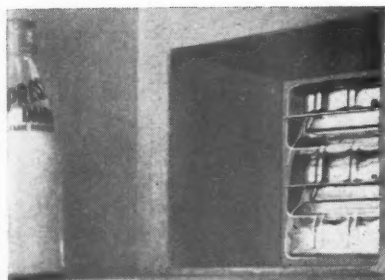
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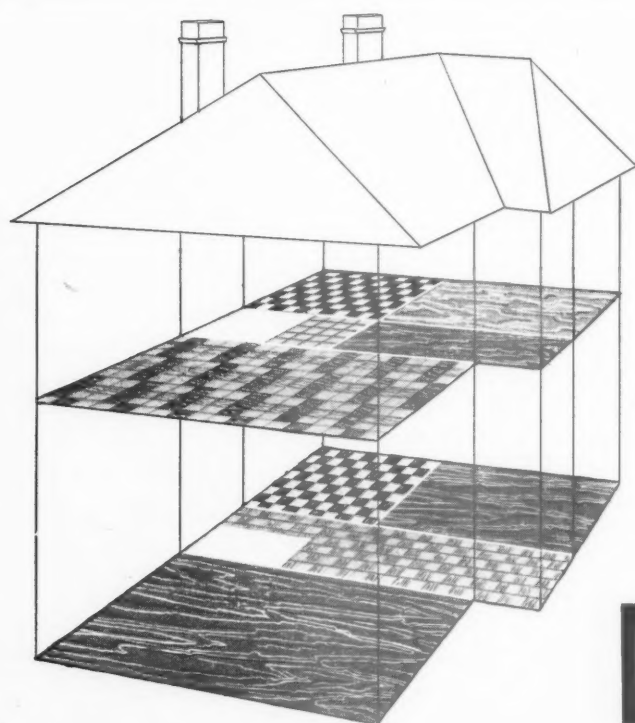
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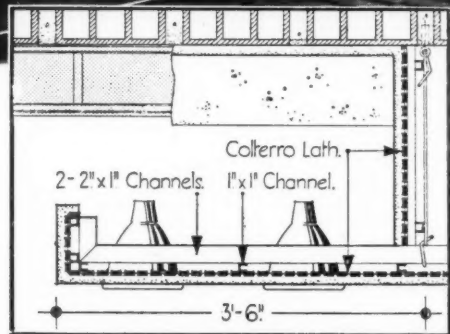
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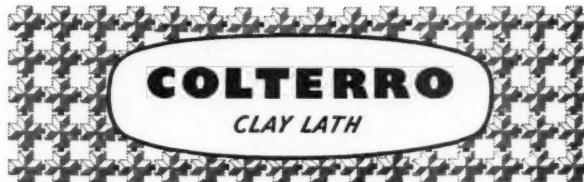


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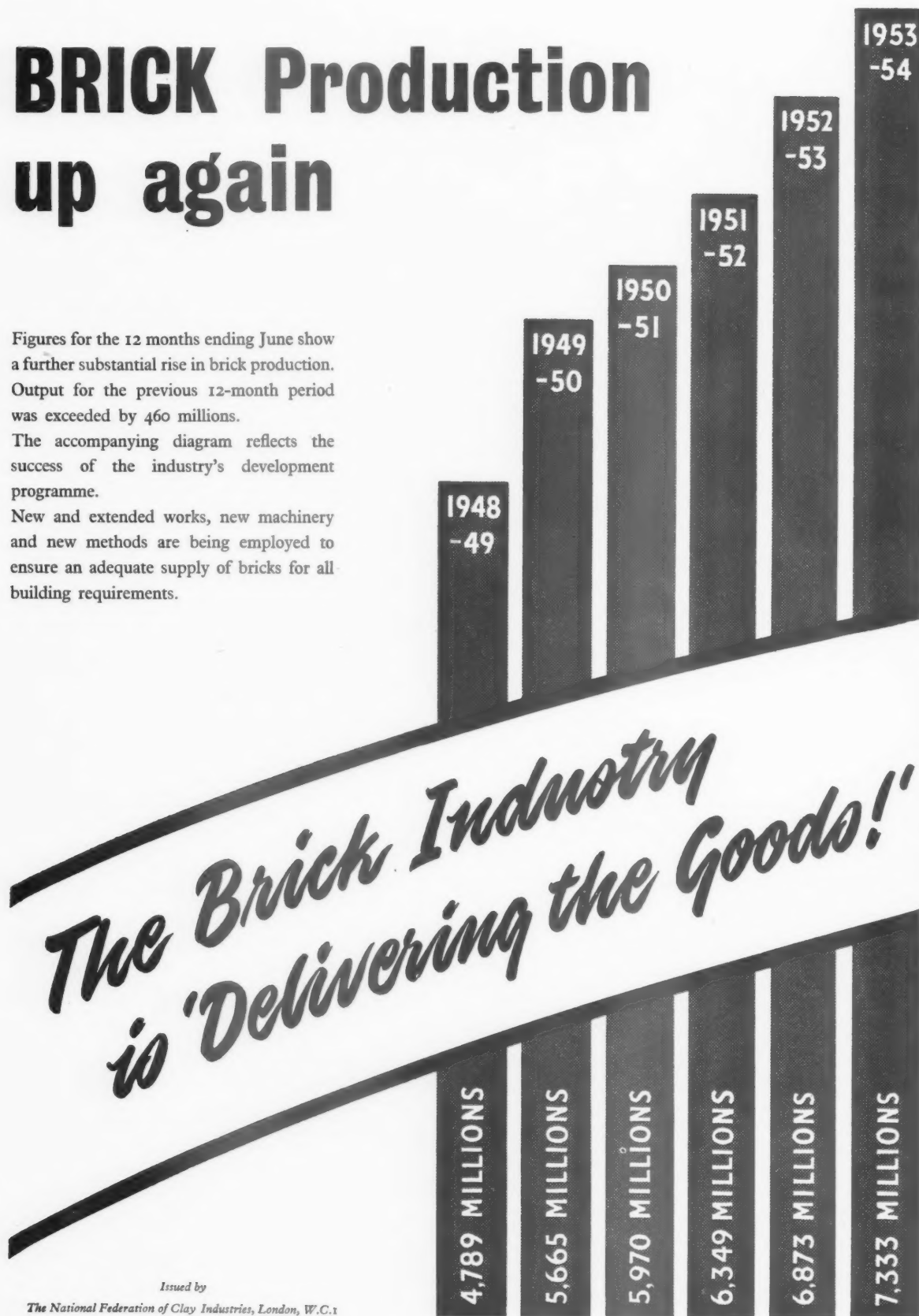
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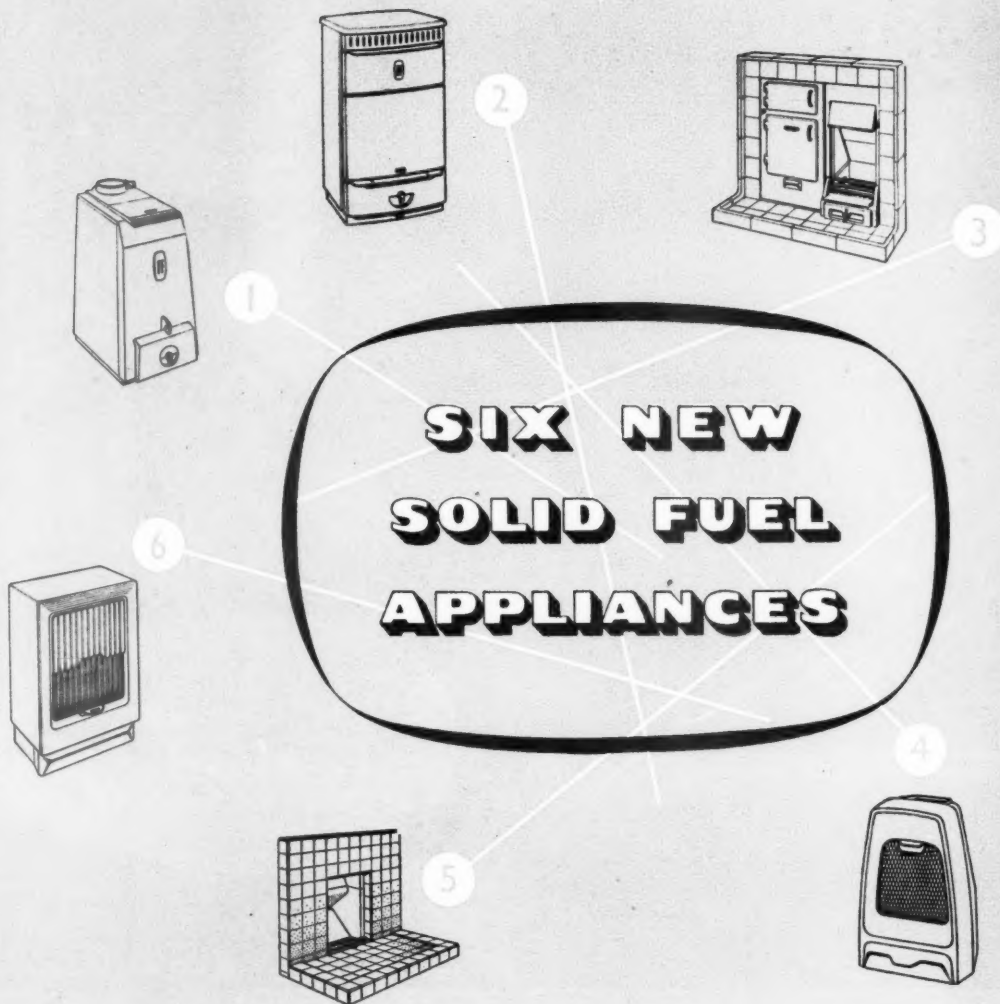
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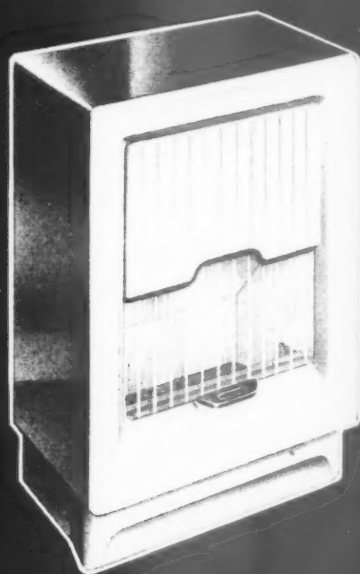
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- ③ ENSIGN COMBINATION GRATE
- ④ SWIFT STAND-IN FIRE
- ⑤ SUMMIT UNDER-FLOOR FIRE
- ⑥ SOFONO SUNRAY STOVE

GRANGE-CAMELON IRON COMPANY LIMITED FALKIRK

SOFONO-SUNRAY STOVE



The Sofono-Sunray Stove is a new, contemporary styled, slow combustion stove. It combines the clear view of an open fire with the efficiency of an all night burning closed stove.

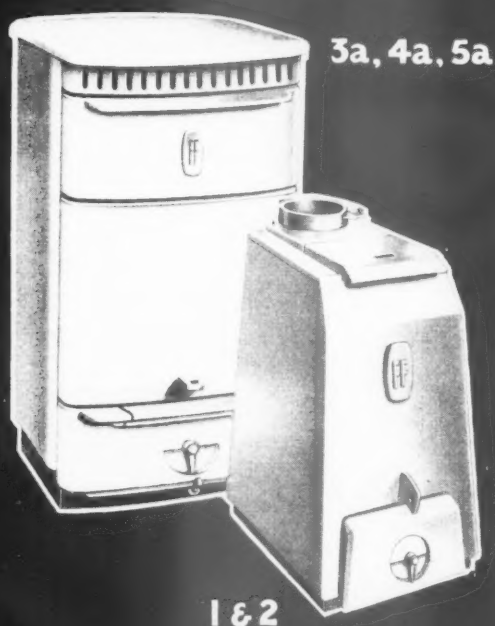
A special feature is the new type of transparent fire door screen which does not smoke up, and can slide up out of sight when not required. It is available free standing or inset, and in two contrasting or matching colours in bright lustrous or vitreous enamel.

The unit can be supplied with or without a boiler and may be fitted into any type of fire surround with the minimum of structural alterations.

DIMENSIONS

Free Standing		Inset	
Height	29½"	Height	29½"
Width	18½"	Width	19"
Depth	11"	Depth	11"
		(with 1½" projection beyond tile surround)	

SOFONO SLOW-COMBUSTION STOVES



Nos. 1 and 2

This all-purpose stove is designed to provide trouble-free and economical heating to garden huts, small halls, waiting rooms, workshops, etc. It burns all types of fuel and is overnight burning. A shaker grate has been designed for easy riddling and the rotating sector air control is simple and accurate. The unit is constructed of durable cast iron and is finished in "fine cast" or may be supplied in Black Vitreous Enamel.

Nos. 3a, 4a and 5a

With its large heating surface, the stove is most suitable for small halls, club changing rooms, community centres, schools, nurseries, waiting rooms, welfare centres, cafes, restaurants, shops, public houses, municipal offices and works, etc. The unit is completely enclosed and may be fitted with convection side panels. Available in lustrous or vitreous enamels in many colours.



The Ensign Combination Grate has been re-designed to meet current demands. The 14" all night burning fire is fitted with a patent drop-down front which enables the whole of the fire to be seen and, therefore, a greater room radiation is obtained.

The main oven gives an even temperature for all cooking and baking, and the top oven acts as a hot cupboard or slow cooking oven. A triple-purpose trivet, which acts as a normal trivet, an extra hot-plate and a safety closure cover is also incorporated. The Mantel and Raised Kerb as illustrated are extra to the basic specification.

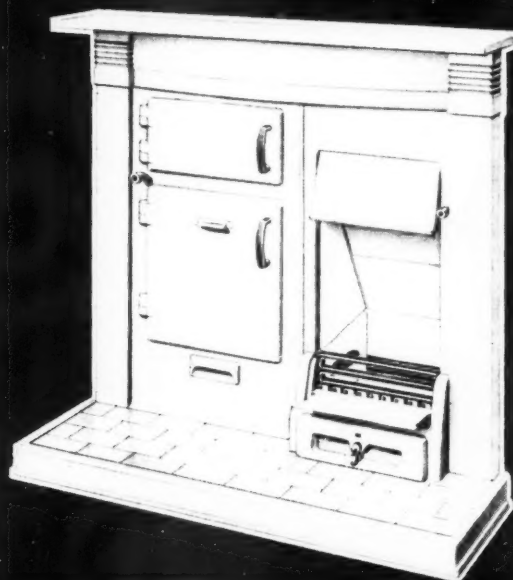
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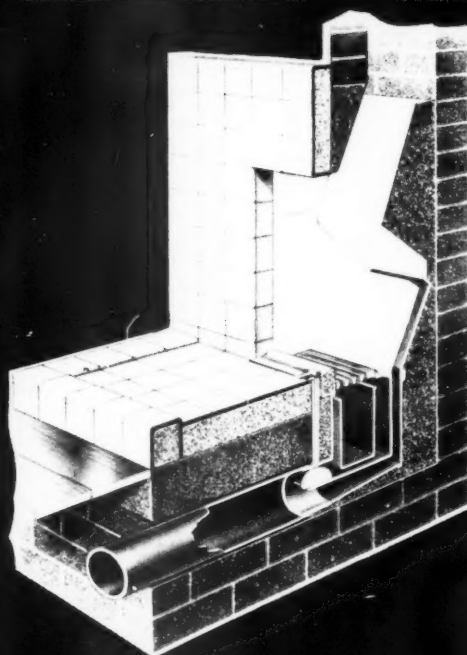
The Summit Fire incorporates a completely new idea which is designed to minimise room air changes and convert smoke into flame thus giving greater radiation.

Air is drawn through the pipe under the floor, brought up behind the fire where it is heated and is finally emitted through the slot at the back of the fire. This heated air ignites the fuel gases, which would otherwise go up the chimney in smoke, and provides a secondary source of heat. It is comparatively simple to install, and all the necessary fittings are supplied. The unit is overnight burning and will burn for 3/7 days without ash removal.

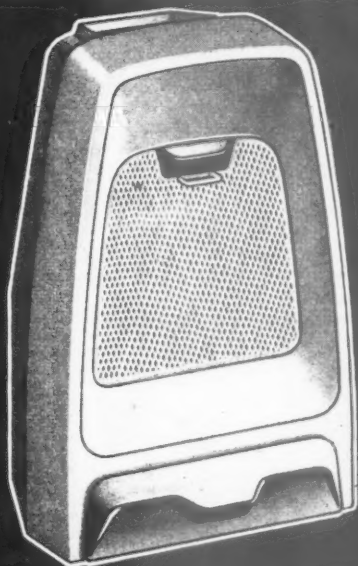
THE "ENSIGN" COMBINATION GRATE



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One of the advantages of this appliance is the restricted throat, controlled by a damper, which prevents too much ventilation and heat losses up the chimney.

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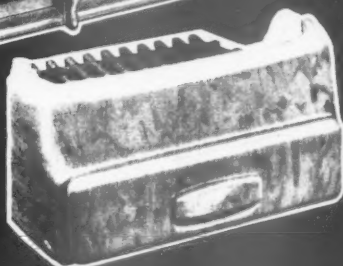
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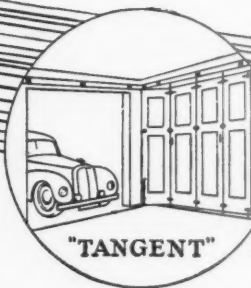
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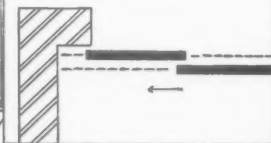
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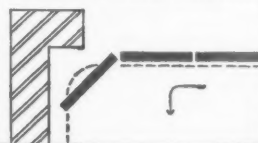
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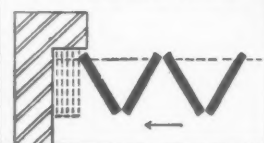
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No. 3109 September 30, 1954 VOL. 120



TRIENNALE

Bronzed by a southern sun, and with fragments of *taglierini* still adhering to their chins, the first reporters and casual visitors are back from the tenth *Triennale di Milano*. The bronzing was acquired on the Sunday on which Milan had its summer, for the rest of the time it appears to have been dull with enough rain to hold up outside work effectively—so that the Triennale was true to its best traditions and was nothing-like-finished on opening day. Making a careful survey of reports and rumours, and dividing eye-witness accounts by a factor of two, ASTRAGAL observes that breath tends to be most effectively bated about the following items:

One: a labyrinth in the outdoor section, designed by BBPR (see pages 394 and 397)—a sequence of curving brick walls, adorned on their inner side with *sgraffiti* by Saul Steinberg, scratched directly on the wet plaster. A squad of men goes round every night removing amateur additions. At the centre of the labyrinth, a Calder mobile turning slowly over a walled lily-pond.

*

Two: indoors, a didactic exhibition of urbanism, intended to sell town-planning to the ordinary Milanese in the street. No very new ideas apparently, but presentation in the most brilliant Italian manner, with sloping floors, ultra-violet light, photographs of Corb and Dawn Addams, short films, the lot in fact. Three: outside again, two domes by Buckminster Fuller (see page 400), made, this time from triangular units folded up from heavy cardboard sheets, and covered with a kind of toilet-bag plastic, one containing desert plants, the other a domestic interior of sorts, plus the exhausted remains of the erection staff, who had battled uncertain weather to get this 1,000 square foot house erected in two days (you might like to cut out that last remark and send it to your contractors).

*

Four: inside of the fabulous Spanish section, consisting largely of empty space, in which there occurred at widely spaced centres, a few bottles, a couple of pairs of straw-soled slippers, an embroidered skirt, some obscure pieces of forged iron sculpture, and Salvador Dali's *Million-Dollar Heart*, glittering with gold and rubies and pulsing visibly, if sluggishly. Very odd, but generally

voted rather effective, unlike some of the other national sections, which are reported to have looked like department stores, suave and elegant in the case of the Scandinavians, crowded and trashy in the case of the French and Germans—in spite, be it noted, of the excellent quality of *some* of the material exhibited. It is not what you show, it's the way that you show it.

*

A certain tactful silence about the British section (of which the JOURNAL published pictures two weeks ago) could only be broken down with gin, and sharp twists of the arm. What emerged was the sentiment that Messrs. Day, Race, Hille and Black had done a praise-worthy job on a shoe-string. But why did it have to be a shoe-string, and why did it have to be a private venture? It was shouted down by the other national sections, but it was difficult to judge pieces of furniture with which one was familiar anyhow. In the Industrial Design section, which the Triennale authorities clearly regarded as the hinge of the whole exhibition, Britain was represented, according to reports, by plastic building toys for children, a washbasin and a WC. This may be perfectly fair... but it's not comforting to think that the organisers of the world's most discriminating exhibition should find only our toilet fittings well-designed. Or could it be that certain official bodies are not doing a very good job of telling the world about our products?

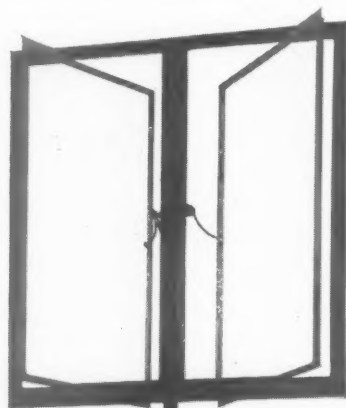
CHEAPER HOUSES?

Being no dab as an economist, ASTRAGAL is always awed by the operation of bank rates and such things

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and has no idea of what they mean to us poor mortals. It is intriguing to learn of the Halifax Building Society's proposal to reduce mortgage interest to 4 per cent., but one wonders how it will affect building. Does it merely mean that we or our clients—provided our unconventional plans are approved—can build a little cheaper and thus a little more? Or is there behind it all some dark hint of war between the giants and soaring or crashing property values? It always seems that only economists can ever explain whether such manipulation produces slump or boom and they, as someone once said, only know the answer to the last crisis.

WINDOW DRESSING

The names of Sir Gerald Barry and Misha Black being among those concerned with the National Display Convention, it seemed worth having a look at the exhibition held in the Royal Horticultural Hall. It consisted mainly of the apparatus of window dressing, from those rather obscene pink plaster casts and artificial flowers to gadgets which produce moving displays and paints which glow in the dark. There appeared to be little that was novel and less that was in good taste, though there was something fascinating about the inflatable female figures and flexible bosoms and the expert sales patter that goes with them. Modern design has left its mark too, of course; there was even a group of pseudo-Moore figures with holes in them for displaying something or other. But if this show is any indication of next year's window display standards we shan't see any startling improvements.

THROUGH THE GARDEN WALL

Cecil Handisyde congratulated the Institute of Clayworkers on their recent craftsmanship competition when speaking at the prize-giving last week. He also described the standard of design of some of the set pieces in the building schools as deplorable. ASTRAGAL agrees with both sentiments. The problem set the craftsmen was to design and build an opening—without a gate—in a brick wall to serve as an entrance for a public garden. Cecil Handisyde, M. S. Whitehouse, chairman of the Institute of Clayworkers, and J. C. Hodge, of the Guild of Bricklayers, assessed the ten best entries

selected for actual building. The winner (of £50) was J. W. Field for



the design above. An inoffensive, straightforward design, although to nice old traditional eyes these flat reinforced arches in brick are a trifle too smart.

Just to show the whole picture, however, here, below, are two non-prize-winning entries from the top ten which start to show the point of Mr. Handisyde's criticism. Excellent examples of



skill and dexterity maybe, but surely doubtful practice and, in appearance, akin to the cosy fireplaces and ornate garden walls of endearingly repellent suburbia. While wholeheartedly supporting the idea of craftsmen being interested in design, and all praise to the Institute for their initiative, one cannot help asking—is it necessary for bricklayers to have to learn such complicated work when the uses to which such dexterity will be put will inevitably look so crude? Ornamental brickwork should join Oscar Wilde's definitions of folk dancing and incest as things one doesn't do.

STREET FURNITURE

The latest number of the COID's journal *Design* is largely concerned with street furniture and is recommended to all those who complain about the way our streets and roads are becoming cluttered up with ugly impedimenta. The examples showing

the influence of the COID on lamp standard manufacturers' designs, for instance, demonstrates the value of the COID with devastating clarity. The COID has now approved 500 designs for lamp standards, so those who have been fobbed off with borough engineers' explanations that good designs are not available can now return to the attack. There is no excuse now for a local authority erecting hideous lamp-posts—or, judging from this issue of *Design*, for any other ugly street furniture either.

*

While on the subject of street furniture, however, I cannot resist asking three simple questions in the hope that someone will provide official answers. Firstly, as it is nowadays not uncommon to find lamp posts, belisha beacons, traffic lights and sign posts forming iron jungles at street corners, why cannot a single standard pole be designed to carry—with suitable arm extensions—all the transport paraphernalia? Secondly, why cannot all street lights in old villages and towns be bracketed off the buildings themselves? Thirdly, on behalf of the champions of scale in the street scene, why are high, widely-spaced lamp standards cheaper, or more efficient, or whatever it is, than low, closely-spaced ones, and by how much?

LOCAL AUTHORITIES AND ART

Mr. Hayward, leader of the LCC, seems embarrassed by the problem of whether—and if so, how—a local authority should spend money on "Art." He had in mind, presumably, the fuss over Manchester's Henry Moore. Surely, there are two solutions. One: to appoint good art gallery curators and allow them, in collaboration with the best consultants in the world, to do their own buying. Two: to let the architect of any new local authority building nominate his own painters and sculptors. This, of course, in accordance with an agreed budget. Hertfordshire, in the days of its glory, did allow a small percentage of the cost of each school to be spent in this way . . . but that was in its enlightened period when all the world came to England to go to Hertfordshire.

ECCLES AND MITHRAS

If the martyrs of the first century had succumbed to persecution mediæval Europe would presumably have built



Wall Drawing

Among the outstanding features of the Tenth Triennale exhibition in Milan this year is the labyrinth in the Parco Sempione. Designed by the BBPR office it consists, as the smaller picture shows, of a series of curving brick walls which lead the visitor in to a central feature—which is also the exit, a process which is further shown in illustrations on p. 397. The inner faces of all these walls have been decorated by Saul Steinberg, seen at work above, with drawings in wet plaster in the time-honoured *sgraffito* technique. This display of architectural wit, and of architectural witticisms, by architects and ex-architects, is intended for the delectation, not of the profession, but of the public—and, to judge from the steady stream of appreciative visitors during the “popular” hours, it has fulfilled its intentions.

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The Editors

AN ARCHITECT FOR EVERY BUILDING

A LOCAL newspaper in the north of England recently published a news item of some local importance—it announced the building of a new factory which was likely to improve employment prospects in the area. The scheme, it stated, was to cost £150,000. The local paper went on to announce, with obvious pride, that the designs for this factory were produced by a surveyor who, employed by the local authority, worked in the evenings to produce his plans. Many architects' immediate reaction on reading this widely publicized piece of "government subsidised" poaching by the member of a sister profession would be to make a plea for some form of legislation to stop this sort of thing.

Obtaining such legislation, however, would be both time and money consuming, and dependent, in the end, on public feeling. There is, however, another way in which this end could be achieved without running such a risk of losing the public's goodwill. It depends on the sense of personal responsibility on the part of every architect towards serving and making use of, his professional organization. The architectural profession can best counteract the poaching of jobs by other professions—the under-cutting of fees, the spec. builders house designs, and the rest, by taking action itself through its professional bodies, the allied societies and the RIBA.

The news item mentioned above is but one example of a nation-wide trend—it only came to the JOURNAL's notice because it was reported by the local press. And from time to time notice of other cases are received from architects in various parts of the country. But there must be hundreds of other examples of building work being carried out without the advice of architects which are known to members of the profession and about which nothing at present is being done. We suggest that the profession should make it a duty to see that something is done. If every architect notified the RIBA—or even an allied society—immediately a non-architect designed building was started, or, more pertinently, as soon as such a project was mooted, then at least an attempt could be made by the RIBA—or the allied society—to approach the

its cathedrals to the glory of Mithras, God of the Morning . . . and we should all have been quite different. It was not, presumably, their own very narrow escape from Mithraism that caused Ministers of the Crown and some thousands of common citizens to converge upon Bucklersbury to see the bare traces of the Roman temple. The Romans, who must have completely eradicated many Greek and Druidic temples, would have been amused, since they never took their own religion very seriously. One wonders whether, in 4000 A.D., there will be queues to see the last fragments of Bucklersbury House.

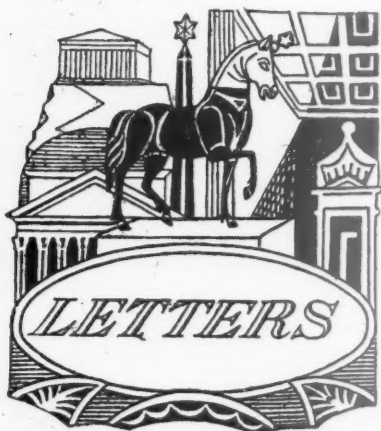
Judging from a quick look at plans and site it should not be as difficult or expensive to preserve the remains as statements in the Press by architects, engineers and others might suggest. Two columns would have to be removed and the position of four or so others altered (the temple is only 60 ft. by 25 ft. and only about half the ruins will be under Bucklersbury House. Rising damp and extra piling might be the biggest nuisance. The temple lies just under the floor slab and occupies about one quarter of what will be a basement restaurant for Lyons. With slight alterations to the kitchen planning, and a mezzanine floor level to maintain the same dining area, Lyons could acquire an excellent tourist attraction (think of the menu: Mithraic (lamb) offering and 2 veg., Phrygian (fruit) cup, and so on) in the form of a Roman temple sub-basement.

These temple remains, though archaeologically and historically interesting, are architecturally trifling. Nevertheless, even ASTRAGAL's hard heart puts in a plea for government funds to help towards their preservation. The tiresome thing is that if the government had planned things properly and provided funds for excavation, all this, and, no doubt, more, could have been found ages ago, allowed for in designing, and no expensive hold-up for the site-owners and contractors would have occurred. Black marks all round, and you can be sure of one thing: in future, other contractors in the City will do their best to make sure that no Roman remains are ever found on their sites.

ASTRAGAL

clients on behalf of the profession as a whole. Its approach could be along two lines. First, it could inform the client as to the particular advantages of employing an architect, and second, it could supply the client with a list of local practitioners and, if necessary, its rules for the holding of competitions. At present the RIBA makes just such an approach when requested by a potential building client. But the initiative has to be taken by the client. This policy leaves too much to chance.

The sooner clients not using architects were notified to the RIBA the sooner persuasion could be used and the better would be the chance that the work would ultimately go to one of the profession. Such a scheme could only work, however, if supported by every member of the profession, who would have to put considerable pressure on the already hard-worked staffs of the RIBA and the allied societies to ensure that no opportunity was missed—however small—for ramming home—by direct contact—the advantages of using the architect.



W. J. Oliver, A.R.I.B.A.

A. E. Ward, F.C.C.S.
Secretary IRA

L. A. Reeves, A.R.I.B.A.

"Blackleg," A.R.I.B.A.

John Mutter, Student R.I.B.A.

Ban on Private Work

SIR,—What a deplorable state of affairs exists, when a few are permitted to bring discredit upon the majority of Local Government Officers.

All loyal members welcome the ban, and I shall be interested to know if Hastings have an expeditious method of enforcement.

W. J. OLIVER.

Thundersley, Essex.

SIR,—Your leading article of September 2 on the banning of private work to public architects was of considerable interest to this Institute, the majority of whose members are engaged in private practice.

When you outlined two major objections—with which there must be general agreement—you could doubtless have mentioned others equally strong. For our part, as an Institute, we are concerned to ensure that private architects are given full opportunity to make their distinctive contribution and are not completely overwhelmed by the prevailing conditions which, since the war, have threatened their very existence.

It must be common ground among all who have the welfare of private architects at heart that they must unite to defend their essential interests and in doing so also safeguard much that is vital to the carrying on of their art.

It is interesting to recall that the London Building Act, 1894, provided that when a practising architect was appointed to the office of District Surveyor he was not allowed to act as architect for any work carried on within the district of which he was in charge. May not this example suggest a solution to this problem?

A. E. WARD.

London.

SIR,—Generalization and exaggeration carried to the extreme of absurdity as in D. Walford Locke's letter can form no argument for banning public authorities from carrying out private work. If architectural work were to be "farmed out" to private architects there would be no outcry regarding the much higher rates thereby made necessary, at least from the private practitioners. This, of course, raises the sore question of salaries which is outside the scope of this letter.

Having carried out, from receipt of instructions to signature of contract, a private job of my own, I am in a position to state that it is perfectly possible to do this without infringing any of the Codes of Professional Conduct, without allowing the work to overlap into office hours, and without any conflict of loyalties.

There always remains, of course, the freedom of the client to choose his professional adviser and, provided there is no suggestion of undercutting the RIBA scale of charges, private architects generally can have no

complaint. Let them go all out for the 75 per cent. of building work which I believe is not at present carried out by the architectural profession.

L. A. REEVES.

Romford, Essex.

SIR,—Mr. D. Walford Locke has rather missed the point (the sore one) and perhaps some information from the other side of the fence might help him.

Let him consider a not so purely hypothetical case: Mr. Smith tells me that he intends to buy a new house and he has seen just the thing in a small estate which a local spec. builder is developing. He is going to put his name down for one of these houses and it will cost him, all in, about £2,000. I tell him the usual tale and send him home with a pile of A.J.s to look at all these much nicer houses. In a week or two I see him again. These nice houses all cost too much and he feels that it's a bit thick when the nurse's bedroom communicates with her W.C. by means of a gallery slung over the fireplace and open to the living-room. I point out that the client must have liked it that way and that is the beauty of going to a private architect. He points out that the beauty of going straight to the builder is that he will get just what he likes and know just what it will cost. Further, if he wants a house on one of this builder's sites the builder will have to approve the design of any deviation from his stock plans and, of course, the builder will build. Other available sites will be far too expensive in roads and services. However, if it will make me any happier, perhaps I would knock him up a set of drawings, as long as the builder is happy and it doesn't add more than a few pounds to the total cost.

Now, I am employed by a local authority. I did not seek this little private job, but in the interests of Architecture (and certainly not against the interests of any section of the Profession) my course is clear. I am conceited enough to believe that my design will be an improvement on the spec. builder's job. The drawings will be done in my own time and in my own house. I will not be required to obtain tenders or to supervise on the site. On handing the drawings to Mr. Smith I shall receive a fee based on the excellent principle of *quantum meruit* and my professional relationship with him will cease.

I shall pay tax on my fee and rates on my house and I shall not feel that I am taking any bread out of the mouth of Mr. D. Walford Locke.

"BLACKLEG."

Durham.

Local Materials

SIR,—ASTRAGAL asks (Sept. 16) why our nineteenth century buildings fit so well into the landscape. Surely the photographs accompanying his column provided the answer: local materials used by local craftsmen. The invasion of pink brick, blue glazed tiles, corrugated asbestos—into the farthest corners of the land seems to have been accepted with little resistance.

However, it is gratifying to find one local planning authority about to point a guiding finger in the right direction to counteract the wanton use of these ugly (manufactured) materials in areas of natural beauty. The proposal by the Devon County Council to publish an illustrated booklet for the guidance of all interested parties who carry out any building operations in the Dartmoor National Park, is to be highly commended.

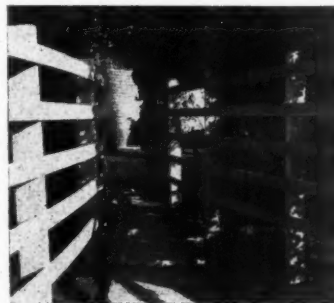
JOHN MUTTER.

Axminster.

MILAN TRIENNALE : the maze



Above, the architects and decorator of the Triennale labyrinth, Peresutti, Belgioso and Rogers, with pipe, of the BBPR office, and Saul Steinberg, in hat. Centre, left, the palisades which guide the visitor into the entrance of the labyrinth; right, the first interior space with its flooring of granite chips and large separate flag-stones; bottom, the point just before the centre of the maze, where the path rises high enough to afford a brief view over the walls of the complete layout.



CAMBRIDGE

Validity of Plan Challenged

The Cambridge Corporation are to contest in the High Court the validity of the revised County of Cambridge development plan which the MOHLG approved with modifications earlier this month. This is only the second instance in which a local authority, acting under Section 11, subsection 2, of the '47 Act, has decided to apply to the High Court. The name of the first applicant has never been made public. The ground on which the Cambridge City Council base their objection is understood to be the absence of any statement of positive approval of the plan from the resolution of the Cambridgeshire County Council, the statutory planning authority, when they authorized the submission of the draft development plan to the Minister. The Cambridge Planning Committee have stated that well considered objections to the plan have been overruled or rejected without reasoned arguments from the Minister.

MOW

Competition for Office Furniture for Government Departments

The MOW has invited certain manufacturers to take part in a competition for office furniture for Government departments. Although the competition is restricted to manufacturers they may employ outside designers if they wish to do so. The object of the competition is to find a high standard of design suitable to present-day needs. Manufacturers have been given a general indication of the requirements but will have a free hand in the design and in the choice of materials. Entries for the competition will be judged by a panel under the chairmanship of Sir Hugh Casson. The members of the panel will be:—J. Howe, of the SIA; H. J. Cutler, Head of the Furniture Department, High Wycombe College of Further Education; G. E. Dunn, of the COID; Eric Bedford, Chief Architect, MOW; A. L. Barclay, Deputy Controller of Supplies, MOW. The closing date for the competition is October 28.

TCPA

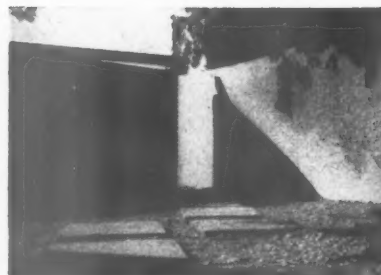
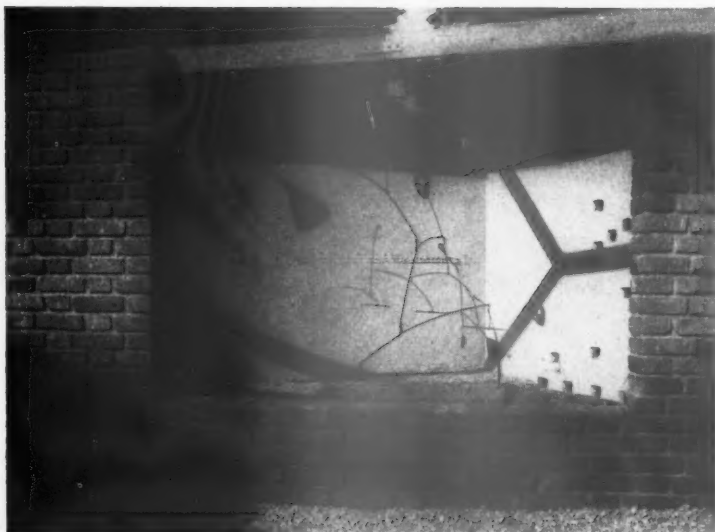
The Planning Forum

The Students' Planning Group of the T CPA have reorganised their group and re- (Continued on page 401.)



the maze (continued)

Top, Steinberg's view of the Milan skyline, with the real skyline (the tower of the Castello) appearing over the wall; centre, left, his team of assistants who carried out much of the work in the first part of the maze. The drawings were scratched in a coating of grey, marble-dust plaster while it was still wet, revealing a layer of dead black plaster below it. Centre, right, two typical short-hand ideograms from the hand of the master himself, near the centre of the labyrinth; bottom right, the last sizable interior space before the central feature, of which the pierced wall gives



a preliminary glimpse. It consists of (left) a large mobile sculpture by Alexander Calder, suspended above a lily pond. Turning left at this point, the visitor would see the exit, which adjoins the entrance, but is masked by the palisades.

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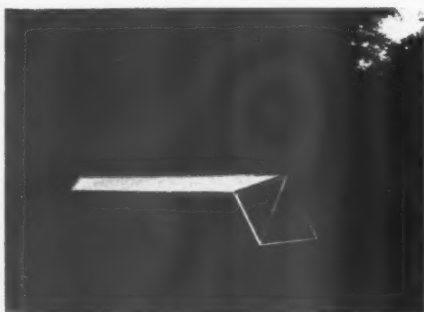
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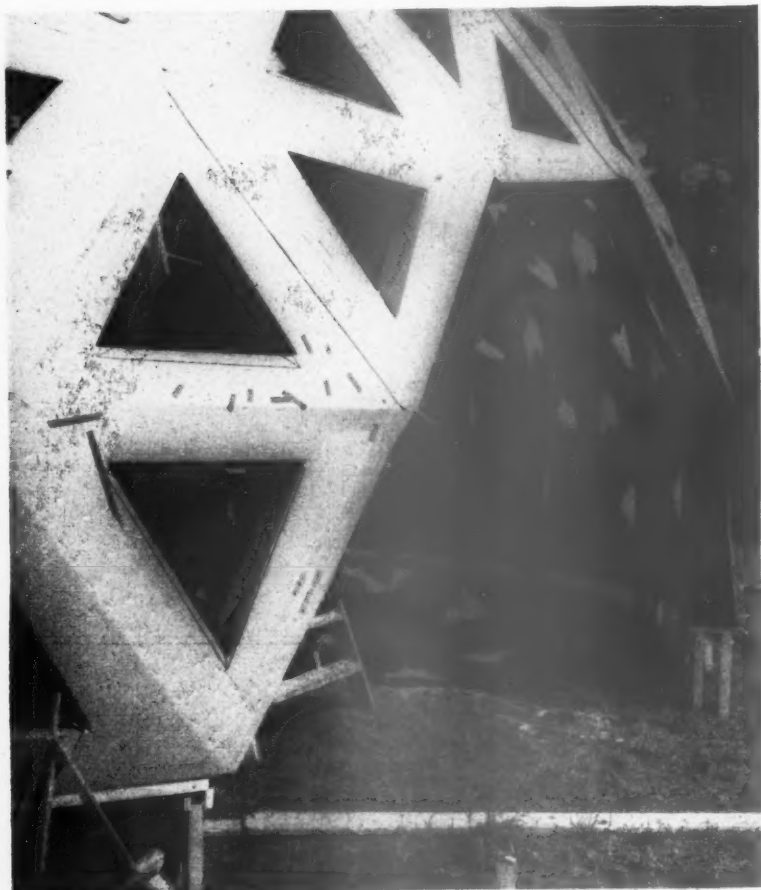


MILAN TRIENNALE industrial design

This year's Triennale marks the first formal acceptance by Italians of Industrial Design as a specific problem in its own right—they have even taken over the words Industrial Design, untranslated, as the label for the problem—and the key section of the exhibition was a special display of selected well-designed products, seen, above, from across the main staircase of the Palazzo dell'Arte. The enormous "lampshades" are made by stretching cloth over hoops eight to fourteen feet in diameter and suspending them from their

centre-points; they act as light diffusers as well as forming a visual ceiling to a room which is too high. Below, an experimental house, developed by the B.24 group; the structure is of slotted metal strip, which begins to find increasingly wide applications in Italy, and is based on a system of equilateral triangles. The chassis is of reinforced concrete.





MILAN TRIENNALE:



Above, and left, one of the Buckminster Fuller domes in course of erection; the structure is of large diamond-shaped units, cut, folded and stapled from heavy packing-card, forming box-girders of about seven inch section. Since there are about 130,000 staples in each dome, demountability is not up to normal Fuller standards. Weather protection is by means of a vinylite tent, pulled tight over the frame as in the right-hand illustration below, which shows a dome used as a plant-house; the other, left below, was fitted out by Roberto Mango as a 1,000 square-foot dwelling house. The useful life of these cardboard structures has not yet been evaluated, but the use of a plastic-based glue in laminating the boards (a normal technique of Container Corp. of America, sponsors of the project) gives a high proofing against both damp and fire.



dome

Above,
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Albini
Salone
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domes and pavilions



Above, a bar and lounge in the Parco Sempione, a permanent structure covered by a folded-slab concrete vault calculated by Luigi Antonietti; right, the scaffold structure (topped by lamp bulbs) designed by Franco Albini to support the auditorium in the Salone d'Honore; below, the Finmeccanica Pavilion, standing in the lake, beyond which is seen one of the Buckminster Fuller domes, and the Arco della Pace, outside the exhibition, but marking the main planning axis of north-western Milan.



News — (continued from page 397)

named themselves *The Planning Forum*. They will meet fortnightly through the autumn months, starting on Monday, October 4, at 6.30 p.m. The Club room at the Planning Centre will be open from 5.30 p.m. for tea. The subscription for membership of this group is 2s. a year and is open to anyone wishing to attend these meetings. Maxwell Fry will open the session with a talk on "Does Town Planning Work?" The programme for the rest of the autumn will be:—October 18, Sir George Pepler on "Preservation and Progress." November 1, P. W. McFarlane on "Planning an Arab Town: Kuwait, Persian Gulf." November 15, J. R. James, senior research officer, MOHLG, on "Social and Economic Aspects of County Development Plans." November 29, Desmond Heap, comptroller and City solicitor to the Corporation of London, on "Planning and the New Bill." December 13, L. T. Wilkins, of The Social Survey, COI, on "Statistical Methods and Planning."

DSIR

Water Pollution Research Laboratory

On October 1 the Water Pollution Research Laboratory will move from its temporary premises in Watford, Birmingham, and elsewhere, to a new permanent building in Elder Way, Stevenage, Herts. Although most of the staff are moving in during October it is likely to be some time before all the equipment has been installed and work is proceeding smoothly. It is not likely that an official opening will be made before the spring. The new premises include a three-storey block, containing administrative offices, an information section and micro-biological, chemical and physical laboratories. There are also four pilot-scale laboratories and facilities for building larger experimental plant in the open. Special facilities have been provided for experimental work on the treatment of sewage and industrial wastes. For example, up to 50,000 gallons of domestic sewage per day can be pumped for experimental purposes from a sewer crossing the site. There is a radio-chemical section which will be concerned at first particularly with problems of disposing of radio-active liquids. Two of the pilot laboratories are designed for experiments on the effect of pollution on fish; this work is carried out in collaboration with a team of biologists of the Ministry of Agriculture and Fisheries.

LMBA

Practice Arbitration

The LMBA, in conjunction with the Institute of Arbitrators, is holding another practice arbitration in the Henry Jarvis Hall of the RIBA on the evening of Thursday, October 21. Some three years ago it held its first practice arbitration, again with the co-operation of the Institute of Arbitrators, to show its members just how the system works. Since then many requests have been received for a repeat performance. The question at issue in this next arbitration is a dispute between the owner of a boys' preparatory school and the builder who has carried out some alterations for him. The Arbitrator will be E. D. Jefferiss Mathews, F.R.I.B.A., A.R.I.C.S., and the parts of the architect and the builder will be taken by P. V. Burnett, F.R.I.B.A., and A. W. Yeomans, respectively. The "building owner" will be R. E. Stenning, secretary of the LMBA, and counsel in the case will be J. Fox-Andrews and P. Macnair. Admission is by ticket only.

BCC

*Designers Conference,
Glasgow*

Speaking at the dinner which opened the BCC's twelfth conference at Glasgow recently, W. A. P. Jack, President of the Glasgow Institute of Architects, said he considered the British Colour Council was fulfilling a great service to all designers and those connected with colour. He thought the BCC were to be congratulated on holding the conferences alternately around the country thus allowing members to be refreshed by different environments and to take the British Colour Council's work to parts of the country where it may not be as well known.

During the Conference a panel of speakers answered questions representing the views of the architect, the retailer, the ships' decorator and the designer. J. L. Gleave represented the views of the architect. Answering the question: Is colour helping or or destroying architecture? Can colour emphasis be accused of improving indifferent design by false expressionism? he said he considered we were moving from a phase when colour had been used to cover up indifferent materials, he considered also that we were moving away from the use of sculpture and decorative carving built in to the scheme, there was now a tendency to use such features only as movable objects.

YORK

Guild of Building

A Guild of Building is being formed in York. The Guild is intended to bring together all those concerned in the building industry in York. It has as its objects the advancement of design, management, science, and craft in building and the encouragement of a better understanding of the problems and achievements of those engaged in building. These objects will be furthered by a suitable annual programme of lectures, visits, debates and social functions, competitions, the issue of publications and any other activities which may from time to time be considered to be desirable. The decision to form the Guild was taken at a meeting held on February 4 which was attended by York members of the RIBA, the York Building Trades Employers' Association, the NFBTO, and the York Members of the Quantity Surveying profession. The meeting had the benefit of the presence of the President and other officers of the Hull Guild of Building to address the meeting and give valuable information and advice on the formation of such a Guild. A committee was formed consisting of E. Firth and C. Rowntree, representing the Architects, P. M. Shepherd and A. E. Sorrell, representing the Employers, G. Westerman and J. Wilson, representing the Operatives, and D. B. Holman and L. Whiteman, representing the Quantity Surveyors. G. Dickinson, the Head of the Building Department at the Technical College was also made a member of the Committee.

MONOPOLIES

*Commission Censures London
Builders' Conference*

The Monopolies Commission recommend Government action to end agreements or arrangements amongst builders to fix prices or in other ways restrict competition. Refer-



The Town Planning Commission of the International Union of Architects has met for the first time in London. The Members of the Commission who attended the meeting, which took place at the RIBA on September 16 and 17, are seen above on the main staircase of the RIBA building. Left to right: Professor W. Hebebrand (W. Germany), M. T. William-Olsson (Sweden), Sir Patrick Abercrombie, Professor A. Gutlon (France), Arthur Ling (United Kingdom) at back, and Professor A. Hoechel (Switzerland).

Sir Patrick Abercrombie, President d'Honneur of the IUA, took part in the discussions which covered the following subjects: an international notation for town planning maps and plans; documentation; the role of the architect-planner in the development of town and country; the danger of housing without town planning, which it is proposed should be the subject of reports from various countries at the next Congress to be held at The Hague in July, 1955. After visits to see the town planning and housing work of the LCC and the new town of Harlow, the members attended a reception given by the President of the RIBA on Friday, September 17.

ring to the London Builders' Conference the Commission stated: "Any communication of prices between competitors or, still more, any adjustment of the amounts of tenders by arrangement between builders, appears to us to frustrate the purpose of this system of tendering, since the tenders cease to be the independent offers they are held out to be."

The London Builders' Conference maintain that their arrangements tend to discourage price cutting, which leads to depreciation of quality, and secure fair prices. The Commission reply: "There is nothing either in the evidence or in reason to show that the London Builders' Conference's arrangements achieve their avowed purposes. . . . They may have some slight effects in this direction, but we are not satisfied that these are of substantial significance." The report also criticizes the Conference's "fair price" scheme, a scheme now stated to be in abeyance. The report states that the scheme works as follows: "Where, in the chairman's (Sir Alfred Hurst, a former Under Secretary of the Treasury) opinion the preliminary (tender) prices show an unduly widespread, the average of the lowest two-thirds becomes the fair price and the chairman directs the lowest tenderer to increase his price by a sum sufficient to raise his price to the fair price. An even clearer case of restriction of competition occurs when the chairman detects an un-economic price and the tenderer accepts a recommendation to withdraw."

The London Builders' Conference operates over an area roughly similar to the London Civil Defence area, which includes the counties of London and Middlesex and parts of Essex, Herts., Kent and Surrey.

CPRE

National Conference

The fifteenth conference for the Preservation of the Countryside will be held at Shanklin, Isle of Wight, from October 7 to 9. It will be opened by Lord Mottistone, president of the IOW branch of the CPRE. Three papers will be read: "Planning Problems in a seaside county" by J. G. Jefferson; "Building in the countryside" by C. W. C. Needham, and "Methods of refuse disposal in town and country." In addition, Sir Patrick Abercrombie, chairman of the CPRE will preside over an informal discussion, subjects for which are invited in advance. The conference is not confined to members of the CPRE.

DIARY

Wood Bending, Brickmaking for Rebuilding Britain. Two films at the BC, Store Street, W.C.1. 12.45 p.m. OCTOBER 6

Specifications and Bills of Quantities: Their Use and Inter-relation. Discussion opened by A. R. F. Anderson, F.R.I.B.A., J. A. Burrell, F.R.I.C.S., and D. E. Woodbine Parish, F.I.O.B. At the RICS. Admission by ticket only. 6 p.m. OCTOBER 20

Design of Health Buildings. Conference at the RIBA. Tickets 10s. each.

OCTOBER 21 AND 22

BUILDINGS IN THE NEWS

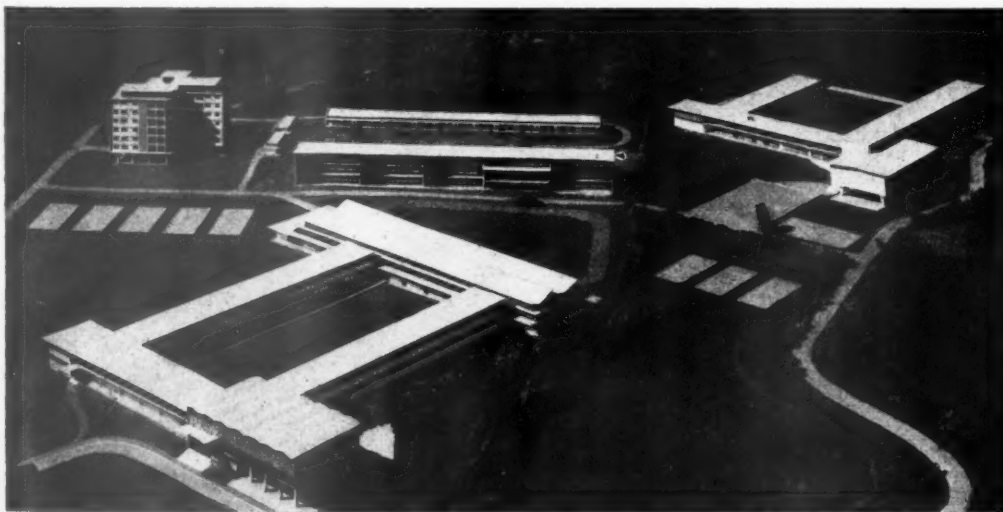
Flats on Campden Hill



The LCC Tor Gardens Estate, Campden Hill, W.8, which is now nearing completion, is designed by Dr. J. L. Martin, Architect to the Council, Whitfield Lewis, Principal Housing Architect, Michael Powell, Assistant Housing Architect, Ronald Knight, architect-in-charge, W. H. Allen, Beryl Wood and A. Westwood, assistants. The development consists of two separate blocks on sites divided from each other by Hornton Street, and originally occupied by bombed property. The photograph, right, shows the south facade of three-storey, balcony access flats and above is the east facade of the four-storey, balcony access maisonettes. It is hoped to illustrate the estate fully at a later date.



University of Rangoon, Burma



Work will begin next month on these buildings designed by Raglan Squire and Partners. The model photograph shows the polytechnic, bottom left, teachers' flats, top left, and high school, top right. General contractors, Taylor Woodrow, Ltd.

GRAIN SILO

at HAUGHLEY, STOWMARKET, SUFFOLK

designed by chief architects' division, MOW

senior architect, A. SWIFT; engineer, G. C. KIM

This silo, one of several which have been erected for the Ministry of Food, is equipped as a high-speed drying plant for home-grown wheat. The need for these silos to dry and condition grain has been brought about by the rapid change-over to the use of combine harvesters. The grain comes to the silo direct from the harvesters, instead of being stacked in the fields to dry, as in old-fashioned farming methods.

Grain feeders and dust extractors on the seventh floor.



*Above
of the
Haugh*



Ground floor plan [Scale : $\frac{1}{8}" = 1' 0"$]



Above, part of the top floor of the tall working plant house showing head of the grain intake system and the dust extraction cyclones on the left. Below, the base of the grain drier at ground floor level. Below, right, part of the sack chute for husks and dust which are collected from the grain, and finally discharged at ground level.

GRAIN SILO

near STOWMARKET, SUFFOLK

designed by chief architects' division MOW

and elevating operations are effected mechanically by chain-type conveyors or elevators. When the grain has been raised to the top floor of the working plant house, which is over 100 ft. high, it is fed into vertical drier columns and heated air is passed through it by fans. The air is warmed by steam heaters and is exhausted to the outside atmosphere through cyclones which separate and collect the dust contained in the air stream. This dust is discharged through safety rotary valves into sacks and eventually burned. The driers contain three sections, namely, sweating, drying proper and cooling. The heat recovered in the cooling section is re-used. The intake capacity of the silo is thirty tons per hour and drying takes place at ten tons per hour. These amounts strike a general balance during the harvest period as intake generally only takes place during working hours, but drying is a twenty-four hour process. The storage bins are interchangeable for wet and dry grain.

CONSTRUCTION.—The silo is constructed entirely of reinforced concrete, with the monolithic central structure carried on a r.c. raft. The covered ways are spanned by free-standing r.c. portal frames.

SERVICES.—Steam is provided by a horizontal



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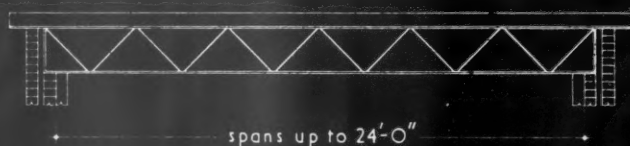
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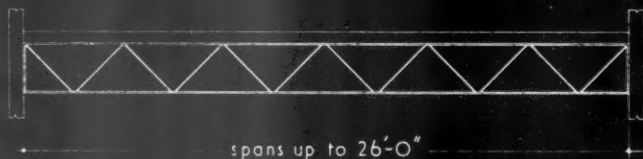
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FLOOR AND ROOF STRUCTURAL ELEMENTS | STEEL**20.C13**

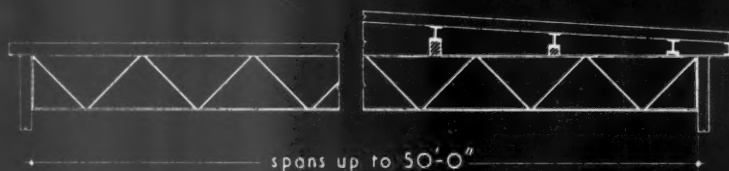
The Architects' Journal Library of Information Sheets 487. Editor: Cotterell Butler, A.R.I.B.A.



TYPES W6 TO W12. (for roofs)



TYPES W14 AND W16. (for floors and roofs)



TYPE H.T. ALL SIZES. (for flat or pitched roofs)



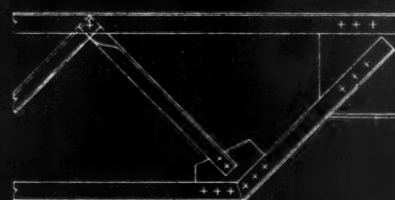
TYPE H.T. PITCHED BEAMS.



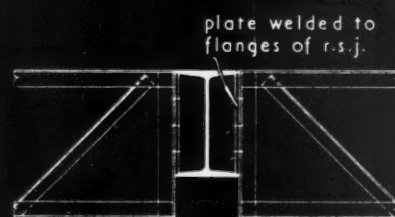
TYPE H.T. USED AS PURLINS. (for housing)



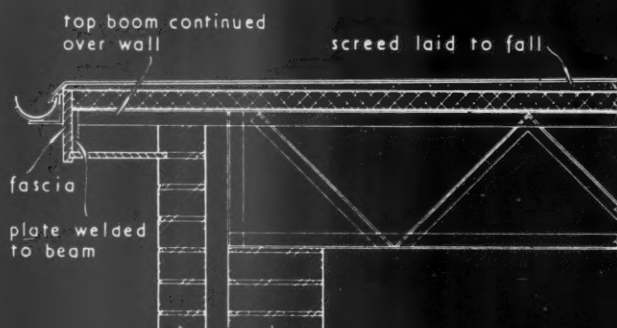
STANDARD END.



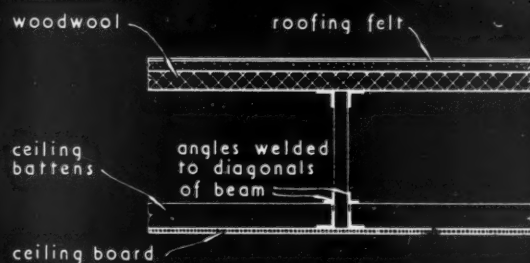
SHAPED END.



DETAIL OF JUNCTION WITH R.S.J.



DETAIL OF EAVES CONSTRUCTION. (both types of beam)



DETAIL OF CEILING CONSTRUCTION. (both types of beam)

SOMMERFELDS' STEEL LATTICE BEAMS: APPLICATIONS.

Compiled by R.A. Sefton Jenkins B.Sc., A.C.G.I., A.M.I.Struct.E., A.M.I.C.E., consulting engineer, in collaboration with O. Schalscha, Technical Director of Sommerfelds Ltd.

20.C13 'SOMMERFELDS' STEEL LATTICE BEAMS : APPLICATIONS

This Sheet is one of a series dealing with structural components fabricated from light steel sections. It deals with applications of welded and high-tensile lattice beams. Sheet 20.C10 gives general data on the beams and tables of safe loadings.

General

The beams are suitable for all types of floor and flat roof construction and also for pitched roofs, as shown in the diagrams on the face of the Sheet.

Floors: The beams have been designed to be used at 3 ft. 4 in. centres to take light concrete slabs.

Flat roofs: The beams may be used with any type of roofing, e.g. woodwool (reinforced or with purlins), straw slabs, or metal or asbestos-cement decking. Where the decking can be fixed rigidly to the top of the beams it may be possible to omit lateral bracing. Where this is not possible light angles should be introduced between the beams.

Pitched roofs: Pitched roofs can be constructed either by using specially-fabricated pitched beams or by placing timber packing under the purlins. The method of using lattice beams as purlins in pitched roof construction, which is shown on the face of the Sheet, is very economical and is approved by the L.C.C. For a single pitch the beam may be built into the structure at a slope.

Fixing

The beams are normally supplied with square ends for building into the brickwork as the walls are

constructed. Alternatively, they may be fixed to stanchions of either box or I-section or to main I-section or heavy lattice beams. Shaped ends for fixing to concrete columns, etc., may be obtained for use where the square end is impracticable. Where lattice beams are used as purlins, special devices to facilitate the fixing of timber to steel are available. A roof overhang is neatly effected by continuing the top boom of the beam over the support as shown in the detail on the face of the Sheet. Ceiling battens can be fixed to the lattice beams, as shown, by attaching small angles to the diagonals of the beam.

Further Information

The manufacturer designs structural steelwork of all types and can advise as to whether a lattice beam or traditional structure would be more economical in any particular case.

Compiled from information supplied by:

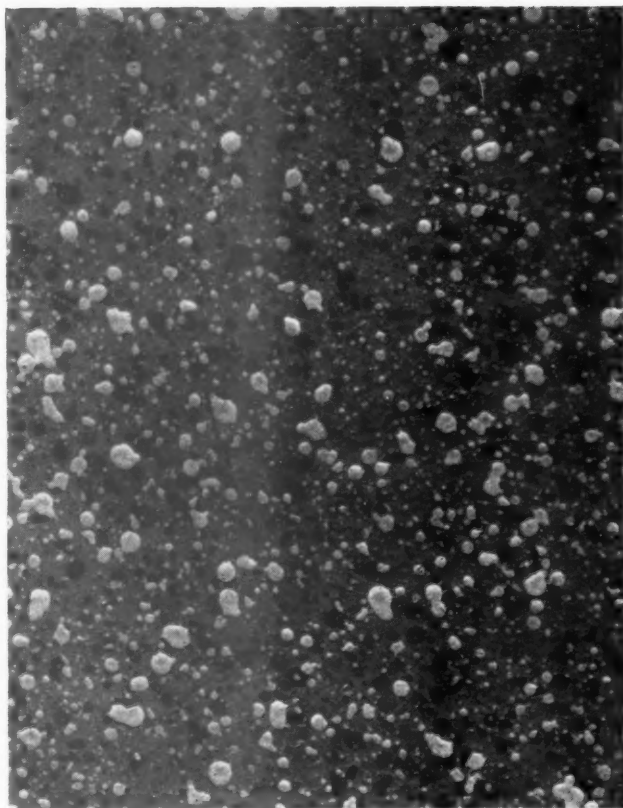
Sommerfelds Ltd.

Address: Wellington, Shropshire.
Telephone: Wellington 1000 (5 lines).
London Office: 167, Victoria Street, S.W.1.
Telephone: Victoria 1000 and 8843.

APPLIED FINISHES AND TREATMENTS | CEMENT

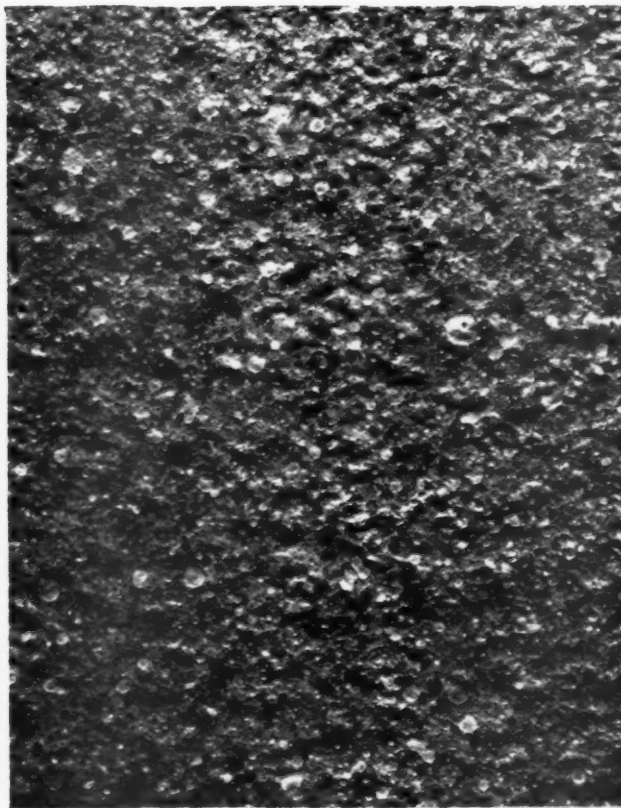
The Architects' Journal Library of Information Sheets 488. Editor: Cotterell Butler, A.R.I.B.A.

41.A1
41.A1



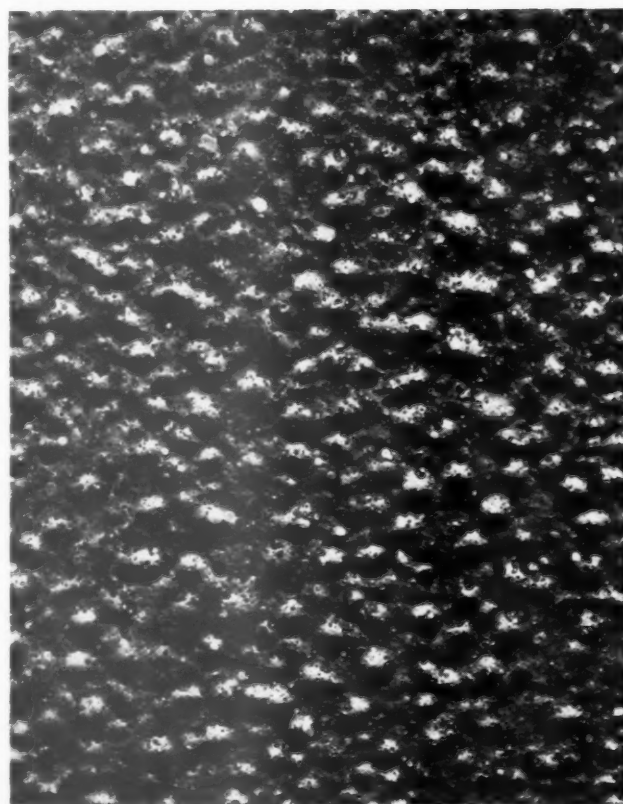
Semi-smooth finish

actual size



Spray glaze

actual size



Stipple finish

actual size



Stipple finish on flush-pointed brickwork

half actual size

41.A1 • GLAZEMENT • CEMENT GLAZE

This Sheet describes Glazement Cement Glaze, its qualities and applications, the three different forms in which it is supplied and gives the particular uses and approximate costs of each.

General

Glazement cement glaze is a permanent jointless wall decoration and consists of a pure white cement, tinted when necessary and gauged with a special liquid which causes it to dry with a natural glaze without crazing. This finish, which is essentially for internal use, is applied direct to cement-and-sand rendered walls, to shuttered concrete or to flush pointed brickwork, but can also be applied to any form of finished surface provided a special bonding coat is used. It gives a hard wearing surface with a life of twelve to twenty years without maintenance, depending on the degree of wear. As the cement base is permanent the only wear which will take place will be to the sealer coat which can be reapplied at approximately one-third the original cost per yard. As it has a high gloss finish, Glazement is easily cleaned with a wash down. It is non-staining, resistant to steam and, within reasonable limits, to heat. It is not damaged by fumes or dilute acids.

Method of Application

Glazement is applied by the manufacturer's own staff. Though the number of coats varies with the different finishes (which are described below) the essential operation remains the same in all cases and is divided into two phases. In the first, the cement itself is applied in a series of coats each slightly thicker than the coat before and in the second phase, which follows after a minimum interval of seven days, two coats of sealer are sprayed and one, two, or more mottlings are applied as desired.

Finishes

Glazement is supplied in three finishes: semi-smooth, stipple and spray glaze.

Semi-smooth finish: This finish is only for use on cement-and-sand rendering. It is described as "semi-smooth" because the high gloss makes it impossible wholly to conceal slight imperfections in the rendering though the use of mottling in contrasting colours will render them virtually invisible. The recommended specification for the rendered surface beneath should be as follows:

$\frac{1}{2}$ -in. scratch coat of Portland cement and clean plasterings and 1 : 3, followed by $\frac{1}{4}$ -in. skin of Portland cement and fine washed sharp sand, 2 : 5. Finish with a wood float to leave a surface resembling coarse glass-paper.

Semi-smooth finish comprises four coats of white or tinted cement, the first two of which are base coats and the second two are filling coats which are knifed off with a broad knife for the purpose of filling any unevenness in the surface, each coat being sand-papered before the application of the next. The second phase, which follows after the usual interval, comprises one sprayed filler coat and two sprayed coats of tinted sealer (which are standard for all finishes) and any additional sprayed mottling colours. The finished thickness of this application is $\frac{1}{8}$ -in.

Stipple finish: This can be applied to any surface and comprises three cement base coats which are brushed in, the third of which is textured by using a rubber stippler to produce a rippled surface. The operations in the second phase are as for the semi-smooth finish but omitting the filler coat.

Spray glaze: This can likewise be applied to any surface and comprises two brushed base coats the second of which is textured with a hair stippler to produce a finely textured surface. The usual spraying of the sealing coats and mottling colours follow in the second phase.

Cost

Costs vary necessarily with the size and location of the job. The figure ranges given below relate to areas not less than 100 yards super.

Semi-smooth finish	15s. 6d.—18s. 6d. per yd. super
Stipple finish	.. 11s. 6d.—14s. 6d. per yd. super
Spray glaze	.. 9s.—12s. 6d. per yd. super

The above figures assume the use of up to three colours additional to the background. Each additional colour adds approximately 8d. per yd. super to the cost.

Colours

The manufacturers have a standard range of twenty-one colours but will endeavour to match any special shade. Though plain colours are successful on the textured finishes, mottled surfaces are advised for the semi-smooth finish.

Compiled from information supplied by:

Robbs Cement Enamel Finishes Ltd.

Address: 245, Vauxhall Bridge Road, London, S.W.1.

Telephone: Tate Gallery 0091/2.

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boiler fitted with hand-fired forced draught furnaces and an automatic thermal feed system, in order that returning hot condensate can be fed directly into the boiler. A separate sectional boiler for the heating and hot water requirements of the office block is provided, since the main steam boiler operates inter-

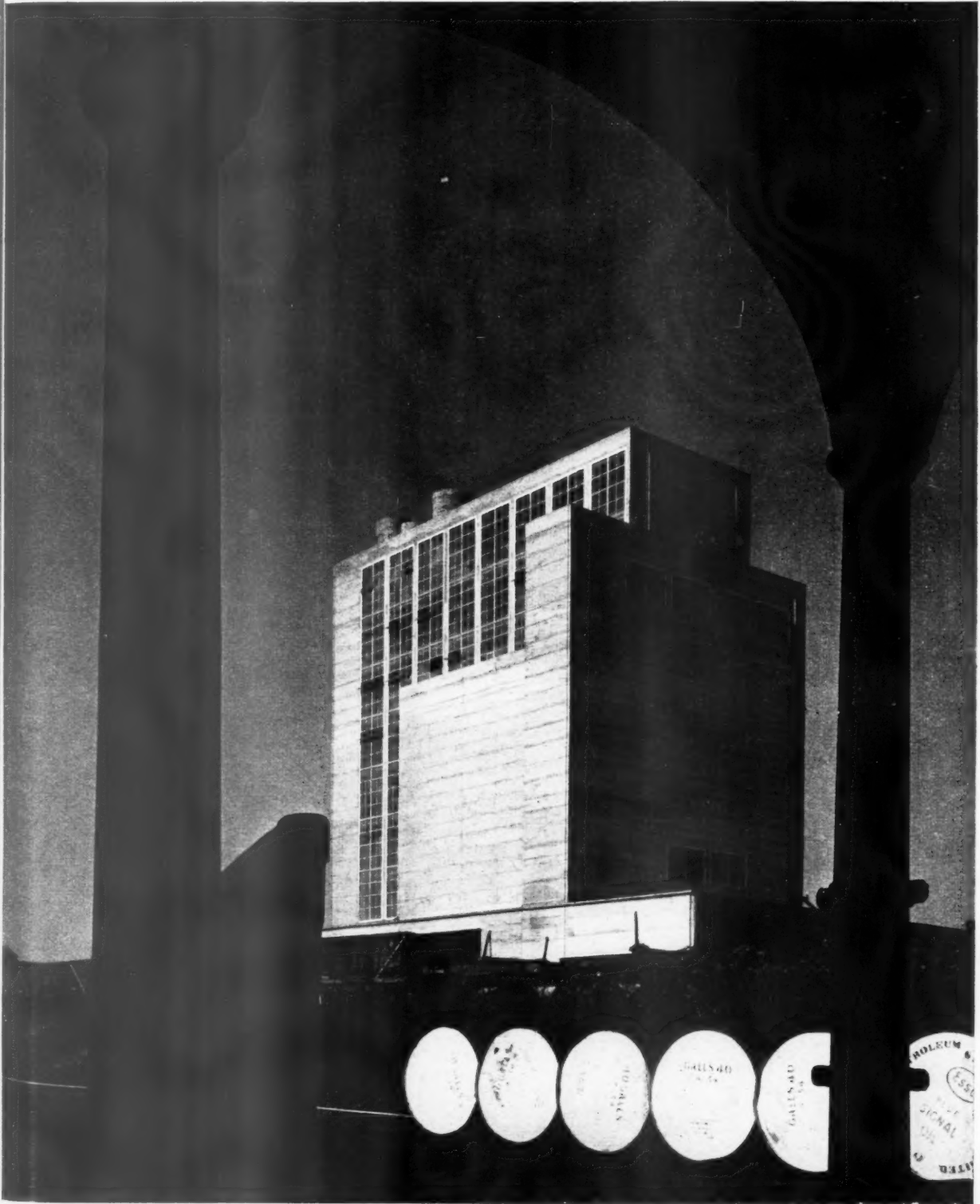
mittently during different seasons. All water requirements are obtained from a 6-in. bore hole, in which is fitted a plant for removing iron from the water. There is a lift to carry eight persons or 1,200 lb. of goods. The general contractors were Thomas Vale & Sons, Ltd. For sub-contractors see page 419.

GRAIN SILO

at STOWMARKET,
SUFFOLK

designed by chief architect's
division MOW

Below, the silo from the southwest, seen from Haughley railway station.



OFFICES

1. in WHERSTEAD ROAD, IPSWICH, SUFFOLK

for the British Transport Commission, British Railways

designed by H. H. POWELL, architect, Eastern Region; R. T. WALTERS, principal assistant architect; D. G. MIDDLETON, assistant architect quantity surveyor, J. M. REED

2. in GRIFFIN STREET, LONDON, S.E.1

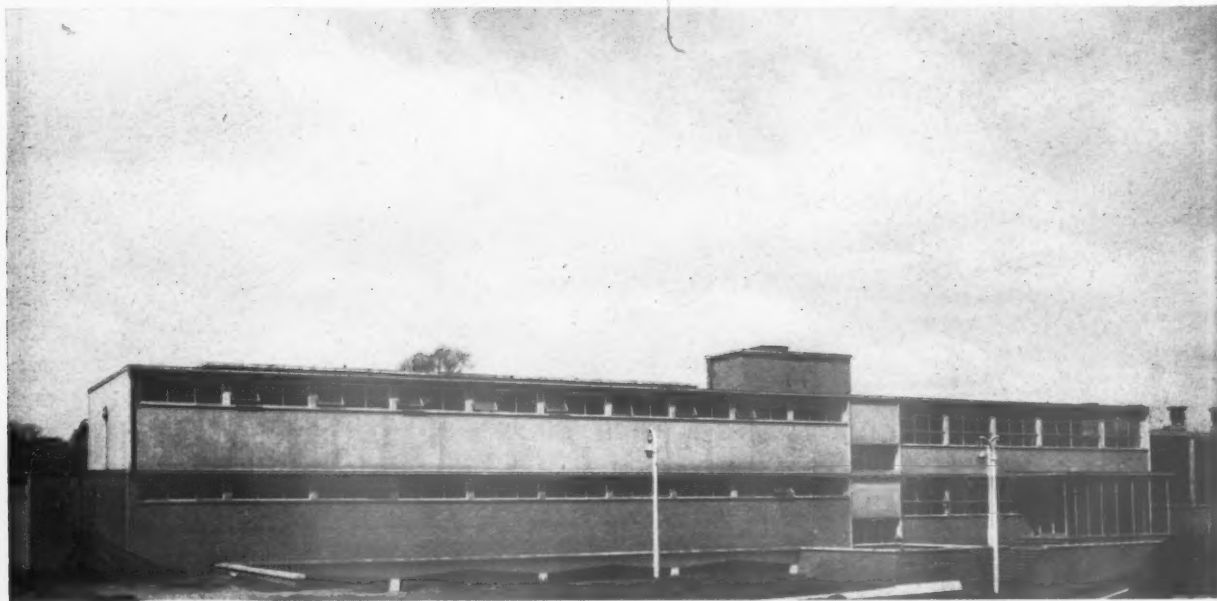
designed by MATTHEWS and SON; partner-in-charge, J. E. STUPPLES assistant-in-charge, R. E. BREARLEY; quantity surveyor, W. W. KERR



Part of the east facade.

The administrative building at the Motive Power Depot, Ipswich, contains offices, stores and welfare facilities as part of a larger scheme for the modernization of the depot, which deals principally with the provision of engines for the main line passenger and freight traffic between London, Norwich and Yarmouth and for local branch line traffic. The offices are situated between the loco yard and Wherstead Road, which is 15-ft. below rail level. Road access and parking was obtained by excavating the site to 10-ft. below rail level.

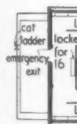
The Ipswich offices from the south-east.



Above, t



Section A



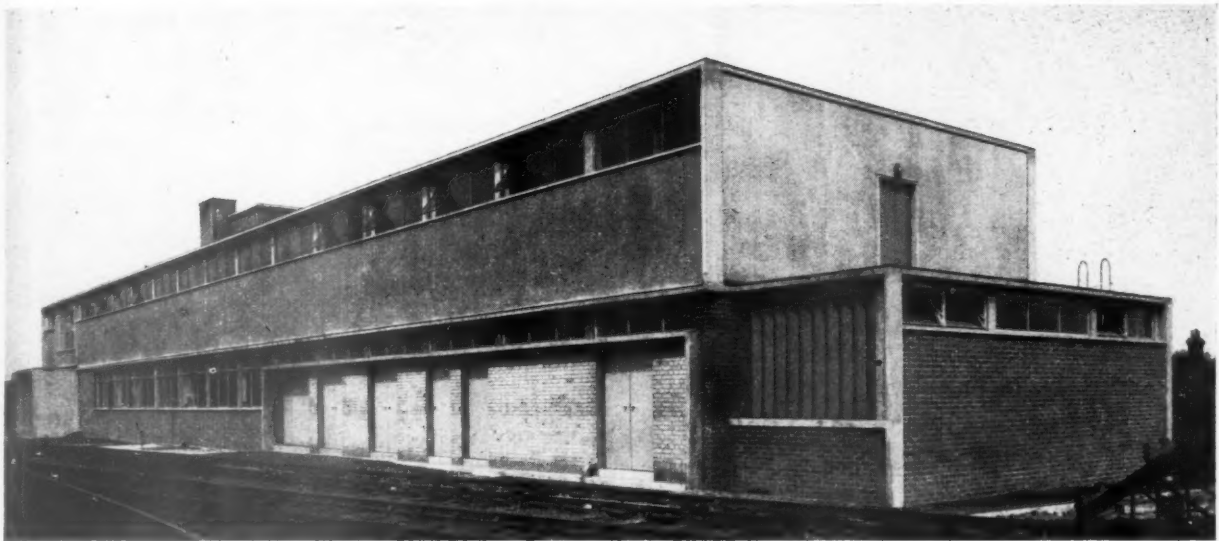
First floor



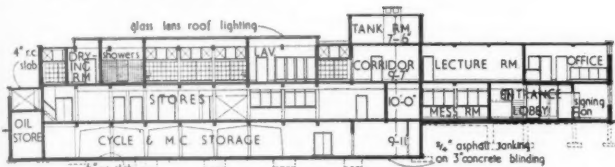
Upper gro



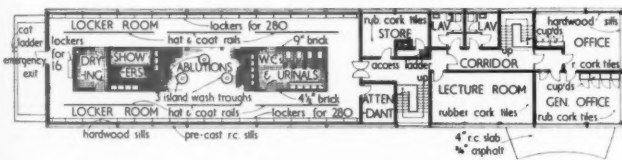
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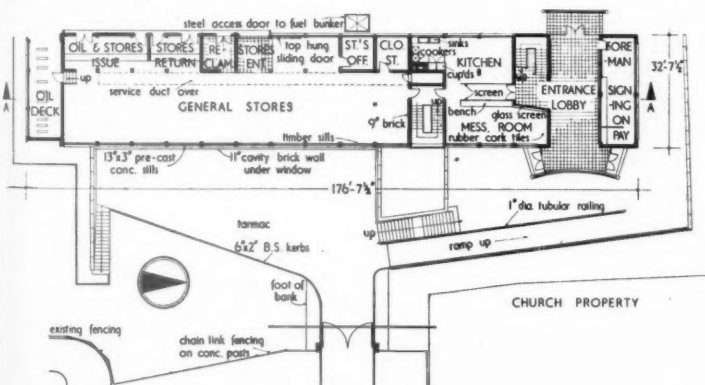
Above, the west and south facades.



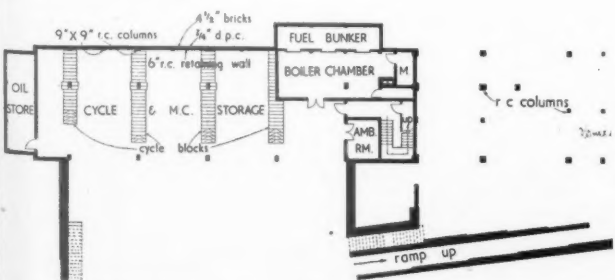
Section A-A



First floor plan



Upper ground floor plan



Lower ground floor plan [Scale: 1/8" = 1' 0"]

OFFICES

1. in IPSWICH, SUFFOLK
designed by H. H. POWELL

PLAN.—The building has to fulfil the following functions: (a) A signing-on lobby with display space for working notices, and pay office for depot staff; (b) messing, locker space, washing, lavatory, clothes drying and cycle storage for all grades of staff; (c) storage for engine tools, lamps, spare parts, oil and clothing; (d) office accommodation for the shed master, foreman and clerical staff; (e) first-aid room and lecture room; (f) the site required easy road and rail access and a view of the shed yard; (g) the building is in use for 24 hours a day, throughout the year, with a maximum of 269 staff on duty at any one time. The total staff numbers 576.

CONSTRUCTION.—The general construction consists of a reinforced-concrete frame with 11-in. brick panel infillings. As the site consists largely of made-up ground to a depth of 12 ft. the excavation for the lower ground floor enabled the column bases to be bedded on the subsoil. Floors are of r.c. and hollow clay tiles and the roof is a r.c. slab.

FINISHES.—The ground floor panel walls are faced with handmade Chesham brown bricks encasing the frame. The first floor has panels of 11-in. cavity brickwork, rendered silver grey. Internal finishes had to be chosen to stand up to hard wear and be easily cleaned, while providing a light and colourful contrast to the smoky atmosphere of the surroundings.

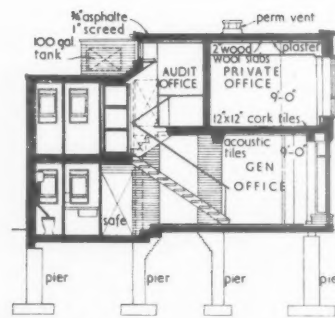
The cost was approximately £48,000. Price per ft. cube, 4s 11d. The general contractors were Geo. A. Kenney & Sons. Sub-contractors, page 419.



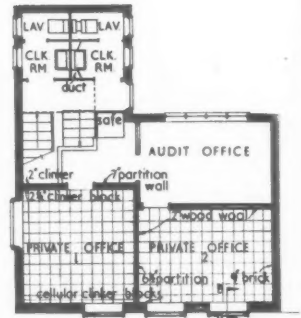
OFFICES

2. in GRIFFIN STREET, LONDON, S.E. 1
designed by MATTHEWS and SON

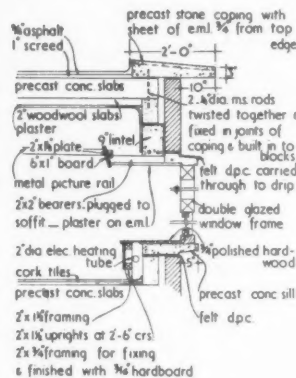
GENERAL.—The clients for this small office building, Waterloo Bonded Warehouses, Ltd., have a warehouse occupying the vaults under Waterloo Station. The new building replaces temporary office accommodation in one of the vaults. Noise from trains overhead, from horse-drawn vehicles on granite setts outside and the unloading of bottle crates, presented considerable difficulty and the private offices had to be made as silent as possible. The two private offices on the first floor are surrounded by a cavity wall on the north side and double-glazed windows and cavity partition walls. Floors are finished with cork tiles and ceilings with acoustic plaster on woodwool slabs. Acoustic plaster is also used on two of the walls in office 1. All double partitions have felt hanging loose from battens in the 2-in. cavity. The specially-designed and insulated door to office 1 was illustrated as a Working Detail in the JOURNAL for April 8, 1954. The general construction is of load-bearing brick walls, the foundations of brick piers penetrating through rubble-filled basements, a ground floor r.c. slab floating on rubble with free joints at edges to allow for settlement, and a roof of prestressed r.c. units. The general contractors were Holliday & Greenwood, Ltd. Sub-contractors, page 420.



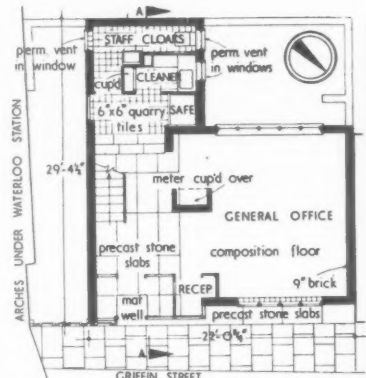
Section A-A



First floor plan



Detail section through window to private offices [Scale: $\frac{1}{4}$ " = 1' 0"]



Ground floor plan [Scale: $\frac{1}{16}$ " = 1' 0"]

Top left, staircase from the entrance hall.
Above left, windows in private office 1.
Below, the north facade seen from Griffin Street.



TECHNICAL SECTION



There is at present no textbook on joinery addressed specially to architects and written with the object of helping them to understand the workings of the industry and the principles of joinery design. It was therefore a cause for particular satisfaction that John Eastwick-Field and John Stillman were recently awarded the Alfred Bossom Research Fellowship to enable them to continue the investigation which they were making for the writing of such a book. Since the subject is of more than textbook importance, the Editors have arranged for some of the material to be presented to JOURNAL readers in a series of articles in advance of the publication of the book. The Editors hope that the articles will arouse comment which will be useful in the preparation of the MS. of the book. They will be published in the Technical Section and will be numbered for purposes of classification, 13. Materials: Timber. Robert Maguire, A.R.I.B.A., has assisted the authors throughout in the preparation of the material for the series.

THE DESIGN AND PRACTICE OF JOINERY

by John Eastwick-Field and John Stillman

1. THE TIMBER YARD

Tradition is still strong in the timber trade which seems to retain a nineteenth century atmosphere perhaps to a greater degree than other sections of the building industry. The trade is still linked closely with water transport; the logs are often floated down river, shipped port to port, and frequently even today brought by barge to the timber yard or joinery works. One notices that most large joinery works are sited beside rivers or canals for this reason.

The trade requires a high degree of personal experience and knowledge. No two logs are alike and their selection and grading before conversion call for great skill. The reputable im-

porters and merchants are in a position to give advice to their customers both as to the most suitable choice of timber for a particular purpose and also as to the selection of the actual pieces to be used. It is in their interest that the various timbers be used to their best advantage and their customers satisfied; and they are therefore always pleased when architects discuss their problems with them and visit the timber yards. At the very least they like their customers in ordering timber to state the way in which it is to be used.

The timber trade also has its highly competitive and often less scrupulous side. Dozens of varieties of hardwoods have been sold under the names of

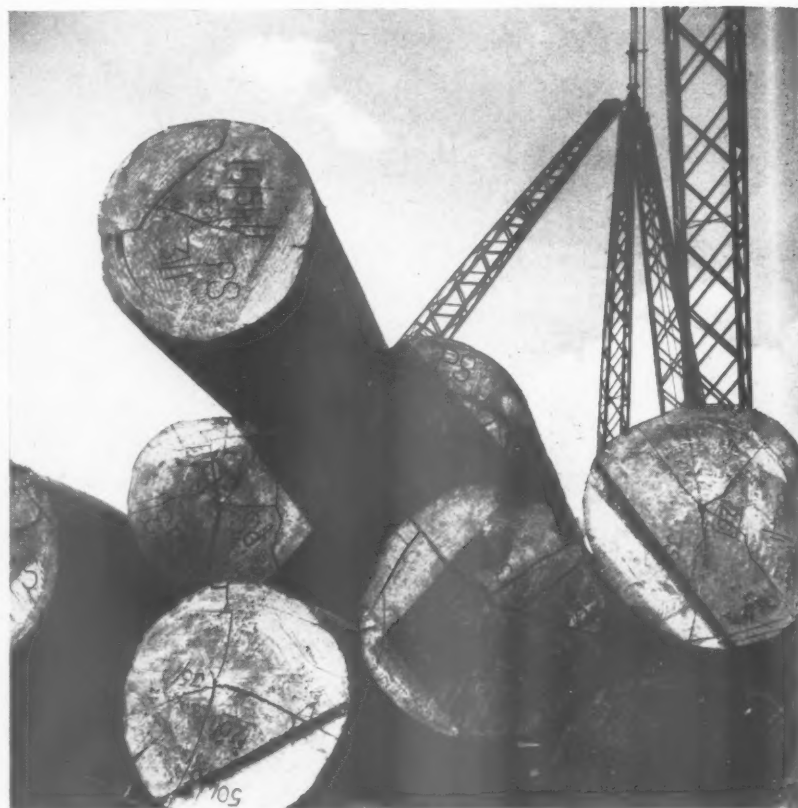
well-known woods such as mahogany, oak, teak, and walnut. The publication of British Standards 881 and 589, "Nomenclature of Commercial Timbers," has provided a solution to this problem, but even in compiling this standard some of the misleading names in general use had to be retained. For instance, woods known by the standard names Tasmanian oak, Rhodesian teak and African walnut have no botanical relationship with oak, teak or walnut. In spite of the British Standard, loose descriptions of timber are still accepted, and an order for "mahogany" might easily produce gaboony, which is not a mahogany at all, or sapele or West African mahogany which belong

to the mahogany family (*Meliaceae*) but which are a different genus from the true mahogany (genus: *swietenia*). It is indeed unlikely that one would get the latter, which is now available from Central America, unless this was asked for specifically.

Apart from the obvious fact that the wood supplied may not behave in the way expected, accurate description is essential where competitive tenders are being sought for joinery contracts which might run into several thousand pounds. On many small jobs it may matter little if the architect specifies "mahogany" and gets gaboon, or if he notes on the drawing merely "hardwood top" and gets what the joiner happens to have in his shop, but if the value of joinery to a building amounts to, say, £30,000, and this goes to tender, an accurate description of the species and grade of timber is essential. A way out of this difficulty is to include in the specification a prime cost sum for the cost of the timber (per cubic ft.), but, unless this is accurate, the accepted estimate does not give a true indication of the final cost of the work, and the advantages some joiners may have in purchasing timber are lost.

But putting aside the need to be able to specify accurately so as to obtain prices which give a fair comparison, there are other good reasons for an architect knowing more about timber than merely the superficial characteristics of a sample in the office, or of the prepared material in the joiner's shop. Some general knowledge of the sources of timbers commonly used, the systems of supply, methods of conversion, stacking, kilning and grading is most helpful as a background to all that one may have to do with joinery.

On the practical side such a knowledge will enable one to realize the limits in size of different kinds of timber, and to avoid designing sections which are wasteful to produce; it will also help to clarify the bewildering number of timbers and to gain a working knowledge of those which are most useful. The ability to talk the same language as merchants and joiners increases the mutual respect and confidence between the various parties and leads to greater co-operation when a particular job of work is carried out. Furthermore the sight of wood in the log or in planks at a timber yard im-



West African hardwoods stored "in the log" before conversion. The ends of the logs have been painted, and marked by the various concerns which have handled them before their arrival at the consumer's yard. These logs show large shakes, or cracks, which make economical conversion a difficult and highly skilled job.

presses itself on the memory more vividly than a small sample; and a discussion about the characteristics of any particular species of a timber is likely to be remembered more than reference to a book.

This knowledge increases one's feeling for the particular values of the material from which one's designs are to be realized. Timbers vary greatly and their different characters should be recognized and expressed by the designs in the same way that the technique of the stone mason is varied according to the hardness and texture of the stone or marble being cut. By talking with people in the trade one quickly learns that many species of timber have definite "personalities." By tradition certain woods have become associated in the craftsman's mind with particular uses, and fashions for woods have like other things changed with different periods of history. English oak was for centuries regarded as the best joinery wood, and was once used almost exclu-

sively for the best work; a tradition which remains in ecclesiastical work. It is still usually wax polished and the joints are often pinned in a way which derived from early techniques. By contrast, Cuban mahogany, often known as Spanish mahogany, was, until the forests were exhausted at about the time of the '14-'18 war, the joinery wood par excellence for the highly polished panelling and sophisticated work so admired in the 19th Century.

These traditional associations are more often than not quite logical. English oak, for instance, is a strong tough virile wood subject to slight movements and splitting. It looks well treated simply, but has lost much of its reputation by the ubiquitous use of oak in panelling, veneered plywood and cellulosced light oak furniture and fittings, mainly of course in Japanese and other foreign varieties which, being more regular, look anaemic beside true English oak. Another famous wood, teak, won its reputation by being remarkably stable

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in external work such as ship decks, for which it is ideal. It is, however, rather open-grained and inclined to splinter. It is also difficult to work and quickly blunts tools. It follows that it is best used in simple sections and not in highly moulded work.

For finely moulded work, panelling or cabinet making, timbers of medium strength with straight close grain are wanted and mahogany satisfies these requirements. It has a good colour and takes a high polish. Woods with irregular grain are also used for this type of work where a more interesting appearance is required and their beauty of figure justifies the additional labour. Walnut, yew and cherry are common examples but there are in this category many beautiful and rarely used woods such as purpleheart, Indian rosewood, zebrano and thuya.

Although nowadays the expression "high class work" when used in the trade seems to imply the use of hardwood, there was a time when fine joinery, in windows and doors and panelling and even in carving was commonly done in selected softwoods such as Archangel 1st (B.S. redwood) and Canadian white pine (B.S. yellow pine) and was usually painted. Such joinery is found in Georgian houses throughout the country, and was made possible because of the existence of very large trees in virgin forests from which clear straight grained wood was produced: a situation which no longer exists.

TIMBER SUPPLIES

The few species of common softwoods grow in relatively compact areas in Russia, Scandinavia and North America, and in answer to the demands of western civilisation the sources have been heavily depleted. Although there are still plentiful supplies, particularly of the lesser used species such as western hemlock and red pine (both from N. America), there is nevertheless a tendency to use more hardwood from tropical forests, many of which have hitherto been unexploited. This tendency has been accentuated by the economic conditions caused by two world wars; latterly by the need to avoid purchasing Canadian softwoods with dollars. In 1938 the total softwood imported was nearly 2,000,000 standards and hardwood 33,000,000 cu. ft., and in 1951 there was 1,700,000 standards of softwood and nearly 60,000,000 cu. ft. of hardwood.

SOFTWOODS

The terms deal, pine and fir by which softwoods are commonly known, are most misleading since they can refer to a number of species, and are used differently in different countries. For instance "Pinus Sylvestris," which is the most commonly used softwood in this country and is now known by the B.S. name of "redwood," is called amongst 13 other names, red deal, yellow deal, Archangel fir, Swedish pine and Scots pine.

Although there are only about six commonly used softwoods, their differences, though sometimes important, are not so easily recognized as in hard-

woods, and the names are so confusing that it is difficult to distinguish one from the other. It is doubtful whether many architects or builders could always be sure what they were using.

The most satisfactory solution to this problem would be the general adoption of the British Standard names given in B.S. 881 and 589, "The Nomenclature of Commercial Timbers," a useful extract from which is given in "Specification." B.S. 1186, "Quality of Timber and Workmanship in Joinery, Pt. 1: quality of timber," gives softwoods suitable for joinery. See table below.

Swedish	Redwood or whitewood	Better shipments of unsorted
Finnish	Redwood or whitewood	Better shipments of unsorted
Polish	Redwood or whitewood	Best shipments of unsorted
Norwegian	Whitewood	Best shipments of unsorted planed boards
Russian	Redwood or whitewood	Unsorted White Sea or unsorted Kara Sea
North America	Douglas fir	Cleats and door stock
	Western hemlock	Select merchantable
	Sitka (silver spruce)	Cleats and door stock
	Western white pine	Select merchantable
South America	Western red cedar	Cleats and select merchantable
	Parana pine	1st, 2nd, 3rd and log run (cleats in, culls out)
		Prime (80% first, 20% second export grade)

Table of woods suitable for joinery. For definition of terms, see page 414.



Softwood, converted in the country of origin, "in stick" in an English timber yard. The shipping marks can be clearly seen.

It is obvious from this list that the bulk of the softwood comes from countries in the northern latitudes and mostly from countries where the ports are icebound in winter months. For this reason the trade, unlike that of hardwoods, is seasonal. The logs are converted in the country of origin: that is to say, they are sawn into square sections, the ends of which are stencilled with the shippers' or importers' marks, and they are sold through agents to importing firms in this and other countries. The system of purchasing is similar for hardwoods and softwoods, but the hardwood trade is more specialized and intricate because of the great number of different kinds and grades of wood.

The marks which are a familiar sight on the ends of stacked softwood used at one time to be sufficiently limited in number to be of value to architects in selecting timber, and lists were given in reference books. One can still obtain a full list in "Shipping Marks on Timber," but the system has become too complex (there are some hundred marks) to be of much value to architects. All one can say today is that Norwegian timber is stencilled in blue, Swedish in red (lower qualities in blue), Russian timber is hammer branded, and Canadian timber is stencilled: "Astexo—Canada" or "Cantim," or with the mark of export or import concern. U.S. timber is stamped or stencilled with the marks of individual concerns.

Timber, like other materials, is sold in grades, and European softwoods are known as 1sts, 2nds, 3rds, etc.: the first five grades being used for joinery. Since the war 1sts have been unobtainable, and the usual classification is "unsorted," which is wood of all grades except 1st and those lower than 5ths. This does not, of course, preclude timber merchants regrading "unsorted" timber themselves, which they often do into "joinery" and "cassings": unless this is done the specification "unsorted" has little meaning. The grading of North American timbers is different, and there are two grades imported to this country for joinery, the best being known as "clears and door stock," and the other "select merchantable." "Clears and door stock" has been practically unobtainable, and "select merchantable" is equivalent to European "unsorted."

	1"	1½"	2"	2½"	3"	3½"	4"	4½"	5"	6"	7"	8"	9"
1"	☒	☒	☒										
1½"	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
2"			☒		☒		☒	☒	☒	☒	☒	☒	☒
2½"							☒	☒	☒	☒	☒	☒	☒
3"							☒	☒	☒	☒	☒	☒	☒
4"							☒			☒	☒	☒	☒

Table of softwood sizes, showing generally available sawn sections in softwood. The uncrossed sections are less common. For finished sizes subtract $\frac{3}{16}$ " from each dimension.

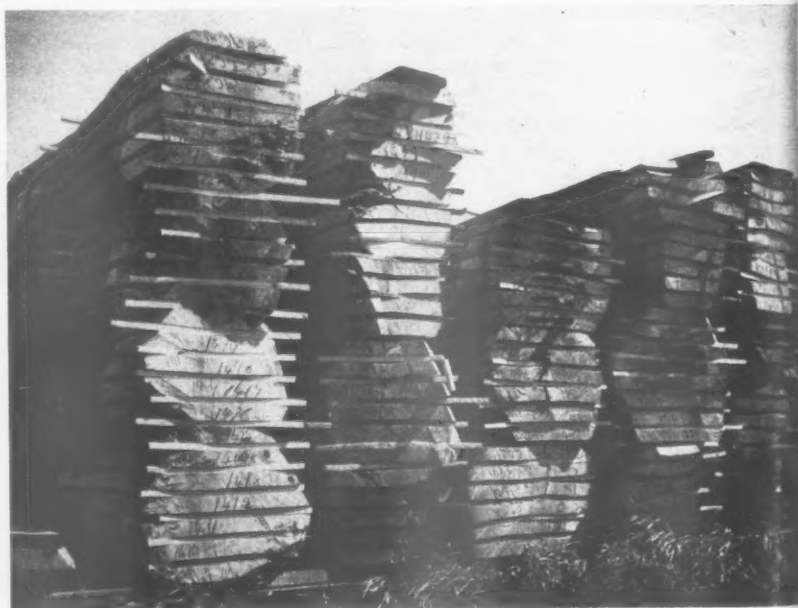
In principle, the best method of specifying is to rely on definite requirements of quality as incorporated in B.S. 1186 pt. 1, which requires that the timber shall meet certain standards of appearance, structure and freedom from defects irrespective of its species or grade.

SOFTWOOD SIZES

The timber is cut in the sawmills in the producing country either into baulks (i.e., squared up logs) or into a range of smaller sizes which from experience are found to meet the demand in this country. The different sizes have names such as battens, boards, deals, planks and scantlings, but these definitions which are different in meaning in this context from their usual

meaning, are rarely used, and the timber is generally referred to by its dimensions. Since it is obviously desirable to design to suit these common dimensions, making allowance for the preparation of the timber, it is useful to know what they are. The trade has not in fact been able to agree on standard sizes, nevertheless enquiries show that the sizes shown in the accompanying table are generally available.

Softwoods dry more quickly than hardwoods and they are converted before shipment into small sections. For these reasons the natural drying which takes place during the time from their conversion to their ultimate use is generally sufficient to reduce the moisture content to a figure of about 16 per cent. This is low enough for many



"Boules," (or logs cut through-and-through) of elm. This method of conversion is the most common, but produces considerable waste.

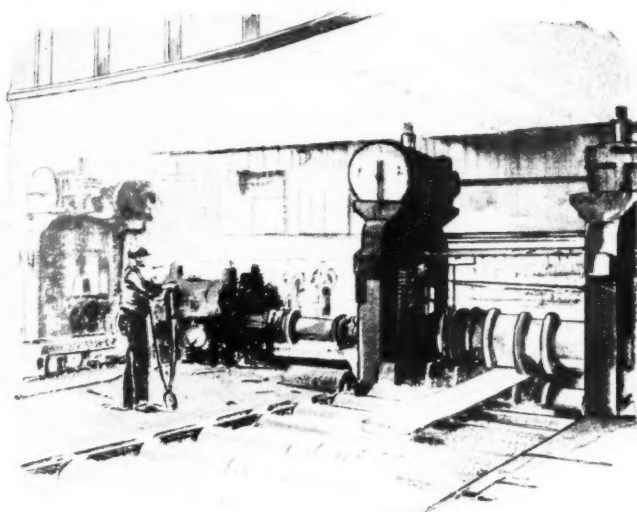
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BUILDING WITH STEELWORK



A building begins to take shape

At every successive pass through the rolling mill, the shape of the structural steel 'section' becomes more clearly defined.

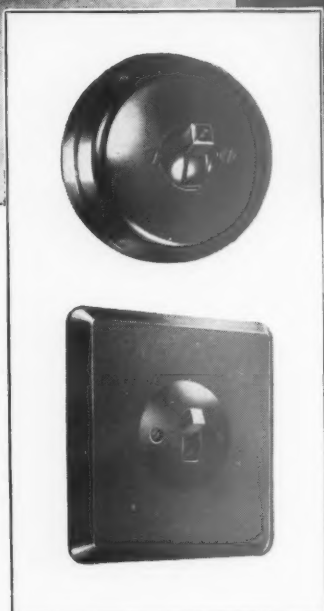
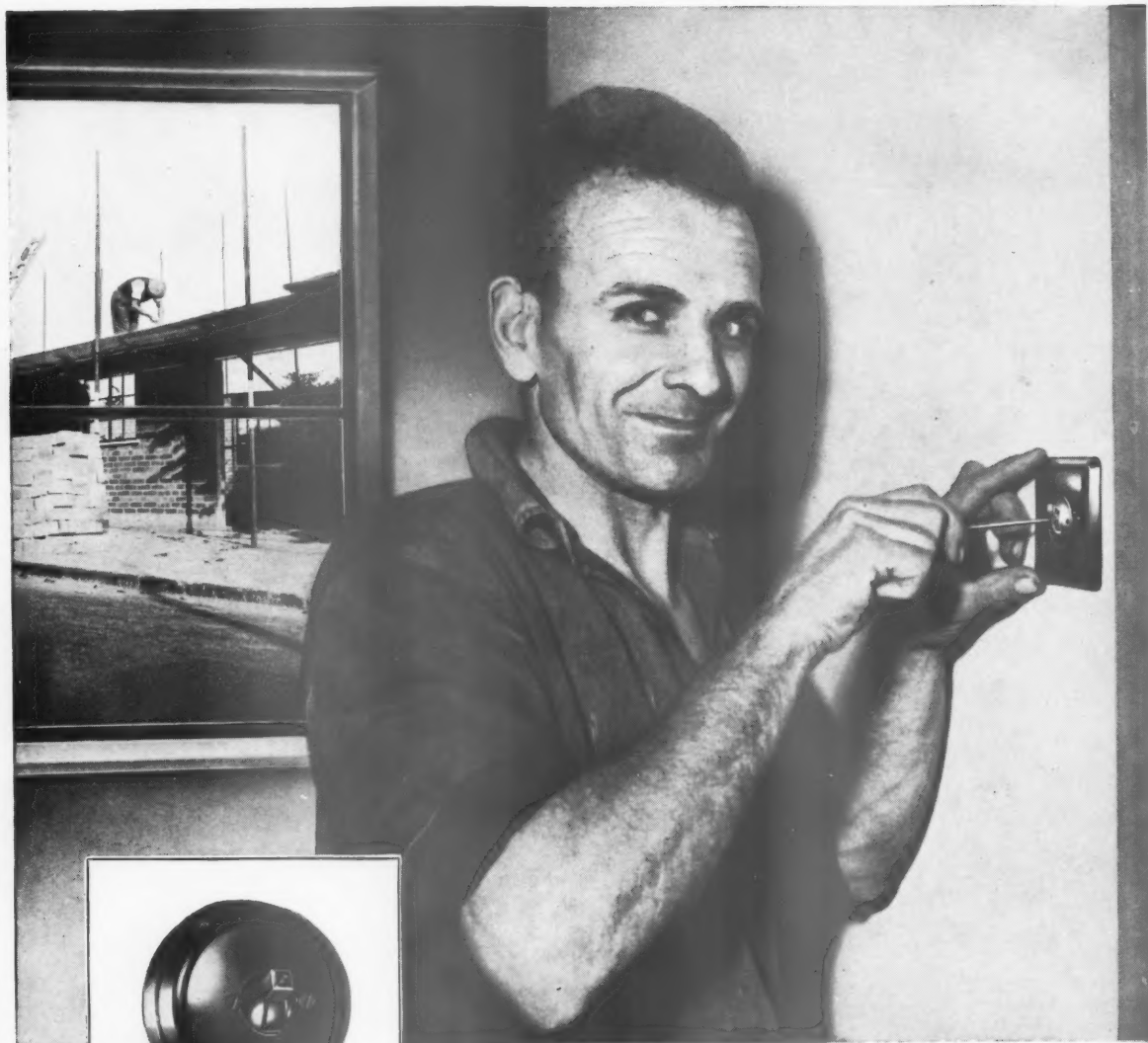
Already subjected to meticulous quality control before reaching the mill—it is then checked for accuracy of dimensions and for its mechanical strength. Later, when the rolled sections are fabricated into structural members, checking for dimensions, sequence of delivery and ease of erection are all equally strict. This accuracy is not confined to the physical side, for—since the properties of steelwork sections are absolutely consistent—calculations are simple, straightforward and rapid. Moreover, the design of connections is based upon long practical experience and is backed up by the knowledge that they are visible and foolproof and will be 'according to plan'. As a result, the steel frame goes up with Meccano-like simplicity, undeterred by bad weather, without dependence on other trades, without delays for setting or drying out, soon to be ready for whatever cladding its architect has chosen.

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of the uses to which softwoods are put, and even in those yards where there are also kilns, one is unlikely to find softwood being kilned, for it is usually taken direct from the stacks. For this reason it is important that it should be so piled as to allow air to circulate round each piece, and this is achieved by inserting small battens under each row, as can be seen in the illustrations. The timber is then said

to be "in stick." Hardwood will also be found "in stick," but this is usually only one stage in its process of seasoning and it will almost certainly be kilned before use in order to reduce its moisture content to the appropriate amount for the purpose to which it is likely to be put. Even if air drying could reduce the moisture content enough it would be unlikely to do so within a time that is short enough to

meet the demand. Softwoods take roughly 2 to 3 months for every 1 in. thickness for initial drying to 20 per cent. moisture content and hardwoods about one year.

The reduction of moisture content of timber is probably the most important factor determining its stability in use, and the subject will therefore be dealt with in greater detail in the next article of the series.

HARDWOODS

By contrast with softwood there are hundreds of commercial varieties of hardwood imported from many parts of the world, and whereas the softwood industries have been highly developed in the producing countries, this is not generally so in those countries from which the hardwoods are produced; and the commercial handling of the two sides of the trade are very different. In 1950 nearly 400 different species of hardwood were listed in Customs entries. At a yard an architect will see that softwood is stacked in "square sawn" sections, whereas the hardwoods may well still be in a pile of logs. He will learn that in their conversion and sale different systems are used.

The hardwood areas are nearly all in tropical and semi-tropical countries, many of which are less civilized than those parts of the world in which the softwoods are produced.

The result is that the timber is exported in several different forms, depending on local circumstances, shipping arrangements and trade practices. For instance, teak trees are bought by auction, three or four years before it is proposed to fell them, so that they may be killed by making a girdle through the bark in order that the logs shall become light enough to float down the rivers to the sawmills, where they are converted to planks for shipment. "Rhodesian teak," on the other hand, comes from a small tree and, being suitable for flooring, is almost exclusively imported as short strip or blocks.

The chain of handling is a complicated one. The timber is usually bought in the producing country and shipped by the importer, who in turn sells it to the merchant. But it must be noted that

importers and merchants may be combined, and occasionally consumers, i.e., large joinery works are also their own importers and merchants.

The importer or merchant dealing in hardwoods usually has saw mills, and carries out further conversion after receiving the timber. The yards and mills are mostly in London or Liverpool, close to the wharves, and the sight of large piles of logs and of sawn timber in stick will be familiar to most architects. Whereas softwood is mostly used up as soon as it is imported, hardwood is by tradition delivered by the importer to his customers in a "seasoned" condition, and is therefore stored by him for a number of years. Formerly the timber was air dried for long periods: but nowadays, when lower moisture contents are often required, it means that many of the yards are equipped with their own kilns.

When the timber leaves the country of origin, it is usually in one of three forms. It may be in the solid log (round or "squared up"), or in square-edged stock, or in boules (logs cut through-and-through and tied with steel bands). Many importers and merchants prefer square-edged timber because of reduced handling and con-

version costs, and savings in shipping space and waste. On the other hand, uncut logs have the great advantage that they can be converted to special requirements.

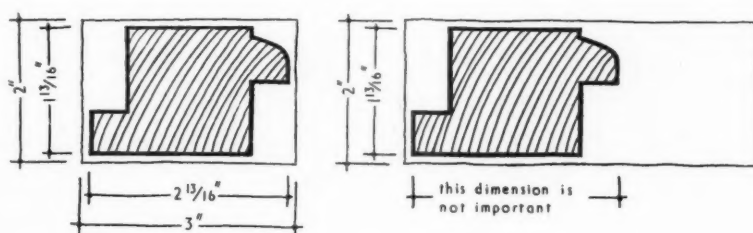
Grading is a more specialized process with hardwoods than with softwoods. Softwoods are naturally straight, and by comparison with the often gnarled and twisted boles of the bushy topped hardwoods, are relatively easy to grade. Hardwoods are graded according to quality first in the country of origin, and for commercial purposes are sorted into:—

1. Prime quality or F.A.S. ("firsts and seconds").
2. Selects.
3. No. 1.
4. No. 2, etc.

Qualities below No. 1 are however not very satisfactory for joinery, and architects' specifications should make it clear that lower grades are not acceptable. When the timber arrives at the importers' yards it is sorted again—especially if it is required for decorative purposes when matters of appearance are of importance.

The criteria by which the timber is then judged are:

1. Straight, even grain (or special figure).



Diagrams showing the influence of timber yard practice on economy of dimensioning. On the left is a typical softwood section requiring a 3-in. by 2-in. sawn scantling. For softwood both dimensions are critical for economic design. On the right is a similar section applied to hardwood. Here, since hardwood is marketed in boards, the long dimension is less critical. It will be noticed that $\frac{3}{16}$ in. is allowed on each face for finishing.

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2. Consistent colour.
3. Quantity and condition of sapwood.
4. Number and extent of heart shakes.
5. Freedom from decay, insect attack and fungi.

Heart shakes may be very large and extend through the length of the log. Of less concern are end shakes, which open up in the ends of logs and are due to the extreme ends drying out and shrinking. The ends of some timber are painted in order to minimize this. Sapwood may be much softer and lighter in colour than the rest of the log, and may also be attacked by insects or fungi, to which it is particularly liable.

It is at this stage that the architects may wish to take a personal interest in the choice of the timber, and when it is useful to be able to recognize good from bad material, and to know how the wood which he inspects in the yard is likely to appear when wrought and finished.

Although all the textbooks show the different ways of converting timber, the majority of logs are initially cut "through and through," and the material is supplied to the user in planks of a number of recognized thicknesses.

These are 1 in., 1½ in., 1½ in., 2 in., 2½ in., 3 in. and occasionally 4 in. unless the logs are specially converted. The planks are not, however, of standard widths as in softwood, and in purchasing a parcel of planks of a minimum width of, say, 9 in., some of them will exceed this figure by varying amounts.

From the architects' point of view the significance of this is that small sections are cut from relatively wide planks and it is only necessary in avoiding waste to consider the standard thicknesses. In softwoods by contrast, both dimensions have to be taken account of.

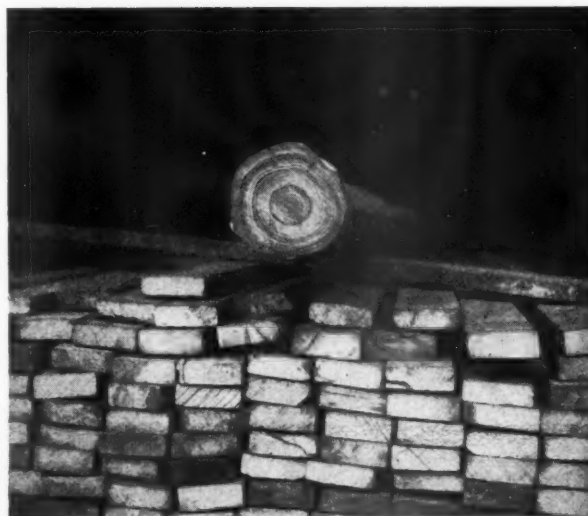
Because of the great variety of hardwood trees, the available sizes vary enormously according to the species; whilst the average length of plank is 12 ft., widths vary from 9 in. to 18 in., some woods can be had in much larger planks. Mahogany, for instance, can reach as much as 25 ft. × 4 ft. wide, and at the other extreme kingwood comes from trees whose diameter does not usually exceed 9 in. It is obviously worth while ascertaining in what sizes timber is available before making a choice from a small sample.



Square edged boards of coigue. The boards are of varying widths, from 4 to 12 inches, but the nominal thickness should be constant. This is an unusually bad parcel of timber, showing shakes, warp, and twist, and emphasizes the importance of careful specification.



The sizes of timber available varies widely with different species. Left, boards of mahogany (swietenia), some of them 4 ft. 6 in. wide, and in lengths up to 25 ft. Below left, kingwood, showing a typical log, only 9 in. in diameter. This is an expensive and highly decorative timber.





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METHODS OF SELLING AND PRICES

The obtaining of softwood for a building is nearly always left entirely to the contractor, but it frequently happens with hardwoods that the architect wants to select the type and grade of hardwood, and that he will consult and obtain quotations from importers or merchants, receiving samples and possibly visiting their yards. It need hardly be said that the architect will be unlikely to be able to judge the comparative merits of different logs or planks without the help of a trustworthy merchant, but, as we have said before, such a visit will increase his knowledge of the different species and their sizes, and his interest will encourage the merchant to supply appropriate material of good quality.

Softwoods are sold in bulk unwrought by a measurement known as the "Petrograd Standard." This is 165 cu. ft., and typical prices in 1954 per standard are: 2nds (the best available) £140 a standard; unsorted (selected for joinery) £115 a standard; unsorted (selected for carcassing) £100 a standard; and 5ths £90 a standard. When sold in smaller quantities, it is bought by the foot run of a particular section and is often priced at so much per cu. ft. Unsorted for joinery would on this basis be about 14s. per cu. ft.

Hardwood is nearly always sold per cu. ft. and some representative prices for common sizes are: teak, Honduras mahogany 50s. to 65s.; Japanese oak 35s. to 60s.; Iroko 30s. to 45s.; West African mahogany, English oak 25s. to 45s.; Keruing, Yugoslav beech 20s. to 25s.; English beech 15s. to 20s.

These prices are variable and depend not only on the quality but also on the sizes of boards required.

It might be mentioned that hardwood for flooring is an exception to the rule, and blocks and strips are sold per yard super of material, which is commonly of 1 in. nominal thickness.

Reverting to softwood, much official encouragement has been given to the use of timber impregnated with preservative. Wolman salts and creosote are the most commonly used preservatives and impregnation is carried out by a limited number of firms who then distribute the timber to stockists, from whom the contractor may order what he requires. Treated softwoods cost about £10 extra per standard.

We have not mentioned the plywood or the veneer industries which are outside the scope of this article.

REFERENCE

The names of softwoods being so confusing, and the varieties of hardwoods being so varied, it is essential to have some references to which to turn in day-to-day practice. We have found the following useful: Nomenclature of Commercial Timbers BS 88 and 589, 7s. 6d.; Quality of Timber and Workmanship in Joinery BS 1186, Pt. 1, 4s.; B.R.S. Digest No. 59. The Use of Hardwoods in Building, H.M.S.O., 3d.; Wood Specimens, 100 reproductions in colour, Tothill Press, 42s.; Specification, Architectural Press, 30s.; Timbers of West Africa, T.D.A. Red Booklets.

The F.P.R.L., which is part of the D.S.I.R. issue information and undertake to answer enquiries. The T.D.A. undertake a similar service on behalf of the Timber Trade and are always willing to help. They also have available a set of 50 timber samples which are most useful to have in the office. They cost £2 10s. the set or 1s. each.

THE INDUSTRY

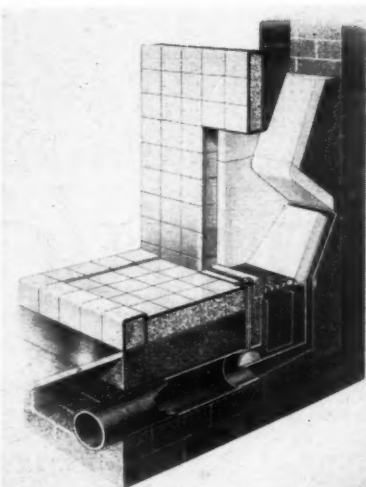
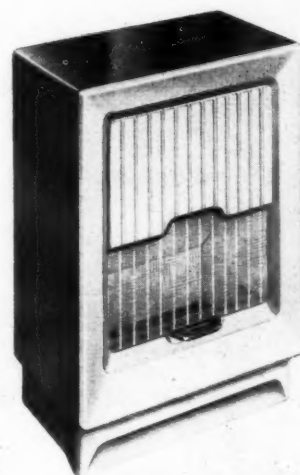
From the Industry this week Brian Grant reports on new solid fuel appliances, an electric cooker, and office furniture made from chipboard.

NEW SOLID FUEL APPLIANCES

The Grange-Camelon Iron Co. of Falkirk, members of the Federated Foundries group,

have just announced six new solid fuel appliances. The first is the Sofono-Sunray, a free standing or inset model slow combustion stove having a fire door screen of steel gauze which allows the fire to be seen but which does not smoke up. Prices are £14 12s. and £17 15s., the inset model being the cheaper. Either unit can be supplied with a boiler. There are also two other slow combustion designs, the first being made in two sizes with outputs of 8,000 and 15,000 B.Th.U. per hour, the other in three sizes with outputs from 25,000 to 55,000 B.Th.U. and varying in price from £20 5s. 6d. to £23 17s. 6d.

A further design is the Swift stand-in fire, to be used with existing tiled fireplaces having a 16 by 22 or 24-inch fireplace opening and an ordinary fire back. This model has a restricted throat controlled by a damper to prevent too much ventilation and



New products of the Federated Foundries group. Top: the Sofono-Sunray openable closed stove. Centre: Sofono slow-combustion stove. Above: the Swift fire.

FINE BUILDINGS

Everywhere these days you can see really fine buildings—attractively designed and really well-built. Such a building is illustrated below—The new Boarding House, Nautical College, Pangbourne.

Architect: John Grey & Partners, F./I.R.I.B.A., London, W.C.2.

Builders: Walden & Son (Henley) Ltd., Henley-on-Thames.

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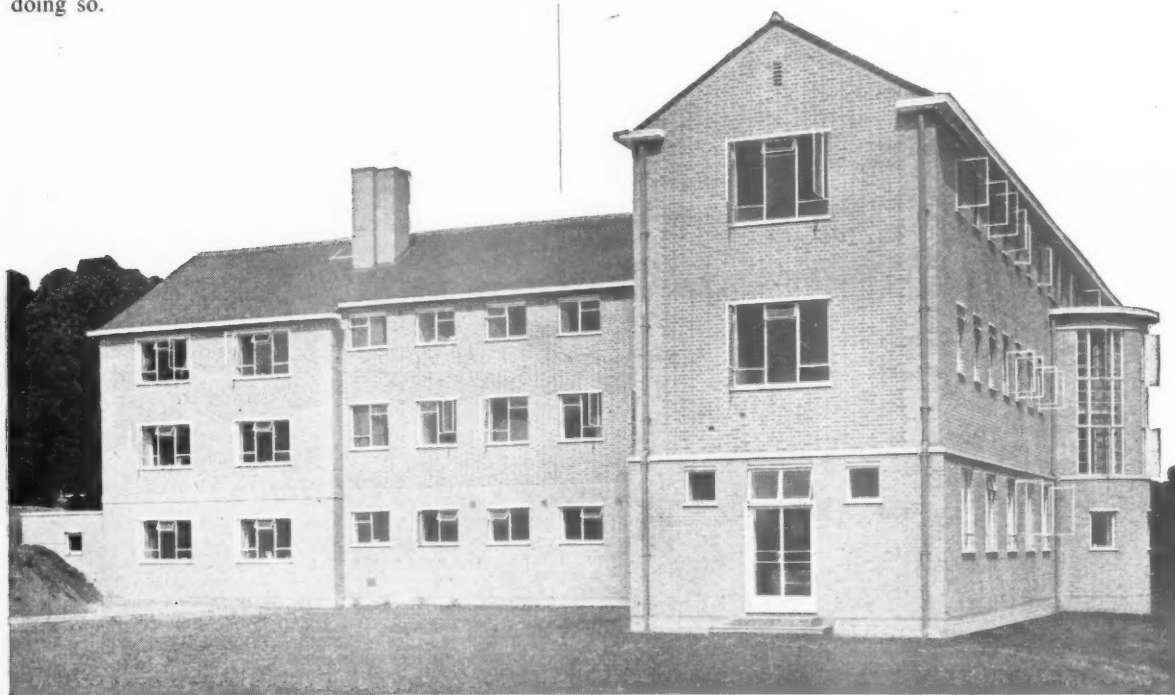
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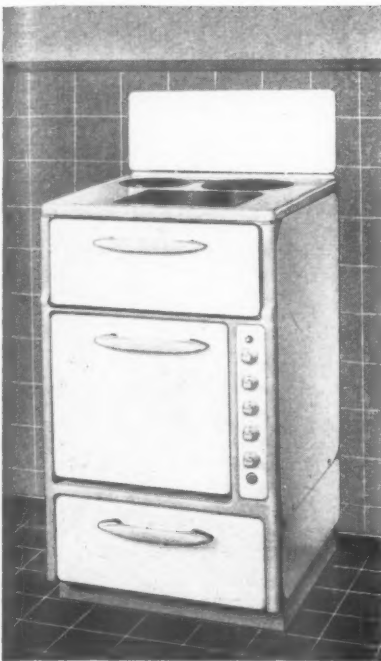
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The B.N.E. model C90 cooker. All doors are bottom hinged, and the cooker has an exceptionally short heating-up period.

heat loss up the chimney, and there is an expanded metal guard which clips to the front of the fire. Price is £7 5s. The Ensign combination grate has been redesigned and a 14-inch all-night burning fire with a drop down front for greater radiation. Basic price is £22 11s. with various extras for different types of boiler. Finally, there is the

Summit fire in which the combustion air is drawn into the base of the hearth through a pipe under the floor. Part of this air is brought up behind the fire, where it is heated, and is emitted through a slot halfway up the firebrick back, where it ignites the unburnt gases which would otherwise go up the chimney in smoke, and thus provides a further source of heat. Installation offers no particular difficulties and there is an ash pan large enough to cope with up to seven days burning. Price is £8 10s.

The Federated Foundries' London showrooms are at 4, Stratford Place, London, W.1.

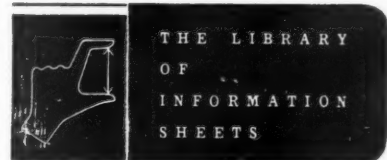
ELECTRIC COOKERS

The illustration on the left shows the new B.N.E. model C 90 electric cooker, shown for the first time at the Scottish Industries Exhibition. It has been developed from the existing C 49 model, and considering that it is more or less in the luxury class, the price of £48 cannot be considered high. The oven, which has a loading of 2½ kW, has an exceptionally short pre-heating time, and will reach a temperature of 400 degrees F in only 12 minutes from switching on. All doors are bottom hinged and counterbalanced, and the warming cupboard at the bottom has a 500 watt heating element. Finish is in two shades of cream vitreous enamel and dimensions are to B.S. (21 by 21 inches by 36 inches high, not including the 9 in. splash back). (British National Electrics Ltd., Newarthill, Motherwell, Scotland).

FURNITURE FROM CHIPBOARD

In the spring of last year a note was published on the production of Bartrev board, a material which is made by a continuous process and which can be produced in any length, subject only to transport considerations. Bartrev can be used not only for shop-fitting but for furniture construction as well, the mottled effect of the untreated board being quite pleasant in itself, though it can

be painted or faced with plastics or metal if required. For office furniture the material is used for desks and shelving, and the photograph below, left, shows a filing cabinet in which the casing is sprayed with a fire retardant liquid and the drawer front veneered with black Formica. The design by Gaby Schreiber & Associates. (The Vere Engineering Co., Ltd., Marks Tey, Essex).



4.L4 REFERENCE BACK

Readers are asked to note the following amendment.

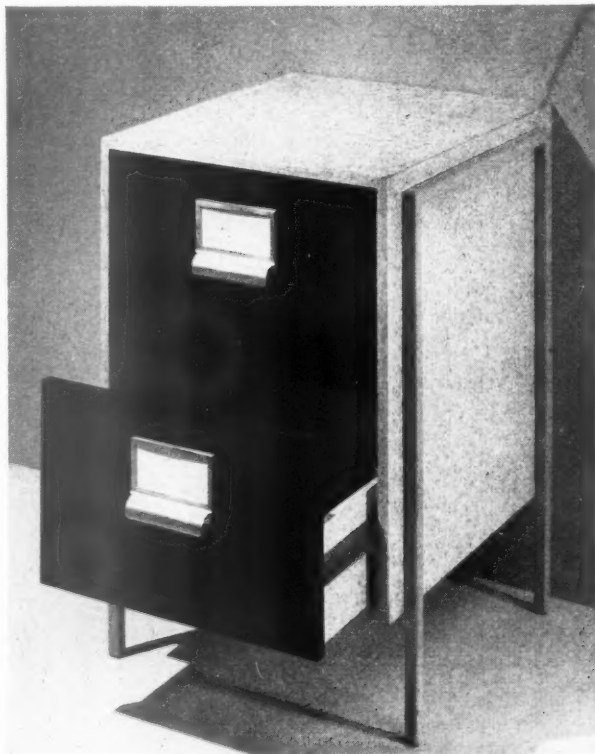
Reverse of Sheet, under heading "Bibliography," the publishers of "Theatres and Auditoriums," by Meyer and Cole, was incorrectly given as Reinhardt, instead of Reinhold.

Buildings Illustrated

Grain Silo, Haughley, near Stowmarket, Suffolk. (Pages 403-407.) For the Ministry of Food. Architects: Chief Architects' Division, MOW, Senior Architect, A. Swift, A.R.I.B.A. Engineer: G. C. Kim, A.M.I.E.E. Clerk of Works: R. A. Fullerton. Agent: J. Blunt. General Contractors: Thomas Vale & Sons Ltd. Sub-contractors: supply and fixing of metal windows, doors, etc., Aygee Ltd.; installation, electric lighting, power, lighting protection, internal telephones, The Eastern Electricity Board; asphalt tanking, asphalt paving and roofing, The Limmer & Trinidad Lake Asphalt Co. Ltd.; heating, hot water services for welfare block, Newman & Watson; grain handling and drying plant, Aldersley Engineers Ltd.; steam boiler plant supplied by Bobey & Co. Ltd.; installation thermal insulation of auto thermal feed system, supplied by Cape Asbestos Co. Ltd.; self-control elect. sump pump, Coldwell Engineering Co. Ltd.; electricity supply, Eastern Electricity Board; calibrating and testing of temperature indicating equipment supplied and fixed by Elliott Bros. (London) Ltd.; three elect. passenger lifts, Evans Lifts Ltd.; iron removal plant, Feedwater Specialists Co.; well glass fittings, Revo Electric Co. Ltd.; borehole submersible pumps supplied by Sumo Pumps Ltd.; motor driver re-agent feeder, Wallace Terring Ltd.; power factor capacitors supplied by Wego Condenser Co. Ltd.

Administration Building, British Railways Motive Power Depot, Wherstead Road, Ipswich, Suffolk, for the British Transport Commission, British Railways, Eastern Region. (Pages 408-409.) Architect: H. H. Powell, B.A.R.C., A.R.I.B.A. (Architect, Eastern Region); R. T. Walters, A.R.I.B.A., A.M.I.S.T.R.U.C.T.E. (Principal Assistant Architect); D. G. Middleton, A.R.I.B.A. (Assistant-in-Charge). Quantity Surveyors: J. M. Reed, F.F.S. General Contractor: George A. Kenney & Sons; asphalt (tanking and roofing), Prater Asphalt Co.; concrete paving slabs, Saunders (Ipswich) Ltd.; bricks, Henry J. Greenham (1929) Ltd.; patent glazing, J. A. King & Co. Ltd.; patent flooring, Rowan & Boden Ltd. (Accotile), Stelcon Industrial Floors Ltd. (cycle blocks and anchor plates), Standard Pavements Co. Ltd. (terrazzo), William Lockhart Ltd. (Cerbos tiles); central heating, H. Warner

Filing cabinet made by the Vere Engineering Co. and designed by Gaby Schreiber & Associates. The cabinet is made from Bartrev board sprayed with a fire-retardant liquid, and the drawer fronts are veneered with black Formica.



Readers requiring up-to-date information on building products and services may complete and post this form to the Architects' Journal 9, 11 and 13, Queen Anne's Gate, S.W.1

ENQUIRY FORM

I am interested in the following advertisements appearing in this issue of "The Architects' Journal." (BLOCK LETTERS, and list in alphabetical order of manufacturers names please.)

Please ask manufacturers to send further particulars to:—

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ADDRESS

30.9.54

& Son Ltd.; gas fixtures, James Stott & Co. (water heater), Radiation Group Sales Ltd. (cooker); boilers "Crane & Beeston" boilers fitted by H. Warner & Son Ltd.; electric wiring, fixtures and electric heating, British Railways Eastern Region Mechanical & Electrical Engineer; ventilation, Vent Axia Ltd.; sanitary fittings, Adamsez Ltd.; door furniture, James Gibbons Ltd.; metal casements, Crittall Manufacturing Co. Ltd.; telephones, British Railways Eastern Region Signal & Telecommunications Engineer; folding gates, Bruce Gentles Ltd. (entrance gates), Garaw Howard Ltd. (oil store gates), Haywards Ltd. (fuel store flaps); metalwork, Flexo Plywood Industries Ltd. (shower cubicles); joinery, General Contractor; furniture, Pel Ltd.; cloakroom fittings, James Gibbons Ltd. and G. A. Harvey & Co. (London) Ltd. (lockers); clocks, Smiths Ltd.; signs, Yannedis & Co. Ltd. (nameplate), Lettering Centre (plastic letters).

Offices at 21/22 Griffin Street, York Road, London, S.E.1, for Waterloo Bonded Warehouses Ltd. (Page 410) designed by Matthews & Son, Partner-in-charge: J. E. Stupples A.R.I.B.A., Assistant-in-charge: R. E. Brearley, A.R.I.C.S. Quantity Surveyor: W. W. Kerr, F.F.S. (ENG.) (QUANT.). General Contractor: Holliday & Greenwood Ltd., General Foreman: W. Collett. Sub-Contractors: sanitary fittings, Baldwins (Birmingham) Ltd.; cooker, Belling & Co. Ltd.; door furniture, A. J. Binns Ltd.; water heater, British National Electric Ltd.; in situ concrete, British Reinforced Concrete Eng. Co. Ltd.; safe removal Chatwood Safe & Engineering Co. Ltd.; fittings, Cleveland Art Metal Works; roof and ground beams, Concrete Ltd.; electrical installation, Electrical Installations Ltd.; artificial stone, Ferro-Concrete (Shepperton) Ltd.; bricks, Henry J. Greenam (1929) Ltd.; unit heaters, Harris Engineering Co. Ltd.; furnishings, Heal's Contracts Ltd.; quarry tiles, A. H. Herbert & Co. Ltd.; "Carda" windows, Holcon Ltd.;

heat resisting paint, International Paints, Ltd.; acoustic tiling, J. R. A. Robertson; glazing, James Clark & Eaton Ltd.; composition flooring, The Liotex Asbestos Flooring Co. Ltd.; lighting fittings, Merchant Adventurers of London Ltd.; cork and rubber tiles, New Floor Installations Ltd.; metal grill, Nicholls & Clarke Ltd.; external paving, "Noelite" Ltd.; air conditioning, Painter Bros.; asphalt, Permantite Ltd.; thermo plastic tiles, Pilkington's Asphalte Co. Ltd.; paints and emulsions, Rains & Porter Ltd.; light fittings, Troughton & Young (Lighting) Ltd.; heating, Thermovent Heating (E. K. Cole Ltd.); leather door panels, Woolnough Ltd.; ironmongery, Yannedis & Co. Ltd.

Announcements

Frederick MacManus, F.R.I.B.A., has taken into associate partnership Brian Smith, A.R.I.B.A. The practice will be continued as previously under the style of Edward Armstrong and Frederick MacManus, Chartered Architects, from 28, Gloucester Place, Portman Square, W.1. (Tel.: Wel. 2273-4.)

Sir W. A. Rose & Co. Ltd., have appointed R. T. Charlesworth as their representative for Devon and Somerset.

Philip R. Middleton has commenced practice at Norwich Union House, 17-19, Albert Road, Middlesbrough, Yorkshire, and would be pleased to receive trade catalogues.

Correction

We apologize for incorrect credits to the following illustrations in the special issue devoted to ironmongery (September 9, 1954). 54 (p. 317) should be attributed to Basil Spence and Partners. 105 (p. 325) should be attributed to Henry Hope & Son, not to the Crittall Manufacturing Co.

GLASCRETE

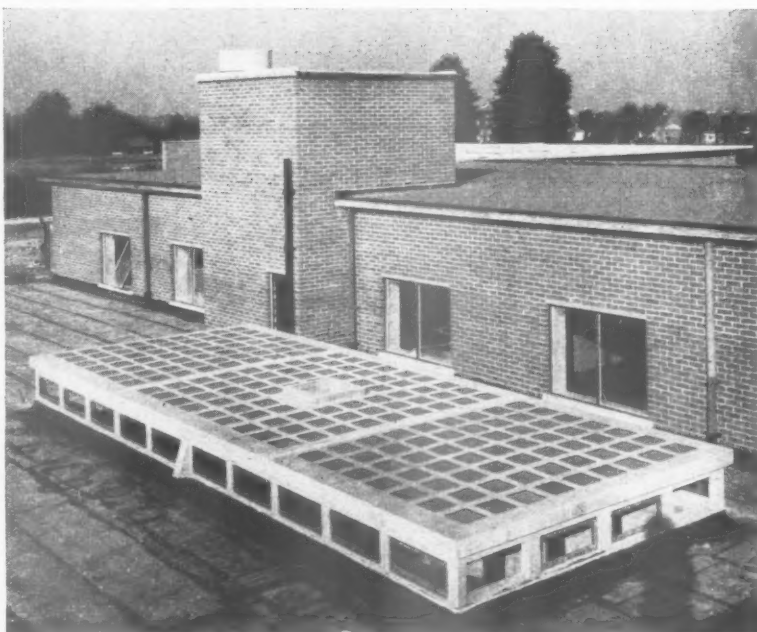
Reinforced Concrete and Glass

LANTERN LIGHT

over kitchens at the
Langley Primary School
for the Buckinghamshire
County Council.

Associated Architects:

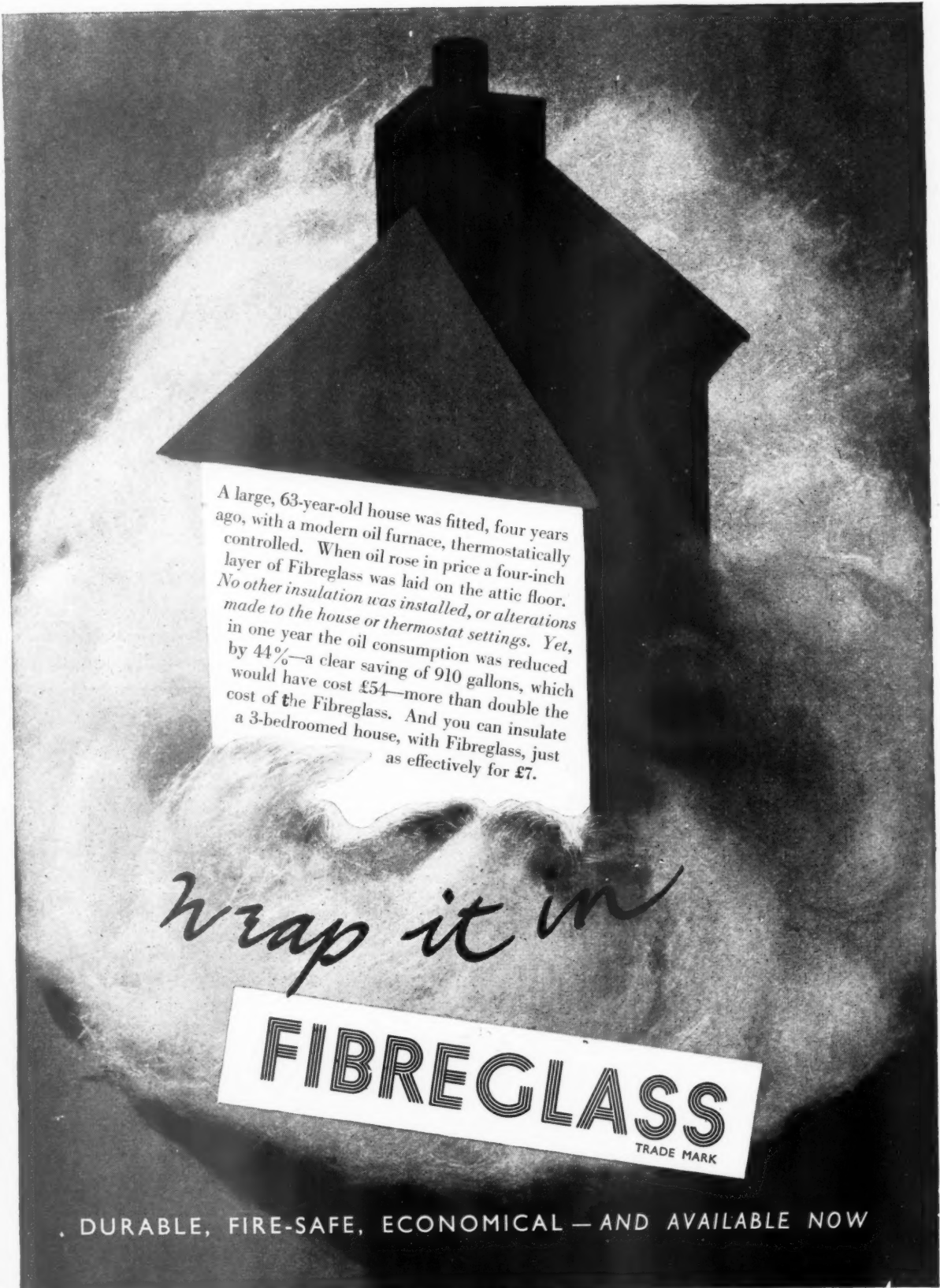
W. D. Hartley, Esq., F.R.I.B.A.
H. J. Stribling, Esq., F.R.I.B.A.



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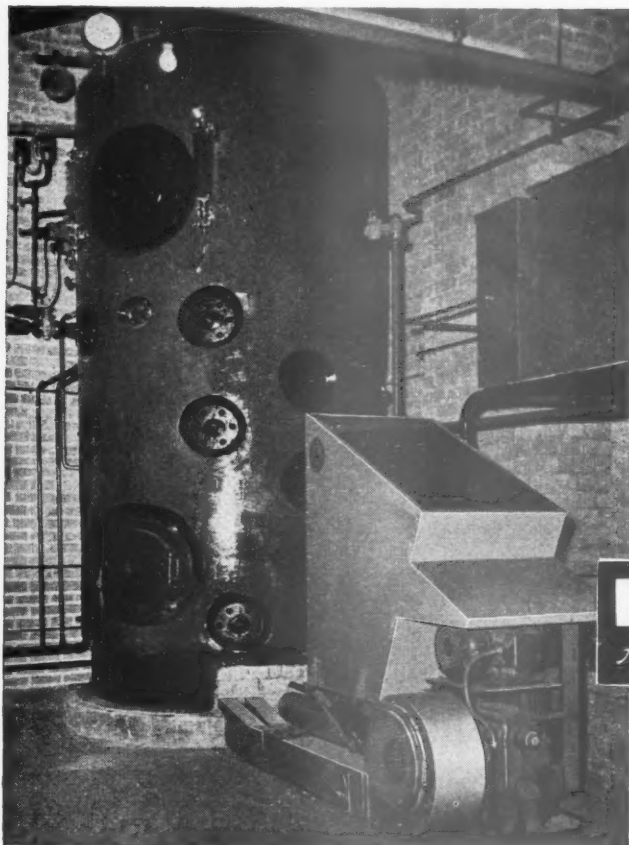
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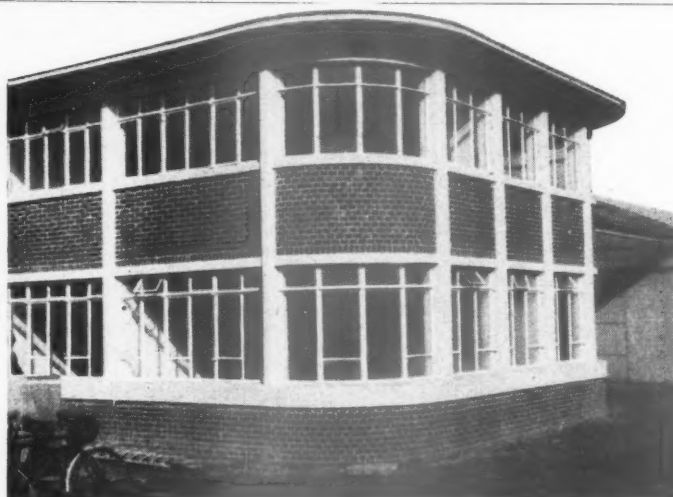
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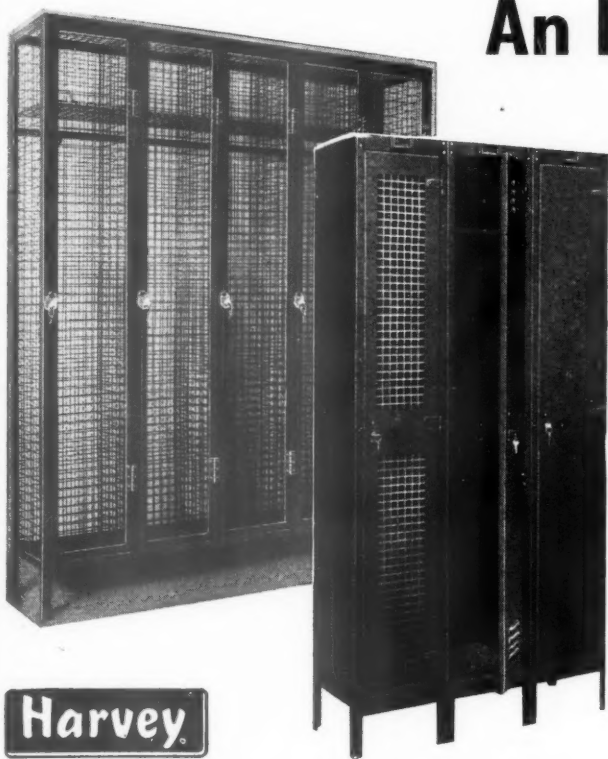
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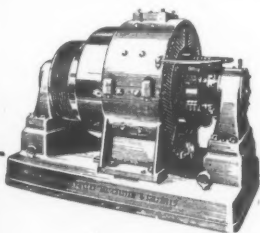
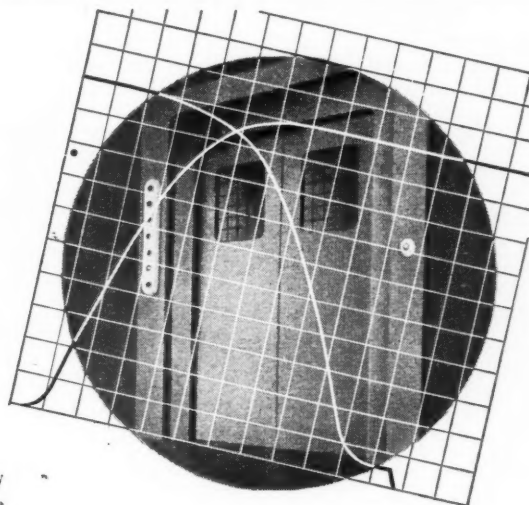
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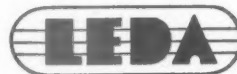
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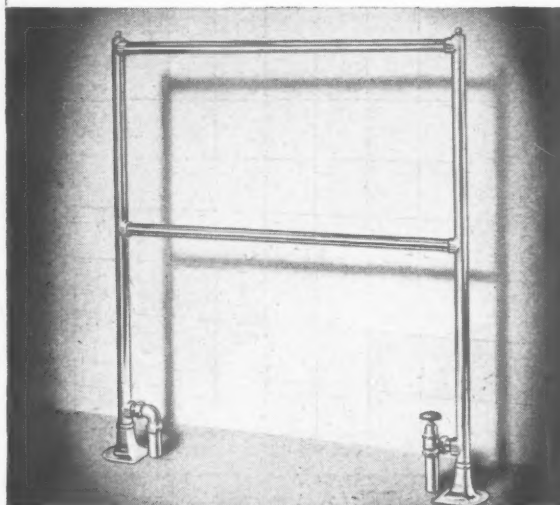
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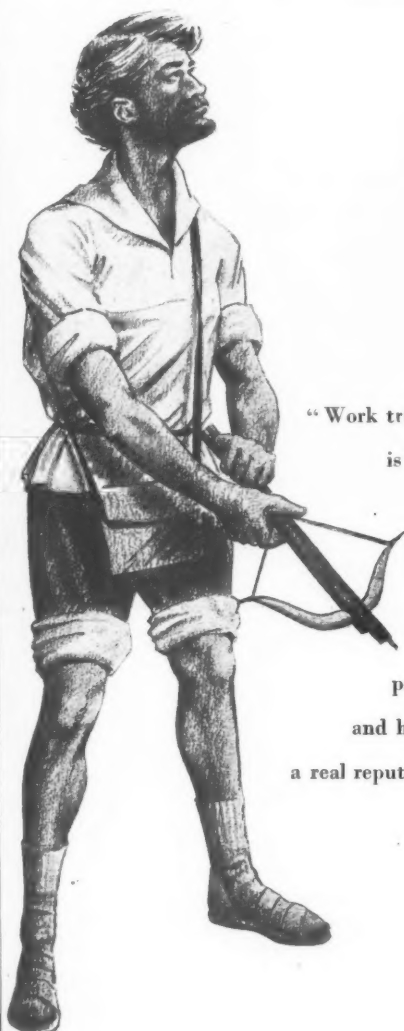
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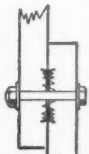
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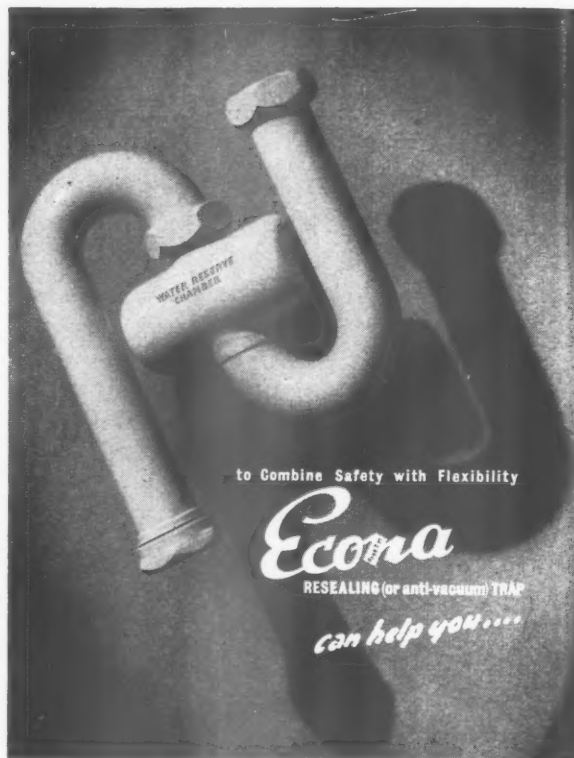
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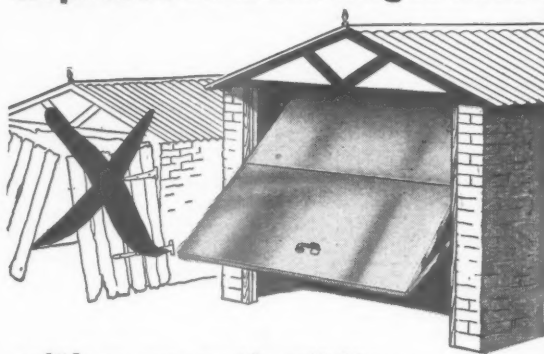
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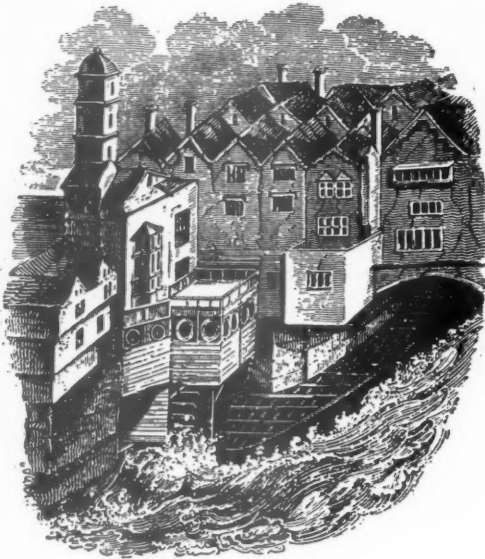
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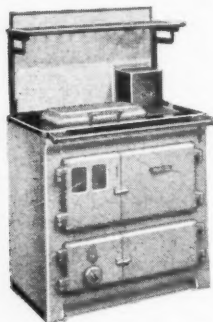
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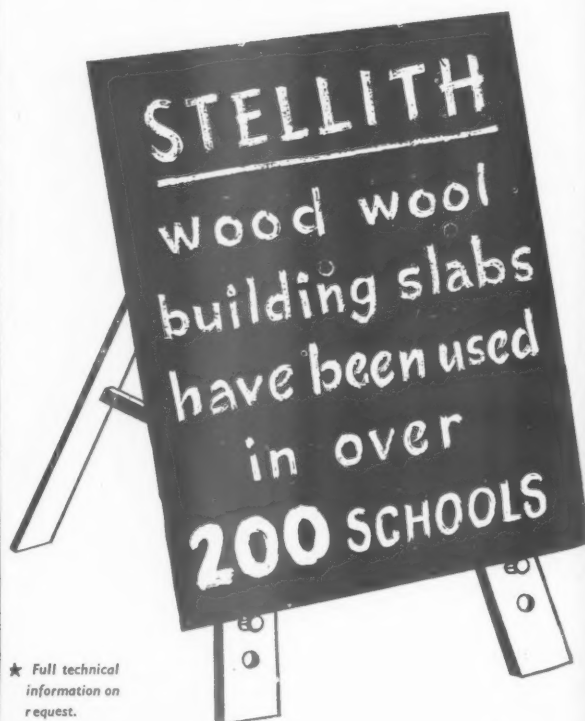
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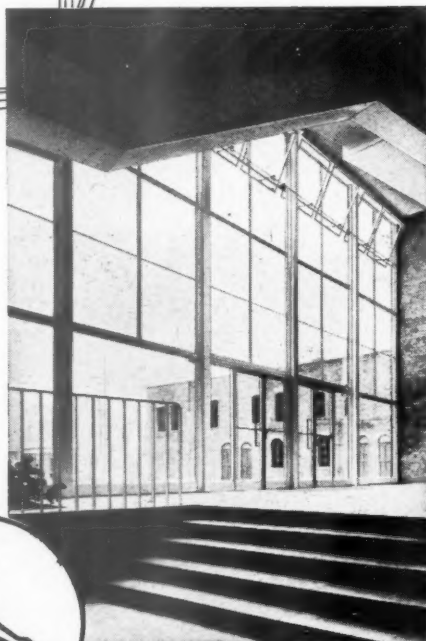
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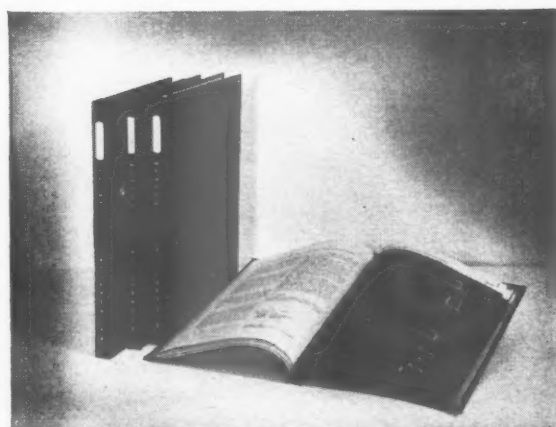
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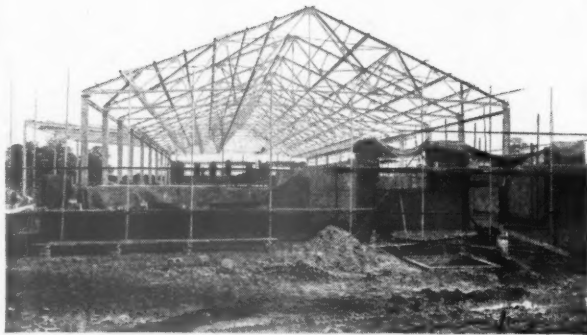
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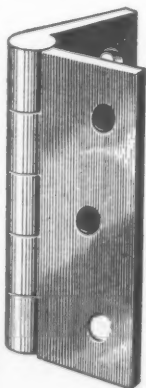
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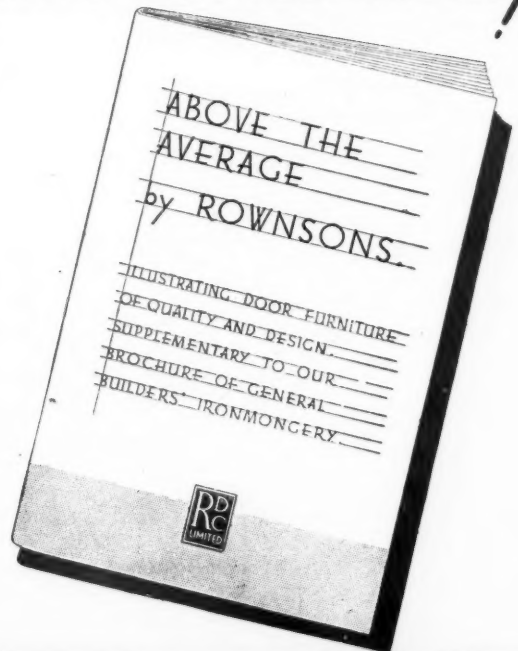
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21st September, 1954.

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CITY OF NEW SARUM
ARCHITECTURAL DRAUGHTSMAN required in City Engineer's office. Grade I (£490-£535). Applicants should be neat and expeditious draughtsmen with a sound knowledge of building construction and have had previous experience in the office of a housing authority or architect. Preference to applicants studying for a recognised architectural qualification.
 Pensionable post. Medical examination required. Applications stating age, qualifications, present and previous appointments with salaries and details of experience; with the names of two referees to the City Engineer, the Council House, Bourne Hill, Salisbury, by 5th October, 1954.
 Canvassing in any form will disqualify. 4121

COUNTY BOROUGH OF WOLVERHAMPTON.
APPOINTMENT OF ARCHITECTURAL ASSISTANTS.
ARCHITECTURAL ASSISTANTS required in the Borough Engineer's Department. Salary A.P.T. III £550-£595. A.P.T. IV £580-£625, or Grade A.P.T. V £620-£670, according to qualifications and experience.
 Appointments subject to one month's notice. Medical examination. Superannuable posts.
 National Joint Council conditions of service.
 Applications stating age, qualifications, present position and full details of experience, together with names of three referees should be delivered to The Borough Engineer, Town Hall, Wolverhampton, not later than Wednesday, 6th October, in an envelope endorsed "Architectural Assistant."
 A. G. DAWTRY, Town Clerk. 4099
 Town Hall, Wolverhampton.

WEST BRIDGFORD URBAN DISTRICT COUNCIL.
APPOINTMENT OF SENIOR ARCHITECTURAL ASSISTANT.
 Applications are invited for the appointment of a Senior Architectural Assistant in the Engineer and Surveyor's Department. The appointment is an established post and subject to the provisions of the Superannuation Acts.
 The salary will be in accordance with Grade V of the National Joint Council Scale of Salaries for Local Authorities, but may be subject to review in the light of the recent recommendations of the National Joint Council.
 Applicants should be Registered Architects, and preference will be given to persons having experience in the design of houses and other public buildings of Local Authority works.
 The Council will consider making a house or flat available to the successful applicant if required.
 Application forms may be obtained from the Engineer and Surveyor, The Hall, West Bridgford, Nottingham, and must be returned to him not later than 12 noon on Saturday, 23rd October, 1954.
 A. G. MANSFIELD, Clerk of the Council. 4114
 The Hall, West Bridgford, Nottingham.

BOROUGH OF ACTON.
APPOINTMENT OF ARCHITECTURAL ASSISTANT.
 Applications are invited for this appointment in Grade A.P.T. III (£550 to £595, plus London "weighting").
 Application forms may be obtained from the Borough Engineer, Town Hall, Acton, W.3, and must be returned to him by 18th October, 1954.
 Canvassing will disqualify.
 H. C. LOCKYER, Town Clerk. 4115
 Town Hall, Acton, W.3.
 24th September, 1954.

BOROUGH OF WREXHAM.
ARCHITECTURAL APPOINTMENT.
 Applications are invited for the appointment of ARCHITECTURAL ASSISTANT in connection with Capital Works at a salary in accordance with A.P.T. Grade V £620 to £670 per annum.
 Applicants should be Associate Members of the R.I.B.A. or equivalent qualification and have general experience in the design and development of neighbourhood units. Municipal Buildings and general architectural work undertaken by a Local Authority, and Planning experience will be an advantage.
 The Council is prepared to offer housing accommodation to the successful applicant, if married.
 Form of Application and Conditions of Service may be obtained from the Borough Engineer & Surveyor, 31, Chester Street, Wrexham. Applications on the prescribed form, together with copies of two recent testimonials and the names of two referees, should be delivered to the undersigned in an envelope endorsed "Architectural Assistant" not later than Monday, 18th October, 1954.
 PHILIP J. WALTERS, Town Clerk. 4125
 Guildhall, Wrexham.
 22nd September, 1954.

LONDON COUNTY COUNCIL.
ARCHITECT'S DEPARTMENT.
 Vacancy for Grade II Officer, salary £892 10s. to £1,071 in Theatres Division, A.R.I.C.S. or A.R.I.B.A. Particulars and application forms, returnable by 19th October, from Architect AR/EK/T/3, County Hall, S.E.1. (1259) 4109

COUNTY BOROUGH OF BARNSELEY.
BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.
APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for the above appointment at a salary in accordance with A.P.T. Grades I to III (£490-£595 per annum) the commencing salary to be fixed within these grades according to the qualifications and experience of the successful candidates.
 Applicants should have had a thorough architectural training, and be good draughtsmen and previous experience with a local authority will be an advantage although this is not essential. Assistance will be given in obtaining housing accommodation if necessary.
 The appointment will be subject to (a) the Scheme of Conditions of Service for A.P.T.C. Staff; (b) any other general conditions of employment operating within the Corporation from time to time; (c) one month's notice on either side and (d) to the Local Government Superannuation Acts, for which purpose the successful candidate will be required to pass a medical examination.
 Applications, stating age, present and previous appointments, qualifications, experience, etc., and giving the names of two persons for reference, should reach the Borough Engineer, Town Hall, Barnsley, not later than Monday, 18th October, 1954.
 Canvassing will disqualify.
 A. E. GILFILLAN, Town Clerk. 4126
 Town Hall, Barnsley.
 September, 1954.

TARVIN RURAL DISTRICT COUNCIL.
ARCHITECTURAL ASSISTANT.
 Applications are invited for the appointment of ARCHITECTURAL ASSISTANT in the Office of the Engineer and Surveyor.
 Applicants must have had sound training by pupilage and had previous experience in design and construction of building works, particularly in relation to housing.
 The salary will be in accordance with Grade II of the present A.P.T. division of the National Joint Council, viz.: £520 x £15-£555. A car will be an advantage, for which a travelling allowance in accordance with the Whitley Council Scale for 8 h.p. car will be made.
 The appointment will be subject to one month's notice in writing on either side, to the provisions of the Local Government Superannuation Act, 1937, and to the selected candidate passing a medical examination.
 Applications stating age, qualifications and experience, together with copies of three recent testimonials should be addressed to Mr. Thomas Prichard, M.I.Mun.E., and enclosed in an envelope endorsed "Architectural Assistant," and should reach this office not later than October 16th, 1954.
 A house will be made available to successful candidate if required.
 J. H. MOORE DUTTON, Clerk to the Council. 4127
 Westminster Buildings,
 Newgate Street, Chester.
 22nd September, 1954.

THE POLYTECHNIC
 309, Regent Street, W.1.
 School of Architecture, Surveying, and Building.
 Applications are invited for the post of SENIOR LECTURER FOR ARCHITECTURE.
 Candidates should have had practical experience, and should possess the Diploma of a recognised school and have been admitted an Associate Member of the Royal Institute of British Architects.
 Salary in accordance with the Burnham (Technical) Scale for Senior Lecturers, which commences at £1,065 and rises by annual increments of £25 to a maximum of £1,215 plus London allowance of £36 or £48 per annum.
 Further particulars and application form, which should be returned by not later than 16th October, may be obtained by sending a stamped addressed foolscap envelope to the undersigned.
 J. C. JONES, Director of Education. 4130

COUNTY BOROUGH OF HUDDERSFIELD.
BOROUGH ARCHITECT AND PLANNING OFFICER'S DEPARTMENT.
 Applications are invited for TWO ASSISTANT ARCHITECTS (Grade A.P. and T., VIII-£785-£860).
 Applicants must be Associate Members of the Royal Institute of British Architects.
 The Council has an interesting and varied programme of Schools and other Public Building work.
 The posts are subject to the National Scheme of Conditions of Service, as adopted by the Council, and to medical examination. Housing accommodation will be provided for the successful applicants, if required.
 Applications, with the names and addresses of two referees, should reach S. M. Richmond, F.R.I.B.A., A.M.T.P.I., Borough Architect and Planning Officer, High Street Buildings, Huddersfield, not later than 11th October, 1954.
 Canvassing, directly or indirectly, will disqualify.
 HARRY BANN, Town Clerk. 4149
 Town Hall, Huddersfield.
 September, 1954.

LONDON COUNTY COUNCIL.
ARCHITECT'S DEPARTMENT.
 ASSISTANT required for Design of Furniture, Exhibitions and Colour Schemes. A.R.I.B.A., specialist qualifications or experience. Salary up to £739 10s. Application forms, returnable by 19th October, from the Architect, AR/EK/F&D/1, County Hall, S.E.1. (1277) 4135

LONDON ELECTRICITY BOARD.
ARCHITECTURAL DRAUGHTSMEN.
 Applications are invited for the above positions in the Architect's Section of the Chief Engineer's Department in Central London.
 Applicants should be neat draughtsmen, and preferably have had several years' experience in an Architect's office.
 The post is graded under Schedule "D" of the National Joint Board agreement as Grade 6-£458 to £595 7s. per annum, inclusive of London allowance.
 Application forms obtainable from Personnel Officer, 45, New Broad Street, E.C.2. Please enclose addressed envelope and quote ref. V/1785/A on envelope and all correspondence. 4138

COUNTY DUBLIN COUNTY COUNCIL.
PLANNING ASSISTANTS (TEMPORARY).
 The Dublin County Council invites applications for the above named posts in the County Planning Department. The salary attaching to the posts is £715 per annum, inclusive of temporary allowance. The appointment will be for a period of six months in the first instance.
 Further particulars, including application forms, may be obtained from the undersigned, to whom completed application forms should be returned not later than 5 p.m. on 21st October, 1954.
 J. D. WILLIAMS, Acting County Secretary. 4134
 11, Parnell Square.
 30th September, 1954.

COUNTY BOROUGH OF GREAT YARMOUTH.
EDUCATION COMMITTEE.
 Applications are invited for the following appointment on the permanent staff in the Department of the Schools Architect, Mr. F. Jackson, A.R.I.B.A.
JUNIOR ASSISTANT ARCHITECT, A.P.T. Grade III (£550 x £15-£595). Candidates should have had good architectural training and general experience, and be capable of preparing detail and working drawings.
 Previous local authority experience is not essential. Appointment will be terminable by one month's notice on either side, and is subject to the provisions of the Local Government Superannuation Act, 1937.
 Canvassing will be deemed a disqualification, and candidates must disclose any relationship to any member of or holder of any senior office under the Council. Candidates who fail to do so will be disqualified or, if appointed, liable to dismissal without notice.
 Applications, stating age, qualifications, experience, and giving details of past and present appointments, together with copies of two testimonials, must be delivered to the undersigned not later than the 21st October, 1954.
 D. G. FARROW, Chief Education Officer. 4136
 Education Offices, 22, Euston Road,
 Great Yarmouth.

ARMAGH COUNTY COUNCIL.
TEMPORARY PLANNING ASSISTANT.
 Applications are invited for the temporary post of Planning Assistant in the County Planning Department, 10, Abbey Street, Armagh, at a salary of £425-£525 per annum, according to qualifications and experience.
 Applicants should have passed the Intermediate Examination of the R.I.B.A. or equivalent examination, and have had approved training in an Architect's office, including site and estate planning for building development, but Architectural Draughtsmen with suitable experience and other qualifications will not be precluded from applying for the post.
 Applications, accompanied by copies of three recent testimonials, will be received not later than the 14th October, 1954, by the undersigned, from whom forms of application must be obtained.
 Examples and tests of Draughtsmanship, etc., may be required of those short-listed.
 H. W. F. REID, Secretary to County Council. 4150
 1, Charlemont Place, Armagh.
 22nd September, 1954.

MINISTRY OF HOUSING AND LOCAL GOVERNMENT ARCHITECT (MAIN GRADE) for special work with MINISTRY OF HEALTH. The Civil Service Commissioners invite applications for a pensionable post in London for specialised duties in a new Research Group to study design, planning and construction of hospitals. Candidates must be Registered Architects (by examination), and either F.R.I.B.A. or A.R.I.B.A. They must be able designers and have a sound knowledge of modern methods and new materials. Some experience of hospital work will be expected. Age at least 30 on 1st August, 1954. Salary (men), including extra duty allowance, £1,080-£1,426. Somewhat lower for women. Starting pay above minimum if exceptionally well qualified. Promotion prospects.
 Application form and further particulars from Civil Service Commission, Scientific Branch, 30, Old Burlington Street, London, W.1, quoting No. S4381/54. Applications to be returned by 25th October, 1954. 4140

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HEBBURN URBAN DISTRICT COUNCIL. APPOINTMENT OF ASSISTANT ARCHITECT. GRADE VI.

Applications are invited from suitably qualified persons for the appointment of Assistant Architect in the Architectural Section of the Engineer and Surveyor's Department.

The salary will be in accordance with Grade A.P.T. VI of the National Scale, i.e. £695 to £760 per annum. The appointment will be subject to the National Scheme of Conditions of Service, and the provisions of the Local Government Superannuation Act, 1937.

The successful candidate will be required to pass a medical examination.

Preference will be given to Registered Architects, who have had experience in the architectural design and construction of housing and general municipal works. Candidates should have had sound practical experience and should be capable of carrying projects through all stages.

The provision of housing accommodation will be considered if necessary.

Applications, endorsed "Assistant Architect," together with copies of three recent testimonials, must be received by the undersigned not later than Tuesday, the 12th October, 1954.

J. R. PASSEY, I.L.B.,

Clerk of the Council.

Council Offices, Argyle Street,
Hebburn, Co. Durham. 4148

H.M. PRISON COMMISSION have a vacancy for one temporary ARCHITECTURAL DRAUGHTSMAN (male or female). Salary (men) £420 at age 21, rising to £580 at age 28, then to £670; (women) £420 at age 21, rising to £565 at age 28, then to £590. Starting pay according to age up to 28, then according to age and qualifications. Hours of duty: 44, plus overtime. Annual leave 24 working days, rising to 28 working days after three years, plus 9 days public and privilege holidays. Candidates must have had a recognised training, with a good general knowledge of construction and surveys. Regulations and application forms from the Establishment Officer (R.126/2/19). Prison Commission, Horseferry House, Dean Ryle Street, London, S.W.1, to be returned by 14th October, 1954. 4141

UNIVERSITY OF CAPE TOWN.

Applications are invited for two posts of STUDIO MASTER in the School of Architecture. The successful applicants must be Members of the South African Institute of Architects (or eligible for membership), must be thoroughly experienced in architectural practice in all its branches; must be capable of taking charge of the studio work of any group of students from the first to the final years and must be able to lecture in some subject or part of some subject to be agreed upon. They will be required to devote an average of 25 hours per week to University work. Private practice is allowed, provided that it does not interfere with University duties.

The substantive salary scale offered to applicants with some years of professional experience is £850-£1,150 per annum. There is also a temporary cost of living allowance for a married man (at present £234 per annum). The salary scale recognised for the purpose of the Provident Fund is £800-£1,050 per annum.

The successful applicants will be under the direct supervision of the Director of the School of Architecture.

Applications (with copies of testimonials) should state age, experience and qualifications and give the names of two referees whom the University may consult. Two copies of the application should reach the Secretary, Association of Universities of the British Commonwealth, 5, Gordon Square, London, W.C.1 (from whom a memorandum giving the general conditions of appointment should be obtained), not later than 18th November, 1954. An additional copy should be sent direct by air mail to the Registrar, University of Cape Town, Private Bag, Rondebosch, South Africa, by 15th November, 1954. 4153

EAST ANGLIAN REGIONAL HOSPITAL BOARD.

ASSISTANT ARCHITECTS. Candidates must be Associate Members of R.I.B.A. and Registered Architects. Good general experience in design, construction, and specification writing essential. Knowledge of hospital work desirable. Salary: £500-£565 per annum. Additional increments based on experience and age may be granted to suitable applicants.

ARCHITECTURAL ASSISTANTS. Intermediate Examination of R.I.B.A. or recognised equivalent essential. Applicants must have had experience in architectural work. Commencing salary, within grade £440-£525 per annum, will depend on age and practical experience since obtaining qualification, but will not exceed £525.

DRAUGHTSMEN (Architectural or Engineering). Applicants must have had suitable training and experience in architectural or engineering work. Salary: £360 per annum at age 21, or over-£545.

Appointments subject to National Health Service (Superannuation) Regulations. Applications, stating age, qualifications and experience, with names of three referees, to Secretary of Board, 117, Chesterton Road, Cambridge, by 18th October, 1954. 4147

PADDINGTON BOROUGH COUNCIL

require DRAUGHTSMAN in architectural drawing office. Salary according to age (for men £310 at 21, rising to £500 at 30; slightly lower for women). Appointment suitable for probationer members of R.I.B.A. Send particulars of age, education, training, experience, national service, names and addresses of two referees, to the undersigned by 11th October, 1954, quoting A.180.

W. H. BENTLEY,

Town Clerk.

Town Hall, Paddington Green, W.2.
22nd September, 1954. 4143

COUNTY BOROUGH OF DUDLEY.

ASSISTANT ARCHITECT, GRADE V. Applications are invited from Associates R.I.B.A. for the above appointment in the Department of the Borough Architect.

Applications, stating age, qualifications and experience, and giving the names of two referees, should reach me not later than 10th October, 1954.

P. D. WADSWORTH,

Town Clerk.

The Council House, Dudley. 4146

NIGERIAN COLLEGE OF ARTS, SCIENCE AND TECHNOLOGY.

(Principal: C. A. HART, T.D., D.Sc., Ph.D., M.I.C.E., F.R.I.C.S.). Applications are invited for the posts of (i) HEAD OF DEPARTMENT OF ARCHITECTURE, to be responsible to Principal for design and construction (by contractors) of certain College buildings and supervision of professional architectural courses (ii) ASSISTANT to the Head of Department. Membership of R.I.B.A. essential, recognised diploma or degree desirable. (Membership of I.Struct.E., R.I.C.S., or T.P.I. added qualification.)

Now in the early stages of development, the College is autonomous, complementary in function to University College, Ibadan, and of comparable status. It will have branches at Zaria, Ibadan and Enugu.

Salary scale for (i) £1,690-£1,960 p.a., for (ii) £830-£1,560 p.a., incl. overseas pay. Posts are pensionable, but contract appts. for 2 tours of service might be made in first place. Furnished houses provided, rent £65-£150 p.a., according to salary. Free 1st class passages, one each way for each tour of service, for persons appointed and wives; either passage allowance or maintenance allowance for up to two children under 18. 7 days' leave on full salary for each month's resident service. Tours of service likely to be 10-18 months.

Write for further information to Secretary, Advisory Committee on Colonial Colleges, 1, Gordon Square, London, W.C.1. Closing date for applications (6 copies), 15th November, 1954. 4139

COUNTY BOROUGH OF SOUTHAMPTON.

BOROUGH ARCHITECT'S DEPARTMENT. Applications are invited for architectural staff to work on major projects.

(a) SENIOR ASSISTANT ARCHITECT A.P.T. Grade VII (£735-£810).

(b) SENIOR ASSISTANT ARCHITECT A.P.T. Grade VI (£695-£760).

Applicants should be Registered Architects. Housing accommodation may be available.

(c) ASSISTANT ARCHITECT A.P.T. Grade IV (£580-£625).

(d) ARCHITECTURAL ASSISTANT A.P.T. Grade II (£520-£565).

Salary scales are under review and subject to increase on January 1st, 1955.

Application forms from Borough Architect, Civic Centre, Southampton, to be returned by Wednesday, October 13th, 1954. 4155

Architectural Appointments Vacant

4 lines or under, 7s. 6d.; each additional line, 2s.

The engagement of persons answering these advertisements must be made through a Local Office of the Ministry of Labour or a Scheduled Employment Agency if the applicant is a man aged 18-64 inclusive or a woman aged 18-59 inclusive unless he or she or the employment is excepted from the provisions of the Notification of Vacancies Order, 1952.

REQUIRED for Architects' office, Central London area, young qualified ASSISTANTS interested in design and construction. Write, stating experience and salary required. Box 2325.

ASSISTANT required immediately by a firm of Architects in Doncaster. State age, experience, and salary required. Box 4026.

JUNIOR and SENIOR ARCHITECTURAL ASSISTANTS and DRAUGHTSMEN for large and varied practice in Home Counties. Salary required and details of experience to Box 3512.

RONALD WARD & PARTNERS urgently require ASSISTANTS of various grades. Apply Sloane 8291 and Tate Gallery 1925, or write, 17, Lowndes Street, S.W.1. 3696

CO-OPERATIVE WHOLESALE SOCIETY LTD. ARCHITECT'S DEPARTMENT, LONDON.

APPLICATIONS are invited for the following:-

(A) ASSISTANT ARCHITECTS of Intermediate and Final R.I.B.A. standard for work on varied and interesting projects.

(B) STRUCTURAL ENGINEER'S ASSISTANT, aged 20/25. Should have experience in structural steel design to B.S.S. 449 1948 and C.P. 113.

The appointments are permanent and pensionable and offer prospects of up-grading.

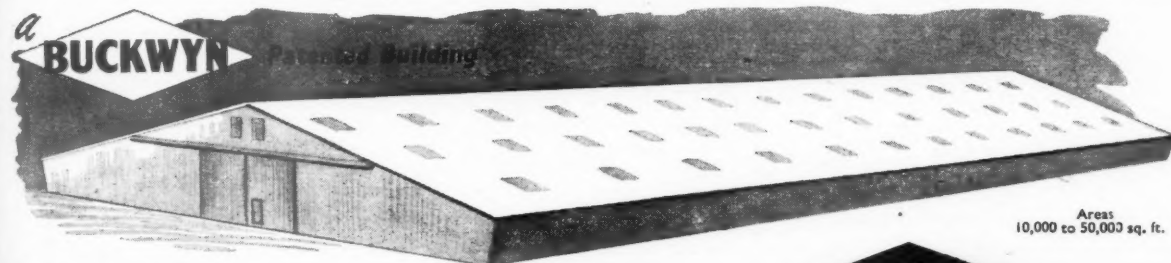
Applications stating age, experience, qualifications and salary required to W. J. Reed, F.R.I.B.A., Chief Architect, Co-operative Wholesale Society Ltd., 99, Leman Street, London, E.1. 3979

WELL-KNOWN firm of Architects, Melbourne, Australia, invite applications for a Senior Staff appointment of QUALIFIED ARCHITECT.

Applicants must be Members of the R.I.B.A. and to have had considerable practical office experience, and must be able to undertake preparation of working drawings and specifications of large industrial and commercial projects and supervise construction.

Appointment will be for a minimum of two years with salary range of £1,500-£2,000 Australian. Successful applicant after interview in London will receive some assistance in passage to Australia.

Applications should be addressed to Box No. 74, c/o, Dawsons, 129, Cannon Street, London, E.C.4. 4157



Areas
10,000 to 50,000 sq. ft.

The World's most economical warehouse

As adopted by the Admiralty, the Ministry of Works, the Ministry of Supply and Foreign Governments.

Frame construction in tubular steel and high tensile cable, Buckwyn metal tiled in aluminium or steel with or without insulation for all climatic conditions.

Complete buildings from 7/6 sq. ft. delivered on site or F.O.B. or 9/- sq. ft. erected.

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BUCKWYN CONSTRUCTIONS LTD (Dept. 17) TWYFORD, BERKS, ENGLAND

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for economy
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ARCHITECTURAL ASSISTANT commercial, industrial and domestic practice. Able to deal with working drawings, detailing, etc. Salary £350/£450 according to experience. Apply with full particulars to Newman, Levinson & Partners, 54, Baker Street, London, W.1. Tel. WELbeck 0926/7. 3995

ARCHITECTURAL ASSISTANT required. To work under the supervision of Principal. Intermediate or Final standard. Domestic, Church, Factory Work, etc. Salary according to ability. P. W. Dawney & Carpenter, 131, Victoria Street, S.W.1 4093

BIRMINGHAM office requires immediately qualified ASSISTANT or good INTERMEDIATE for Schools Projects. Office also busy on Industrial and Ecclesiastical work. Salary according to experience, but in the range of £400 to £600. Please reply, giving details of age, experience, and when free, to Box 4064.

ARMSTRONG SIDDELEY MOTORS require experienced ARCHITECTURAL ASSISTANTS for Works' Engineers' Department. Capable of surveying, designing and detailing all types of industrial buildings, and with experience of factory services. Only first-class men need apply to: Reference HH.2/P.R., Personnel Manager, Armstrong Siddeley Motors, Coventry. 4059

DESIGNER DRAUGHTSMAN required by shop fitting and exhibition contractors. Good previous experience essential in design presentation and working drawings. Box 4072.

A LONDON Firm with wide variety of design and construction, requires SENIOR ARCHITECTURAL ASSISTANT, Associate R.I.B.A. Fully experienced. Age 30/40. Box 4071.

ACCURATE DRAUGHTSMAN required by West End Architect. Box 3975.

DRAUGHTSMAN wanted to assist Designer of Church, School and Domestic Woodwork Furniture and Interiors. State age, experience, and salary. Walker-Symondson, Ltd., Brantree Road, Ruislip. Tel.: Ruislip 2256. 4032

D. C. DBNTON-SMITH & PARTNERS, Chartered Architects, Surveyors, of 40, Regent Street, Cambridge, and 5, Lynn Road, Bly, have vacancies for ARCHITECTURAL ASSISTANTS, qualified by examination or experience in connection with Local Authority and other Housing, Ecclesiastical, Agricultural and Industrial Buildings, etc. Applicants must be sufficiently competent to handle projects throughout with minimum supervision. Salaries up to £600, depending upon capabilities. Written applications, giving particulars, are invited. 4038

DRAUGHTSMAN/LAND SURVEYOR required by S.W. London Estate Developers. Must be experienced levelling and chain-survey and able to drive. Interesting work for keen young man with initiative and ability to work with minimum supervision. Write giving full details and salary required to Box 4040.

A MAJOR Oil Company, undergoing rapid expansion, requires ARCHITECTURAL ASSISTANT of Intermediate standard for its London Head Office. Applicants must be capable of carrying out work on the design and re-modelling of Service Stations, Social Club. Generous sickness benefits. Pension and Life Assurance. Luncheon Voucher Scheme. Write, giving full details, stating age, experience, and salary required, quoting ref. no. AAA 293 to Box 4152.

LOUIS DE SOISSONS, Peacock, Hodges, Robertson and Fraser, have vacancies for ARCHITECTURAL ASSISTANTS in their Plymouth office. The work is interesting and varied, and includes Schools, Churches, Flats, Housing and Commercial Buildings. Applications in writing, giving details of training, age, experience and past employment, should be sent to 5, Portland Square, Plymouth, not later than 8th October, 1954. 4156

ARCHITECT'S JUNIOR ASSISTANT urgently required in busy Surrey office. Keen and efficient draughtsman for position which offers opportunities to control small jobs. Box 4154.

ARCHITECTURAL ASSISTANT, temporary, required for British Transport Hotels & Catering Services, located London, Members of R.I.B.A. or with equivalent technical qualifications preferred. Experience in design of hotel and catering establishments an advantage. Salary £600-£700 according to experience. Apply in writing, giving full personal details to The Officer for Personnel, British Transport Hotels & Catering Services, St. Pancras Chambers, London, N.W.1. 4132

ARCHITECTURAL ASSISTANT required in Old Established expanding busy country practice. Office experience essential. £500 p.a. or according to ability. Write Box 4129.

ARCHITECTURAL ASSISTANT, Intermediate standard required in small Westminster office. Salary £550 p.a. Write, stating age and details of experience. Box 4124.

JUNIOR ARCHITECTURAL DRAUGHTSMAN required of a standard approaching Inter. R.I.B.A., in Architect's Department of a Property Company in the City of London. Write, stating age, previous experience, and salary required, also date available. Box 4098.

EXPERIENCED ARCHITECTURAL ASSISTANT required for long established and busy practice. Energy and ability essential. Apply R. & D. Hall, F.A.R.I.B.A., Architects, Bangor, North Wales. 4100

ASSISTANTS required immediately. Must have at least attained R.I.B.A. Inter. Good salary to suitable applicants. Rossington & Fogden, Chartered Architects, 2, Drake Road, Tavistock. 4102

DESIGN RESEARCH UNIT require ARCHITECTURAL ASSISTANT, interested in the design of interiors. Salary from £400 to £550 p.a., according to experience. Apply in writing to 37, Park Street, London, W.1. 4103

VACANCY occurs in private practice in Westminster for ASSISTANT, between Intermediate and Final qualification. Applicants must be capable draughtsmen, and must have some practical knowledge of the conduct and supervision of works on site. Suitable applicants will be encouraged to take responsibility and use their own initiative. Reply, stating age, experience, and salary required, to Box 4104.

ASSISTANT of at least Inter. R.I.B.A. standard and with office experience required. Apply in writing, giving full particulars of experience, age, etc., to Sir Giles Scott, Son & Partner, 3, Field Court, Gray's Inn, W.C.1. 4105

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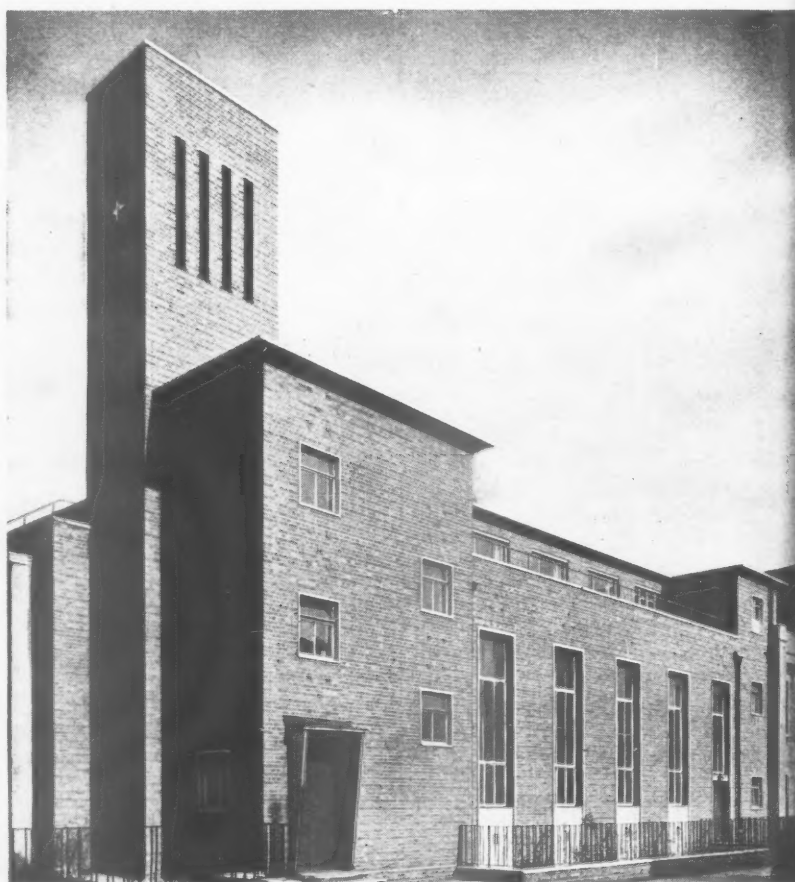
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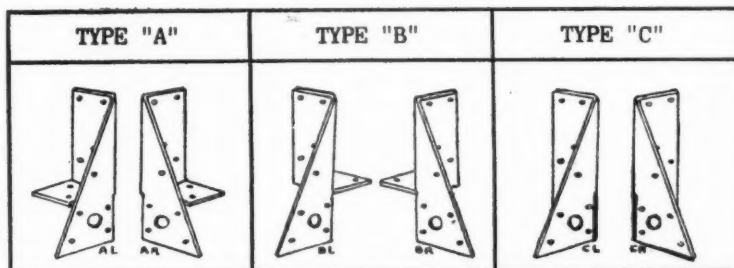
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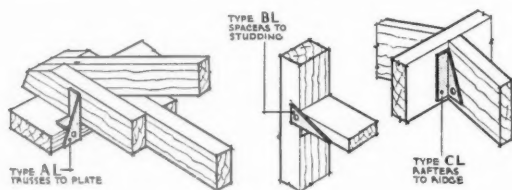
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