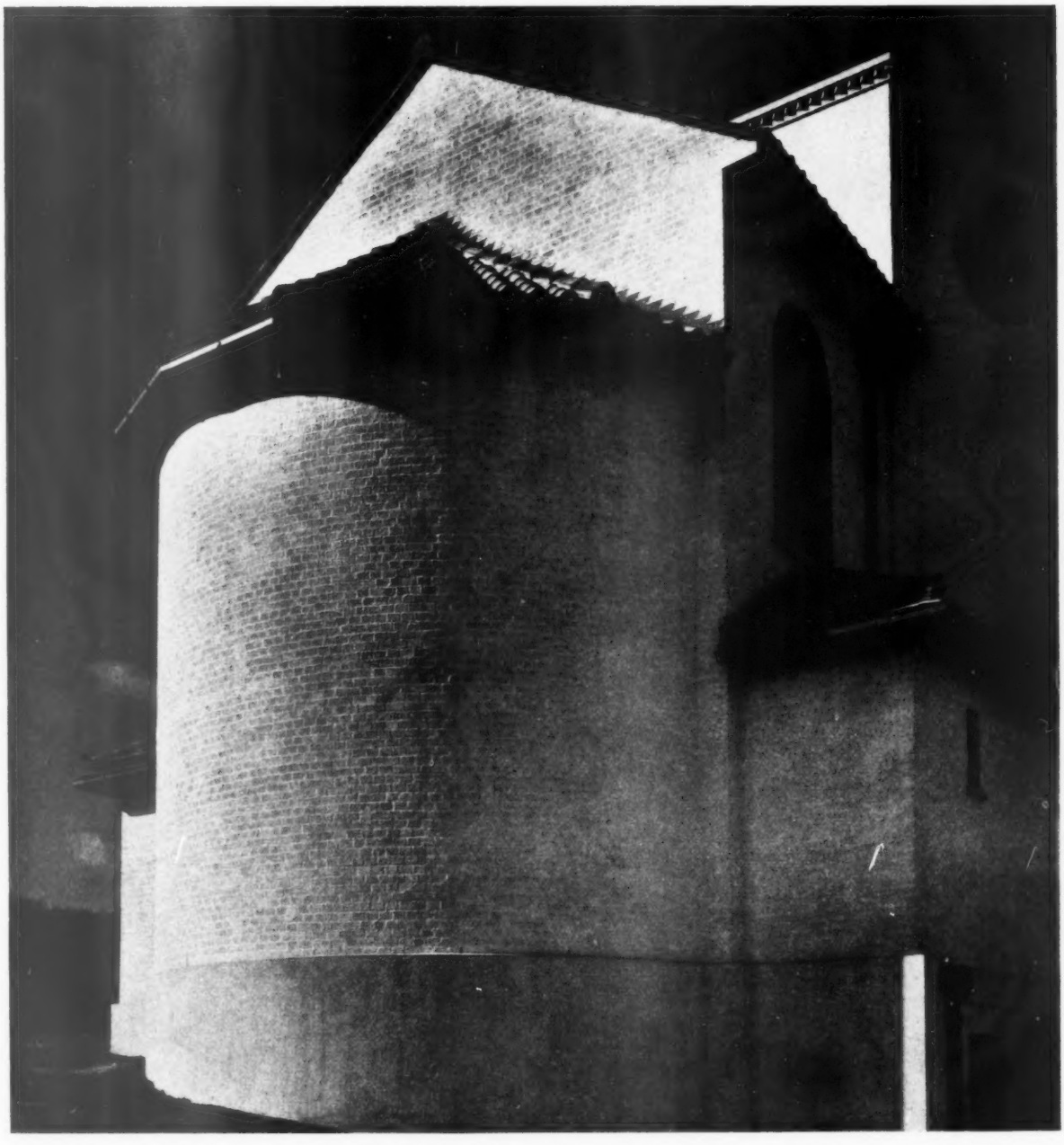

Church of St. Mary and St. George, Sands, HIGH WYCOMBE. 'Phorpres' Rustic bricks limewashed were used inside and out. Architect: Gerald Wellesley, F.R.I.B.A. and Trenwith Wills, A.R.I.B.A. Contractors: Wm. Hartley & Son, Wexham, Slough, Bucks.

THE ARCHITECTS' JOURNAL

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

THURSDAY, JUNE 15, 1939 NUMBER 2317 : VOLUME 89

PRINCIPAL CONTENTS

The photographs on pages 1019-1020, 1033-1050 were taken by G. E. Kidder Smith, F. S. Lincoln and Underwood and Underwood.

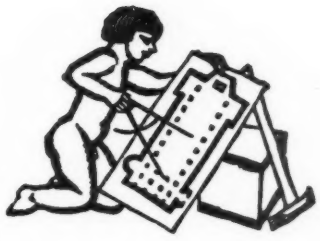
NEW YORK WORLD'S FAIR

There is a lot of "tomorrow" about the New York World's Fair; and this is the "Bridge of Tomorrow," which connects the Administration Building with the Central Exhibit Area. The steelwork is painted blue and the woodwork is varnished.

The Fair is illustrated and reviewed on pages 1033–1050 of this issue.

NEW ENGLAND

The buildings of the New England States at the New York World's Fair.



AMERICAN DIGEST

ON 680 acres of land near New York, reclaimed by Robert Moses, the World's Fair is now going strong. It is, of course, the World's largest. But with international exhibitions becoming annual events, it takes more than that—more even than a Royal visit—to move the ordinary man.

What is the New York World's Fair? It is an area on which the eastern seaboard of the U.S.A., and many other States of the Union and foreign countries, are showing to all comers what they are, what they do, what they would like to be thought and what they hope they can sell.

Beneath all the trimmings of American advance publicity—beneath the themes, slogans, statistics of hot dogs, and young ladies who wear nothing but pigeons—the ordinary man may have suspected this important intention, and may have been content to take it for granted. The Fair authorities seem to have decided that the ordinary visitor would take it for granted too. There is the THEME and the individual exhibits—and nothing much between them to preserve the visitor's sense of values.

In this issue the JOURNAL illustrates the Fair on 18 pages. They are pages of samples and could not well be anything else. In a World's Fair, Government, music and canned beans all have their place ; at New York, not only do they all have their place, but they all have *equality* of place. They all have an equal opportunity to get off. This equality of opportunity is represented by a lay-out of superlative beaux-artiness. From the Federal Building an Axis—and what an axis—runs well enough through the THEME to the New York City Building. Beyond this, the lay mind must begin to wander. But the architect is more fortunate. He is able to see in the Fair a digest of what the U.S.A. wants in its architecture, of what its architects believe, and of how much each group of architects have got of their own way.

The first glance at the lay-out shows that the Beaux Arts concepts of formality and symmetry controlled the main plan. The attitude of a Fair-on-a-large-scale to which Paris has accustomed us in international exhibitions, with all its merits of informality, light-heartedness and the unexpected, is there as well : but in the Fun Fair on the far side of the Boulevard.

On a site which was limited considering the number of exhibits, the Beaux Arts lay-out has obviously had disadvantages. The huge central Mall has caused crowding in adjoining blocks and few buildings can be seen to advantage. In Europe the Beaux Arts plan has been long considered unsuitable for an international exhibition. New York proves it, and transfers architectural interest to the individual buildings.

These have been chiefly designed by architects who submitted ideas in competition and were then given individual buildings. They show that the classical eclecticism for which America was so long famous is dead and gone. In its place there is careful simplicity that might at any moment produce something good (as in the THEME and Ford Buildings) ; an equally careful modernistic with low relief and murals ; there is the spectacular, and a good deal of the streamline style of General Motors. The sculpture, flags and other street furniture are second-rate.

Architecturally, it is disappointing that so much of the World's Fair is salesmanship and sideshows. The great change in the American outlook since the slump of 1929 : its Federal housing and labour schemes, the work of the Works Progress Administration, Civilian Conservation Camps and the Tennessee Valley project —the architectural results of these, progress in use of materials and some examples of the work of America's modern architects are what the British hoped to see in the World's Fair. If the last was asking too much, it is the more regrettable that the others have not been more in the limelight.

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NOTES & TOPICS

MUSEUM OF MODERN ART

THAT unbelievable institution, the Museum of Modern Art in New York, has recently opened its new building to the public. And as far as we can judge from Lewis Mumford's three-column write-up of it in *The New Yorker*, it is a modest landmark in the architectural history of New York City (not forgetting the World's Fair).

*

As Mumford puts it: "For those who have been brought up on the American tradition there is nothing to identify the new Museum of Modern Art as a museum." That goes for the building and the idea: a flexible museum of present-day achievement.

*

This gives me the excuse once again of rubbing in the admirable aptness of Mumford's architectural articles in the lay press—the like of which we never see in this country. For its general interest and for its "selling" technique, listen to this:

*

"Dramatically, there are two specially rewarding spots in the building. One is on the ground floor, where, as one turns a corner to go into the exhibition halls, one immediately beholds a wide expanse of garden. Here the sense of air, space, and light is in absolute contrast to the marmoreal bleakness affected by most museums—not least because the marble wall on the left is a brilliant red. The other spot that gives one sharp pleasure is the main stairs as they mount upward past a stunning frieze of statuesque green plants, which stand out against the filtered light of the great window. The combination of appropriate materials, light, colour, and living forms here demonstrates the rich decorative resources of modern architecture."

*

And listen to this:

"The entirely flexible arrangement of the exhibition space . . . permits the reshuffling of the space without regard for the façade. Accordingly, the picture galleries are actually designed to fit the pictures; they consist of a series of irregularly shaped rooms, small but with plenty of space for the spectator to get his distance. These galleries are arranged in such a fashion that, at whatever angle one turns, one is always facing a picture and never being hastily drawn towards an exit. The result is the display of a maximum number of paintings with a minimum of crowding. So far as I know, this is the one instance in which the principle of flexible interior space, first worked out for museums by Mr. Clarence S. Stein, the architect, has been utilized in thoroughgoing fashion. This innovation is bound to affect every future program for museum building."

VIGILANCE COMMITTEE

I have received this letter from Mr. Raymond Mortimer:—

I am not anxious to defend the list of recent buildings I sent you—I think it could be improved. But I wish to defend the principle upon which it was made. Because the buildings mentioned possess what you call "incompatible qualities," you suggest that critics, unlike painters, do not look at buildings objectively but like them for what might be called literary reasons. Take a selection of some of the best buildings of the past: the Parthenon, San Vitale at Ravenna, Beauvais Cathedral, Michelangelo's buildings on the Capitol, S. Andrea del Quirinale, the Petit Trianon—are not these distinguished by just such "incompatible qualities" as those of which you complain? To suppose that all the best buildings of our own time are based upon one principle, executed in one style and possess one set of qualities, is to trust a theory instead of trusting one's eyes.

André Gide, when asked to name the greatest French poet, answered "Victor Hugo, hélas!" If asked who was the best living English architect, I should have to reply "Alas, Sir Edwin Lutyens!" And by this I mean that though he has a taste for pastiche which I regret, he excels his rivals in that imaginative grasp of proportion upon which principally depends the æsthetic value of a building.

It so happens that I was one of the first critics in England to urge the claims of Corbusier and his fellows—at a time when these were neglected alike by the architects and the architectural press of this country. This fact emboldens me in my protest against what you call "consistency." In architecture, as in literature, painting and music, there are styles for which I have a particular taste. But as a critic I must consider that the merit of a work of art depends not upon the particular style employed but upon the use made of that style by the artist.

RAYMOND MORTIMER

*

Mr. Mortimer maintains that as a critic he is concerned with buildings that are individually good, without any questioning whether one has qualities incompatible with those of another. This is the only proper attitude for a critic and it is one we all share when judging buildings as buildings.

But in the Vigilance Committee voting (to which my remarks on artists and critics referred) we were looking for a *standard* which candidates would like contemporary buildings to reach—not for good buildings on their own merits.

*

In doing this, in my view, "incompatible qualities" do matter.

*

It would be useless, for instance, to choose Gibbs' Fellows' Building at Cambridge or Rickards' Deptford Town Hall—for both are incompatible with many qualities which contemporary buildings must have if they are to serve their primary purposes. "Consistency," therefore, does matter in this particular case.

*

This defence compels me to reserve my remarks on Lord Derwent's Vigilance Committee of ten for one more week.

R.A.F. IDYLL

I was a very privileged visitor to the R.A.F. Equipment Training Depot near Amersham on Sunday afternoon.

For the officers' mess the R.A.F. have there taken over the Louis XIII palace which once was the seat of a Rothschild —one of those fantastically grandiose affairs with alarming chandeliers hung from vaulted ceilings fifty feet aloft, richly gilded double doors some fifteen feet tall, silk tapestried salons . . . and without, some 200 acres of parterre, bosquet, grotto and ornamental pastureland. Young officers, tweed-coated, flannel-bagged, lolled inconsequentially on balustrades, listening to Cab Calloway caterwauling in the Porte Cochère.

*

Join the Air Force.

GOSSIPAL-TRUTH

A visit last month to "The Prospect of Whitby" at Wapping confirmed my fears that this riverside pub is in danger of becoming misused by visitors from Mayfair. Outside its doors cars stood ranked like polished black sausage-rolls, and within the bar the regular patrons politely countered the curious argot, half sycophantic, half facetious, which the quality adopt with the lower classes when they are not quite sure of their ground. A few days later a fashionable weekly published photographs of Society faces above hunks of cheese and blood-red talons clasping pints of old and mild.

*

Now this sort of thing may seem very unimportant, for it is notorious that socialites tire quickly of their places of amusement. The visits of Captain "Drags" Fotheringham and Lady "Pops" Cockrhobin are annoying perhaps, but they do not last long, and probably will not be repeated. Why, then, all this fuss? For this reason :

*

Fashion and society papers, as everybody knows, are read by and, indeed, cunningly written for, the submerged nine-tenths. It is they who are eager to know what places are "smart" and "amusing." After a short time-lag such places become the haunts of what may be termed the roadhouse crowd, the blonde totsies and their escorts, slick gentlemen with astrakhan hair and signet rings who drive up in the sort of car from the back of which coat-hangers have evidently only just been removed.

*

Now this type of patron, though no more unpleasant than the socialite, requires more sophisticated entertainment than a game of darts and a drink of beer. He also represents a very much more numerous class. The next step, therefore, is the demolition of the old pub, and the erection of an up-to-date roadhouse with every modern amenity—Elizabethan cocktail bars, armoured car-park attendants, and in the ballroom for your delight Art Needlework and his Six Swingers.

*

It is a melancholy and familiar tale, and the real villain of it is not the poor little rich girl in search of simple fun, nor the car-salesman seeing a bit of life, but the society paper.

*

You would never guess that it had such influence if you hadn't seen so often the results.

ZOO

The Zoological Society has rightly been praised for the encouragement and support which it has given in recent years to modern architecture. The high positions in the JOURNAL's "Best-Building-Ballot" of its new buildings show that its faith in contemporary design has been justified. All the same, somebody should really tell the Members how to look after their property.

*

Yielding to the recent intensive film and Press propaganda —which "foghorn" Goebbels himself might envy—I visited the Zoo last week to see the Giant Panda. (He was no disappointment, if a little grubbier than I expected.) I took the opportunity of going to see the latest buildings and was amazed at their condition. Frankly, they looked terrible; a disheartening sight for their designers, and a poor advertisement for modern architecture. Paint hung in ribbons from beneath canopies, metalwork was corroded and rusty, concrete arrises chipped and scarred, wall surfaces stained and cracked.

*

The Zoo's defence for this state of affairs presumably is that they ought to have been given materials which would weather without maintenance. This may be so, but no material can stand up to such constant wear without some attention. The evident lack of it is discouraging to the architects, depressing to the visitors, and does no credit to the owners.

PLANNED HAVOC

Among the cheerful documents put out from Government offices these days is one called WDP1 (Parts I, II and III). This, if all goes ill, should be of interest to architects. It is a "Return in respect of Properties Damaged by Air Raids," and Part I must be filled in by the local authority (architects' department, I suppose) in *quadruplicate*, and sent to various Government departments.

*

It will be recalled that in the September crisis hospitals found trouble in picturing themselves filling out returns of injured and their injuries in *triplicate* during the predicted knock-out air raid. Reported explanation at that time was that the Treasury wished to minimize claims for compensation.

CURE GUARANTEED

Among an increasing number of letters for and against Sir Alison Russell's triangular smoking-proof fireplace this moving story has been sent to me :—

Your note upon smoky fireplaces, with its appeal to the B.R.S., impels me to relate a recent experience of my own.

In a £1,500 house (completed about twelve months ago in a flood of self-congratulation consequent upon there being no extras whatever) the only open fireplace was in the main sitting-room. For no apparent reason bad down-draught occurred in certain winds, and various remedies and patent pots were tried without much effect.

I then reconstructed the fireplace opening in accordance with the B.R.S. "Rumford" diagrams, *vide* the A.J., still without success. Being sadly disappointed I wrote to them and they were good enough to come and inspect and make suggestions. As a result we put in a special patent fire-log and conformed minutely to the "Rumford" principles. The smoking then became even worse. Their further recommendation—to admit a current of air from the direction of the prevailing wind—was also unsuccessful, and only made the room even more unusable.

By now, distinctly strained relations had developed all round, and I was willing to try anything. It was, I believe, the chimney sweep who suggested that a tin "tallboy" "like Mr. So and So's" might be effective. It was tried, and there has been no further trouble. The former happy relations prevail once more, but so far I have lacked the courage to write to the B.R.S.

ASTRAGAL

NEWS

POINTS FROM THIS ISSUE

COMPETITION NEWS

MARKET HALL SCHEME, DUDLEY

Mr. Herbert T. Buckland, F.R.I.B.A., the assessor of the limited competition for the new Market Hall scheme, Dudley, has awarded the first premium to Messrs. A. T. and Bertram Butler.

There were five entries, and the design of Messrs. Harvey and Wicks was placed second, and that of Messrs. Martin, Martin and W. H. Ward third.

The scheme, which it was originally estimated would cost £250,000, provides a new Market Hall, surrounded by shops, on a site bounded by Hall Street, Birmingham Street, Fisher Street and Castle Street. The winners estimate that the buildings can be erected for £163,481 (exclusive of the cost of the site).

NEW FIRE STATION, WATFORD

The Corporation of the Borough of Watford invites architects who are members of the R.I.B.A. or its allied societies to submit in competition designs for a new fire station to be erected on a site in Nescot Road, Watford. Assessor: Mr. E. Maxwell Fry, B.ARCH., A.R.I.B.A. Premiums: £150 and £75. The last day for submitting designs is August 31, and the last day for questions July 14. Conditions of the competition may be obtained on deposit of £1 1s. from the Town Clerk, Municipal Offices, Watford.

In connection with the above competition, Mr. Walter O. Hudson, Secretary of the Institute of Registered Architects, writes: "I am directed to forward the enclosed copy of a letter recently addressed to the Town Clerk, Watford, by instruction from the Council of this Institute:

8th June, 1939.

The Town Clerk,
Municipal Offices,
Watford, Herts.

Dear Sir,

Architectural Competition for New Fire Station

I am directed by the Council of this Institute to draw your attention to the advertisements concerning the above, wherein it is clearly stated that the competition is limited to members of the R.I.B.A. and its allied Societies.

I am to point out that the passing of the Architects' Registration Act, 1931, and the Amending Act, 1938, had the effect of eliminating distinction in status among members of the profession, and the strict terms of your advertisement are construed as casting a reflection upon some 7,000 Registered Architects who do not happen to belong to the societies you nominate.

I am therefore directed to ask you that these limitations be removed, and that you would be good enough to have further notices published which will have the effect of throwing the competition open to all Registered Architects.

Yours faithfully,

WALTER O. HUDSON,
Secretary."

BANNED COMPETITION

The following notice has been issued by the R.I.B.A.:

"Members of the R.I.B.A. and of its Allied Societies must not take part in the competition for alterations to Cwm Working Men's Club and Institute, Cwm, Mon., because the conditions are not in accordance with the published regulations of the Royal Institute for architectural competitions."

THE ARCHITECTS' DIARY

Thursday, June 15

R.I.B.A., 66 *Portland Place, W.1. Exhibition of the collection of Architectural Drawings and Water-colours by John Sell Cotman, bequeathed to the R.I.B.A. by the late Mr. Sidney Kitson, F.R.I.B.A.* 10 *a.m. to* 8 *p.m. (Saturdays* 10–5). *Until June* 28.

HOUSING CENTRE, 13 *Suffolk Street, S.W.1. An Exhibition of Aerial Photographs. (Good and Bad Planning, Preservation and Despoliation, Survey Work, etc.) Until June* 24.

Monday, June 19

R.I.B.A., 66 *Portland Place, W.1. Announcement of result of Annual Election of Council. Informal Discussion of Matters of Professional Interest.* 8 *p.m.*

INSTITUTION OF HEATING AND VENTILATING ENGINEERS. *Summer Meeting. At the Grand Hotel, Eastbourne. Until June* 21.

INSTITUTION OF ELECTRICAL ENGINEERS. *Summer Meeting at the North-West Centre, Midland Hotel, Manchester. Until June* 23.

Tuesday, June 20

INSTITUTION OF CIVIL ENGINEERS, *Gt. George Street, S.W.1. "Air Raid Precautions: the Design of Bomb-proof Shelters." By Dr. David Anderson.* 6 *p.m.*

HOUSING CENTRE. *Lecture. "Modern and Traditional Design in Rural Building." By Archie Gordon.* 1 *p.m.*

Wednesday, June 21

R.I.B.A. CONFERENCE. *Dublin. Until June* 24. *Headquarters, 8 Merrion Square North, Dublin. Informal Reception at the Manse House at* 8 *p.m.*

INSTITUTE OF LANDSCAPE ARCHITECTS. *At 66 Portland Place, W.1. "Garden and Landscape: an Exhibition of the Work of the Landscape Architect." To be opened at* 3 *p.m. by the Hon. David Bowes-Lyon.*

SLUM CLEARANCE AND REHOUSING

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

Clearance Areas and Orders.—During April local authorities declared areas comprising 2,421 houses representing the displacement of 9,991 persons, as compared with 5,339 houses and a displacement of 19,677 persons in March.

The orders submitted during April covered 4,635 houses and the displacement of 16,811 persons, as compared with 2,728 houses and the displacement of 9,990 persons in March.

CIVIL DEFENCE BILL

The House of Commons devoted the first three days of this week to the Civil Defence Bill. This measure is expected to pass through the House of Lords and to become law by the end of the month.

An important new clause inserted during Tuesday's proceedings gives local authorities power to cover streets to make air-raid shelters. This clause had its origin in Liverpool where, as in many other towns, the difficulties of providing individual shelters in crowded areas would be considerable. Under the new clause a local authority may provide a public air-raid shelter on any highway and may, for that purpose, construct work in or on the highway or land adjoining the highway and affix appliances to any building or wall adjoining the highway. There is provision to protect public utility undertakers for disturbance or damage to mains, pipes, apparatus or works.

Clauses considered on the same day include provisions enabling owners of blocks of flats to build shelters and recoup the cost from higher rents spread over not more than ten years.

NEWS IN BRIEF

● On the Air. Thursday, June 15. West, 6.40 p.m. "Built to Last," an inquiry into the policy and practice of preserving buildings of historic and architectural significance in the West Country. 4—"Exeter." John Betjeman, Oliver Stonor, R. Glanc Saunders, Mayor of Exeter.

● At the annual meeting of the Royal Society of Ulster Architects the following office-bearers were elected: President, Mr. J. H. Stevenson, F.R.I.B.A.; vice-president, Captain J. R. Young, F.R.I.B.A.; hon. treasurer, Mr. J. S. Munce, B.E., M.INST.C.E.; hon. secretary, Mr. J. C. Stevenson. Council: Messrs. T. R. Eagar, R. H. Gibson, F.R.I.B.A., G. Hobart, John Seeds, F.R.I.B.A., and R. Ingleby Smith, O.B.E., F.R.I.B.A. Associate members: Messrs. W. M. Gamble and W. B. Maxwell. Honorary auditors: Mr. F. M'Ardle, M.INST.C.E.I., Mr. J. Scott, B.E.

● Newcastle's new Town Hall will cost £97,625 more than was estimated in October, 1937 (states the *Sunday Sun*). The Finance Committee reports that in October, 1937, the estimated cost of the building was given as £437,500 plus £30,000 for furnishings, a total of £467,500. Details of the estimated cost now prepared by the Special Committee total £565,125, an increase of £97,625.

● Mr. George Frederick Turner, M.B.E., M.A., F.R.I.B.A., of Goring-on-Thames and High Holborn, who died on April 25, left £49,364 (net personalty, £47,950).

● Work began on June 5 on the site of the National Theatre in Cromwell Road, South Kensington, London.

● The Finsbury Borough Council has approved a scheme to construct, at an estimated cost of £256,437, underground car parks in Finsbury Square and Charterhouse Square, which could be used as air raid shelters.

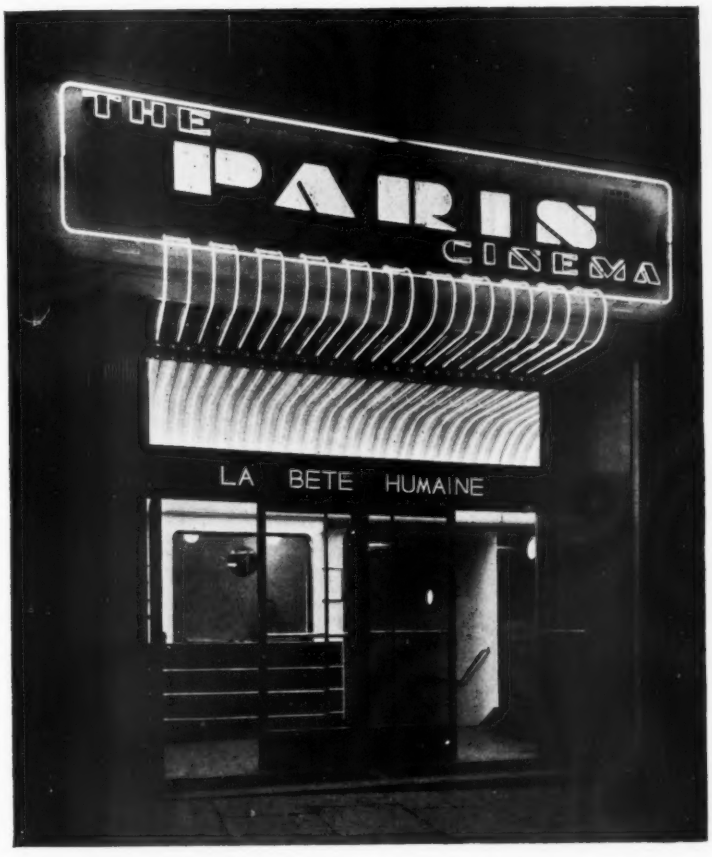
● At the annual convention of the Royal Incorporation of Architects in Scotland, Mr. T. F. Maclennan, Edinburgh, was re-elected President of the Incorporation, and Mr. John Wittet, F.R.I.B.A., Elgin; Mr. W. F. Crombie, L.R.I.B.A., Dumfries; and Mr. H. Hubbard, F.R.I.A.S., Kirkcaldy, were elected Incorporation representatives to the Council, and the Rev. Dr. J. Arnott Hamilton, Newbattle, was elected an honorary Fellow.

● We have been asked to point out that the architects for the new building for the Reserve Bank of India at Rangoon, illustrated in the Cement Marketing Company's advertisement in our issue of May 4, were Messrs. Palmer & Turner of Rangoon.

The usual weekly features—Prices, Trade Notes, Letters, etc., are held over from this issue; they will be resumed next week.

WORKING DETAILS : 755

ENTRANCE • PARIS CINEMA, LOWER REGENT STREET, S.W. • ROBERT CROMIE



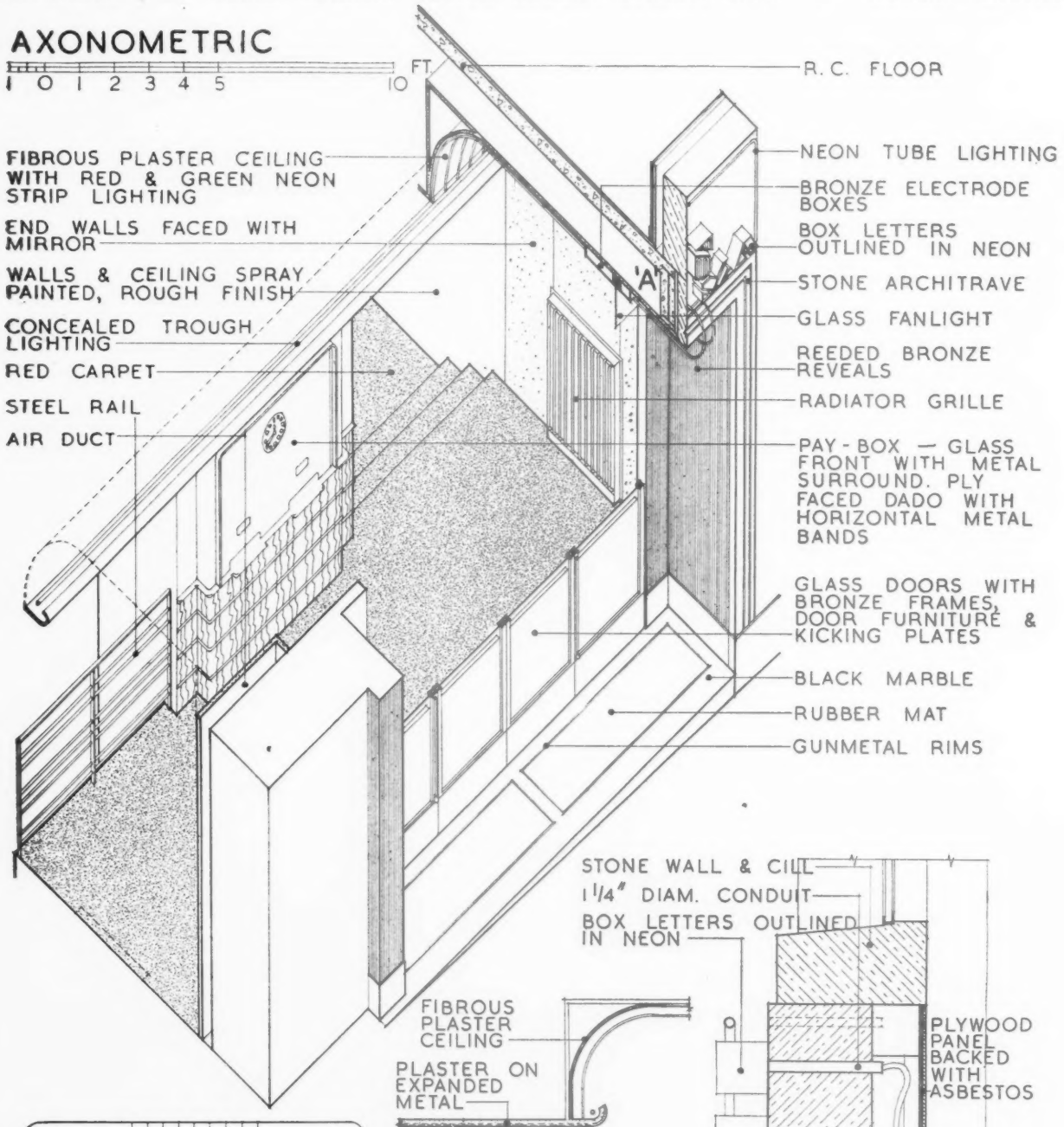
The entrance from Lower Regent Street is very small, the vestibule containing little more than the pay-box, as the main part of the cinema is in the basement of the building. The entrance vestibule has a coved ceiling consisting entirely of strips of red and green neon lighting ; this is reflected in the mirrors which entirely cover the end walls, thereby creating a much greater effect of space. The neon strip lighting is run through to the outside and incorporated in the name sign of the cinema.

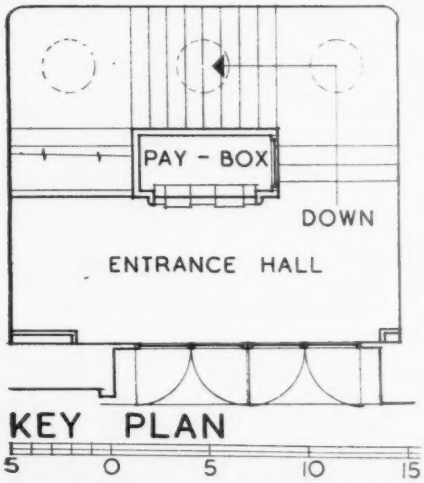
By the side of the pay-box, stairs lead down to the main foyer. Stairs and main foyer are close carpeted bright red, while the entrance vestibule is covered with cork tiles. Walls are spray painted white, with a rough finish, while the pay-box is mahogany faced, with glass above and the clock face engraved on the glass.

Details are shown overleaf.

WORKING DETAILS : 756

ENTRANCE • PARIS CINEMA, LOWER REGENT STREET, S.W. • ROBERT CROMIE





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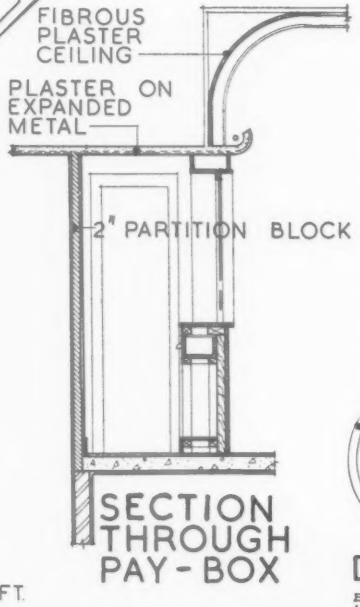
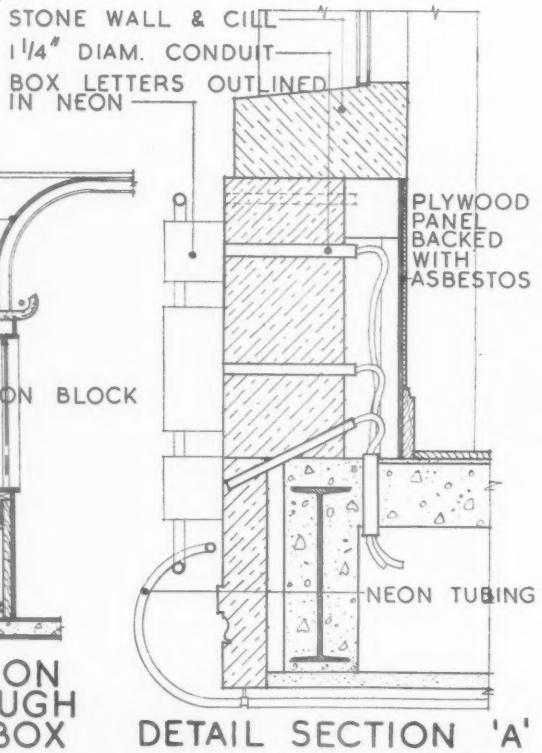


SECTION THROUGH PAY-BOX



DETAIL SECTION 'A'

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Axonometric and details of the entrance illustrated overleaf.

The Architects' Journal Library of Planned Information

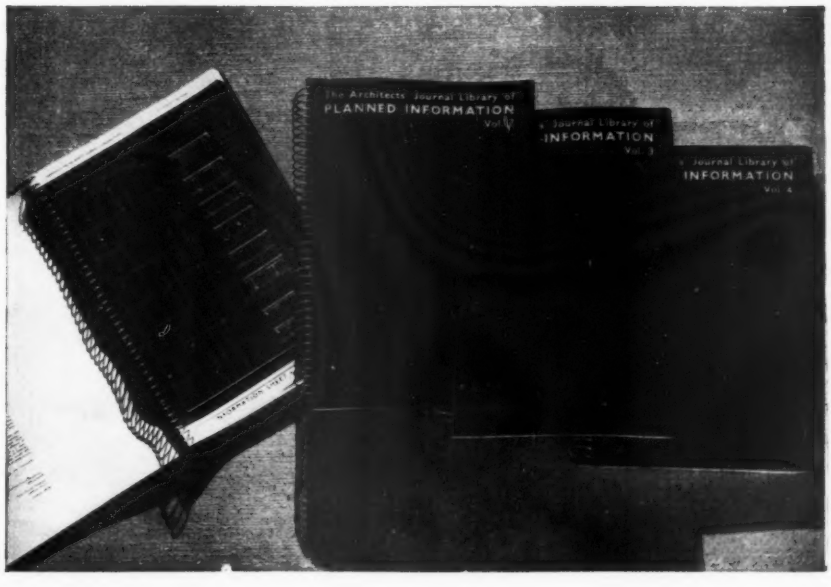
INFORMATION SHEET

SUPPLEMENT

SHEETS IN THIS ISSUE

737 Structural Steelwork

738 Metalwork



All the Information Sheets published in The Architects' Journal Library of Planned Information since the inception of the series to the end of 1938 have been reprinted and are available in five volumes. Price 21s. each.

Sheets issued since index :

701 : Tile Hanging
702 (420 revised) : Fixing Insulating Board
703 : Sheet Metals
704 : Plan Elements
705 : Metal Work
706 : Plan Elements
707 : Furniture Layout
708 : Plan Elements
709 : Flue Construction
710 : Natural Lighting
711 : Glass and Glazing
712 (109 revised) : Quarry Tiles
713 : Glass and Glazing
714 : Metalwork
715 (106 revised) : Hot Water Radiators (Pressed Steel)
716 : Furniture Layout
717 : Metalwork
718 : Flooring Materials
719 : Plumbing
720 : Water Heating
721 : Wall Facing Materials and Wallboards
722 : Roofing
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724 : Timber Construction
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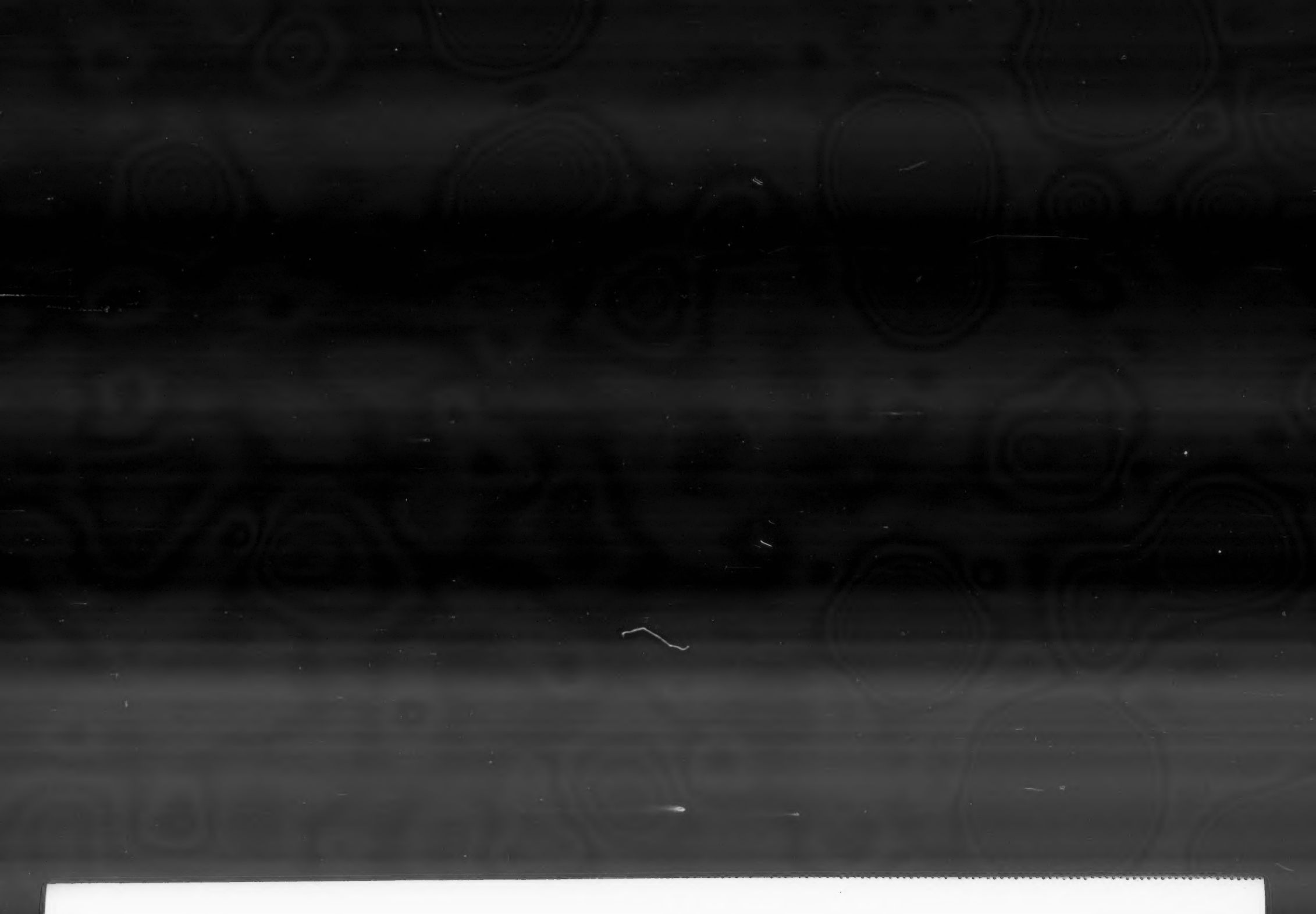
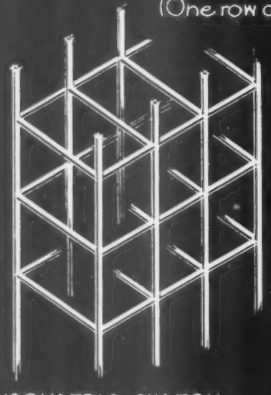
726 : Metalwork
727 : Waterproof Jointing and Bedding
728 : Timber Construction
729 : Steelwork
730 : Wall Facing Materials and Wallboards
731 : Metalwork
732 : Concrete Construction
733 : Structural Steelwork
734 : Metalwork
735 : Plumbing
736 : Structural Steelwork



DIAGRAMS SHOWING ECONOMICAL STRUCTURAL LAYOUTS FOR STEEL SKELETON FRAMES:

Ⓐ SLABS SPANNING PARALLEL TO LONGITUDINAL AXIS OF BUILDINGS.
(For suitable layouts when slabs span from front to back of buildings, see Information Sheet No. 5 of this series.)

① BUILDINGS WITH TWO ROWS OF COLUMNS.
(One row on each long outer wall.)



ISOMETRIC SKETCH.

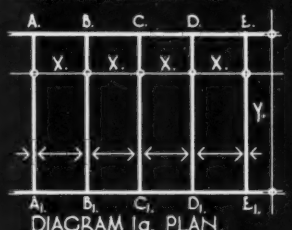


DIAGRAM 1a. PLAN.

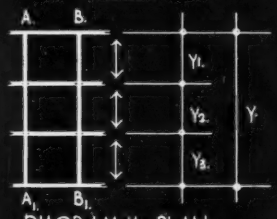
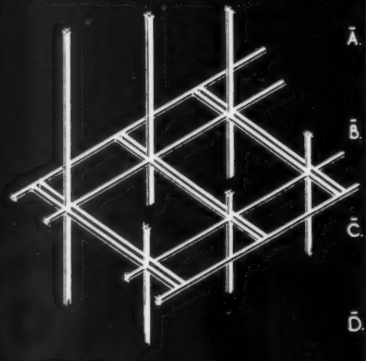


DIAGRAM 1b. PLAN.

(a) Beams A-E and A_1-E_1 carry outer walls only.
(b) Beams A-A_1, B-B_1, C-C_1, D-D_1, E-E_1 carry floor slabs.
(c.) x not less than 8'.0", nor more than 24'.0", economical value from 10'.0" to 14'.0".
(d.) y to be not less than 12'.0", nor more than 50'.0", economical value from 14'.0" to 20'.0"

Where x is greater than 18'.0", secondary beams at about 10'.0" intervals may be used, the formation of 3 equal panels being particularly economical, i.e. $Y_1 = Y_2 = Y_3$.

② BUILDINGS WITH TWO ROWS OF INTERNAL COLUMNS.
(Cantilever beams.)



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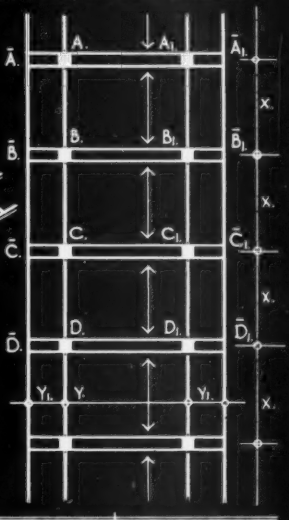
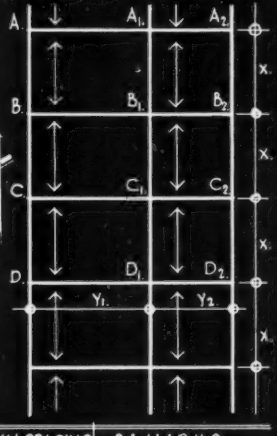


PLAN DIAGRAM 2.

BEAMS.	USE.	COLUMN SPACING	REMARKS.
A-B, A_1-B_1, etc.	Stiffening purposes only.	For dimensions x & y see diagram 1a.	•
Ā-B̄, $Ā_1$-$B̄_1$, etc.	To carry outer walls.		•
Ā-$Ā_1$, B̄-$B̄_1$, etc.	To carry floor slabs.	Economical value of Y_1 from 0·2y to 0·25y	Two channels passing opposite side of cols.

③ BUILDINGS WITH THREE ROWS OF COLUMNS.

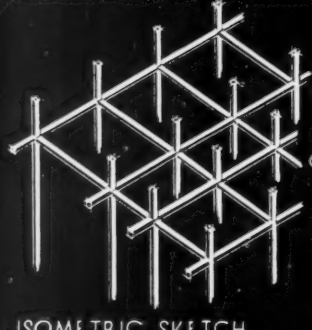
ISOMETRIC SKETCH.



PLAN DIAGRAM 3.

BEAMS.	USE.	COLUMN SPACING	REMARKS.
A-B, B-C, A_2-B_2, B_1-C_2, etc.	Carry outer walls only.	For dimension x see diagram 1a.	Lengths of Y_1 & Y_2 may differ, but for economy the longer should not be more than 120% of the shorter.
A_1-B_1, B_1-C_1, etc.	Stiffening purposes only.	Y_1 & Y_2 to be 10'. min., 5'.0". max., economical value from 14'.0" to 18'.0"	
A-A_2, B-B_2, etc.	To carry floor slabs only.		

④ BUILDINGS WITH FOUR ROWS OF COLUMNS.



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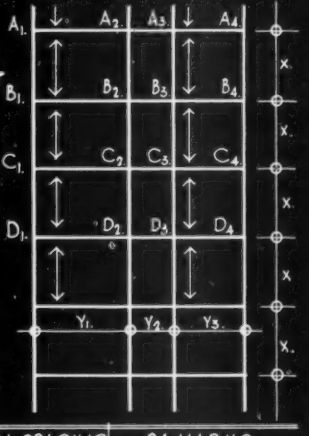

PLAN DIAGRAM 4.

BEAMS.	USE.	COLUMN SPACING	REMARKS.
A_1-B_1, A_4-B_4, etc.	To carry outer walls only.	For dimension x see diagram 1a. Y_1 & Y_3 to be 10'. min., 50'. max. Economical value of Y_1 & Y_3, 14'.to18', of Y_2 8'. to 10'. Economical proportion of Y_2 is from 0·125(Y_1+Y_3) to 0·6 (Y_1+Y_3).	This layout also lends itself to continuous beams, where $Y_1+Y_2+Y_3$ = 50'. The beams would consist of 2 channels as diag. 2. The longer of Y_1 & Y_3 should not be more than 120% of the shorter.
A_2-B_2, B_2-C_2 A_3-B_3, B_3-C_3 etc.	For stiffening purposes only.		
A_1-A_2, A_2-A_3 B_1-B_2, B_2-B_3 etc.	To carry floor slabs.		

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INFORMATION SHEET

• 737 •

STRUCTURAL STEELWORK

Subject : Economical framing, 1.

General :

This is the fourth of a series of Sheets on the subject of steel frame construction, and sets out four systems of framing, the direction of the floor spans being parallel to the long axis of the plan. Systems with floor spans parallel to the short axis of the plan are dealt with in the fifth Sheet of this series.

Economical framing :

While exact dimensions cannot be given for the most economical spans for all conditions, there are certain maxima and minima for different column arrangements which must be observed if economical construction is to be obtained. These maxima and minima apply to the construction of most multi-storey buildings such as blocks of flats, offices, industrial housing, etc., where fire-resisting floors, medium weight panel walls and normal window spacing are used. Unusual or uneven loading conditions, the use of massive masonry or other special construction may affect the figures in special cases.

In the notes referring to the diagrams on this Sheet, a distinction is made between the maximum and minimum spans and the economical spans. The maximum and minimum spans are intended to represent reasonable (not absolute) limits for normal building work ; the economical spans cover a much smaller range in which the amount of steel required in both beams and columns has been considered in relation to the labour-time involved in handling and erection.

The use of larger slab spans will reduce the number of columns, but increase the size of beams. It will increase the difficulties of hoisting, but will decrease the number of beam-column connections. Correspondingly, the use of smaller slab spans will increase the number of columns, but reduce the size of beams ; it will increase the amount but reduce the difficulty of hoisting and it will increase the number of beam-column connections.

Previous Sheets :

No. 729—Basic Steel Sections.
No. 733—Mechanics of Sections, 1.
No. 736—Mechanics of Sections, 2.

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887.

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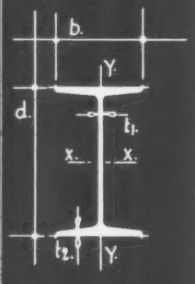
COMMERCIAL SIZES OF ALUMINIUM STRUCTURAL SECTIONS.
CONDENSED LISTS GIVING LOADINGS, PROPERTIES & DIMENSIONS OF I's & L's USED AS BEAMS.

FABRICATION : These sections are produced by extrusion and sections falling entirely within a circle of 12" diameter can be produced. Almost all of the alloys used develop their maximum physical properties after appropriate heat treatment.

MAXIMUM LENGTHS : Heat treated sections : 70 ft.
Other sections : Any lengths. Transport difficulties will generally determine the lengths of these sections.

TABLE 1: GIVING LOAD IN lb. PER FT. RUN ON WHOLE SPAN FOR SIMPLY SUPPORTED BEAMS.

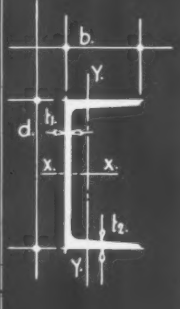
I-sections, Alloy : N.A.13 SQA.



SIZE. in ins.		STANDARD THICKNESS. in ins.		WT. PER FT.	MOMENTS of INERTIA.		SECTION MODULI.		RADII OF GYRATION.		SPAN IN FEET.*								
d.	b.	t_1	t_2	lb.	I_x	I_y	Z_x	Z_y	r_x	r_y	4.	5.	6.	7.	8.	9.	10.	11.	12.
3	1½	·20	·249	1·5	1·66	·13	1·11	·17	1·13	·33	370	190	110	•	•	•	•	•	•
3	3	·25	·332	3·2	3·81	1·25	2·54	·83	1·23	·70	850	430	250	160	100	•	•	•	•
4	1¾	·24	·239	2·1	3·66	·19	1·83	·21	1·58	·36	810	410	240	150	100	•	•	•	•
4	3	·30	·347	3·8	7·79	1·33	3·89	·88	1·63	·67	1720	880	510	320	210	150	110	•	•
4¾	1¾	·24	·325	2·6	6·73	·26	2·83	·30	1·88	·37	1500	760	440	280	180	130	•	•	•
5	3	·28	·376	4·3	13·68	1·45	5·47	·97	2·05	·67	3040	1550	910	560	380	260	190	140	110
5	4½	·36	·513	7·5	25·03	6·59	10·01	2·93	2·06	1·06	5550	2850	1650	1040	690	490	350	260	200
6	3	·29	·377	4·7	20·99	1·46	7·00	·97	2·44	·64	3950	2390	1380	870	580	410	290	220	170
6	4½	·43	·431	7·5	34·71	5·40	11·57	2·40	2·43	·96	6500	3950	2280	1440	960	680	490	370	280
6	5	·52	·520	9·6	43·69	9·10	14·56	3·64	2·44	1·11	8150	4960	2850	1810	1210	850	620	470	360
7	4	·375	·387	6·7	39·51	3·37	11·29	1·69	2·89	·84	6350	4060	2600	1640	1100	770	560	420	320

TABLE 2: GIVING LOAD IN lb. PER FT. RUN ON WHOLE SPAN FOR SIMPLY SUPPORTED BEAMS.

L-sections, Alloy : N.A.13 SQA.



SIZE. in ins.		STANDARD THICKNESS in ins.		WT. PER FT.	MOMENTS of INERTIA.		SECTION MODULI.		RADII OF GYRATION.		SPAN IN FEET.*								
d.	b.	t_1	t_2	lb.	I_x	I_y	Z_x	Z_y	r_x	r_y	4.	5.	6.	7.	8.	9.	10.	11.	12.
3	1½	·20	·28	1·64	1·82	·26	1·22	·26	1·16	·44	400	200	120	•	•	•	•	•	•
3	1½	·25	·28	1·82	1·94	·30	1·29	·28	1·14	·44	430	220	120	•	•	•	•	•	•
4	2	·24	·31	2·53	5·06	·70	2·53	·50	1·56	·58	1120	570	330	210	140	•	•	•	•
4	2	·30	·31	2·82	5·38	·79	2·69	·54	1·52	·58	1190	610	350	220	150	100	•	•	•
5	2½	·25	·38	3·64	11·87	1·64	4·75	·95	1·99	·74	2640	1360	780	490	320	230	160	120	•
5	2½	·31	·38	4·01	12·50	1·82	5·00	1·01	1·94	·74	2780	1420	820	520	350	240	170	130	100
6	3	·25	·38	4·42	21·27	2·83	7·09	1·34	2·41	·88	3980	2430	1400	880	590	410	300	220	170
6	3	·31	·38	4·86	22·35	3·10	7·45	1·42	2·36	·88	4190	2550	1470	930	620	430	310	230	180
6	3	·38	·48	5·88	26·28	3·70	8·76	1·77	2·33	·87	4940	3000	1740	1090	730	510	370	280	210
6	3	·43	·48	6·25	27·18	3·95	9·06	1·84	2·30	·88	5100	3100	1800	1130	760	530	380	290	220
6	3½	·28	·48	5·87	28·88	5·29	9·63	2·25	2·44	1·05	5410	3290	1900	1200	800	560	410	300	230
6	3½	·38	·48	6·60	30·68	6·05	10·23	2·43	2·37	1·05	5780	3500	2090	1280	850	600	430	320	250
7	3	·26	·42	5·07	32·75	3·26	9·36	1·53	2·80	·88	5260	3360	2160	1360	910	640	460	350	270
7	3	·38	·42	6·08	36·18	3·87	10·34	1·70	2·68	·88	5800	3710	2390	1510	1010	710	510	380	290
7	3½	·30	·50	6·50	42·83	5·83	12·24	2·42	2·82	1·04	6900	4410	2820	1780	1190	840	610	450	350
7	3½	·38	·50	7·19	45·12	6·48	12·89	2·58	2·76	1·05	7270	4659	2990	1880	1260	880	640	480	370

* The values above and to the right of the zig-zag lines are governed by considerations of deflection - the criterion being taken as a maximum deflection of 1/375 of the span. The values below and to the left of the zig-zag lines are determined by considerations of stress. Limits of shear stress do not govern any of the loads.

Information from the Northern Aluminium Company Limited.

INFORMATION SHEET : ALUMINIUM : N° 17, STRUCTURAL SECTIONS 1.
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INFORMATION SHEET

• 738 •

METALWORK

Subject : Aluminium Alloy Structural Sections, I

General :

This is the first of four Sheets listing the dimensions and loading of the commercial sizes of aluminium alloy structural sections, and deals with I beams and channels of regular section, used as beams.

Loading :

The tabulated values are loads in lb. per foot run, and the total load of any given span will be the tabulated load multiplied by that span. The values are for simply supported beams : for cantilevers and continuous beams, etc., they would have to be modified accordingly. It will be noted that considerations of deflection have determined most of the loads, and that these considerations will not necessarily govern loads for other conditions of end fixing, etc. Care should be taken to ensure that the values are not applied to beams carrying point loads.

Section Types :

Many of the sizes enumerated are obtainable from stock dies in several different flange and web thicknesses, with and without taper flanges. Other stock types are extruded with roots and toes square and not rounded. Others again have the heel, toe and other radii variously placed in relation to the front and back faces.

In addition to the regular sections shown, a wide range of irregular shapes are stocked in each of the two basic forms given. These non-standard sections can be extruded at slight extra cost to almost any degree of complexity. After extrusion, the shapes may be heat treated to develop their maximum structural characteristics. A full classification is given in the Noral Handbook, Section C.

Alloys :

The following alloys are among the most widely used for structural purposes :

	Ultimate Tensile Stress Tons/sq. in.		Elongation % on 2 in.	
	Min.	Average	Min.	Average
NA. 13SQA. ...	19	21	12	15
NA. 17ST. ...	25	27·5	15	20
NA. 26ST. ...	30	31	8	10

Certain other alloys, e.g. NA. 50S, NA. 51S, are not as strong as those listed above, but are suitable for light constructional members such as glazing bars, balustrades, handrails, etc.

Fabrication :

Any of the regular sections listed can be extruded, as can those of the irregular types which are not greater in cross sectional width than 12 in.

Uses :

Aluminium structural sections are very suitable for use as exposed members. Their use, however, is normally restricted to decorative features such as shopfronts and fascias, balconies, porches, hoods, staircases, and lift enclosures, vent and grillework, exposed trusses and laylights, stands, showcases and metal trim generally. Smaller sections are particularly adaptable to temporary or movable structures, and to the equipment of amusement centres, pleasure resorts, fairs, etc. The larger sections are particularly suited to situations where it is desired to retain decorative metalwork with adequate structural strength.

Physical Properties :

For particulars of strength, resistance to corrosion, fire, etc., relationships to other metals, cutting, drilling, punching, riveting, etc., see Sheet "Structural Sections, 2." If information is required regarding other physical or chemical properties of these or other sections, reference should be made to the Company.

Insulation :

When aluminium is used in contact with such metals as copper, brass, bronze, iron, steel and lead, electrolytic corrosion of the aluminium occurs in the presence of moisture unless proper insulation is interposed to break the electrical contact, or prevent the access of moisture. Heavy coating with bituminous paint is a suitable method. Drainage from copper, bronze, or nickel surfaces over aluminium, causing galvanic action, must also be avoided, and this may be done by using other forms of aluminium instead of these metals.

In addition, precautions should be taken against galvanic corrosion, if aluminium alloys of widely different composition are used.

If fixings other than of aluminium are used, direct contact must be prevented by a coating of red lead or a lead chromate primer followed by two coats of aluminium paint. An alternative to paint coatings when contacts are only occasional is the use of thin fibre. Similar precautions should be taken wherever the ends of aluminium structural members are built into materials containing cement or lime.

Previous Sheets :

Previous Sheets of this series are :—

No. 492 : Sheet, plate and coil sizes (No. 1).
501 : Working, joining and bending (No. 2)
504 : Basic and special extruded shapes (No. 3)
505 : Typical extruded sections (No. 4)
510 : Typical extruded sections (No. 5)
661 : Casement window sections (No. 6)
669 : Window spandrels and cills (No. 7)
673 : Handrails and railings (No. 8)
680 : Aluminium paint (No. 9)
686 : Cast and extruded grilles (No. 10)
714 : External pier casings (No. 11)
717 : Aluminium wall facings (No. 12)
723 : Aluminium wall facings (No. 13)
726 : Aluminium canopies (No. 14)
731 : Aluminium doors (No. 15)
734 : Doorframes and Thresholds (No. 16).

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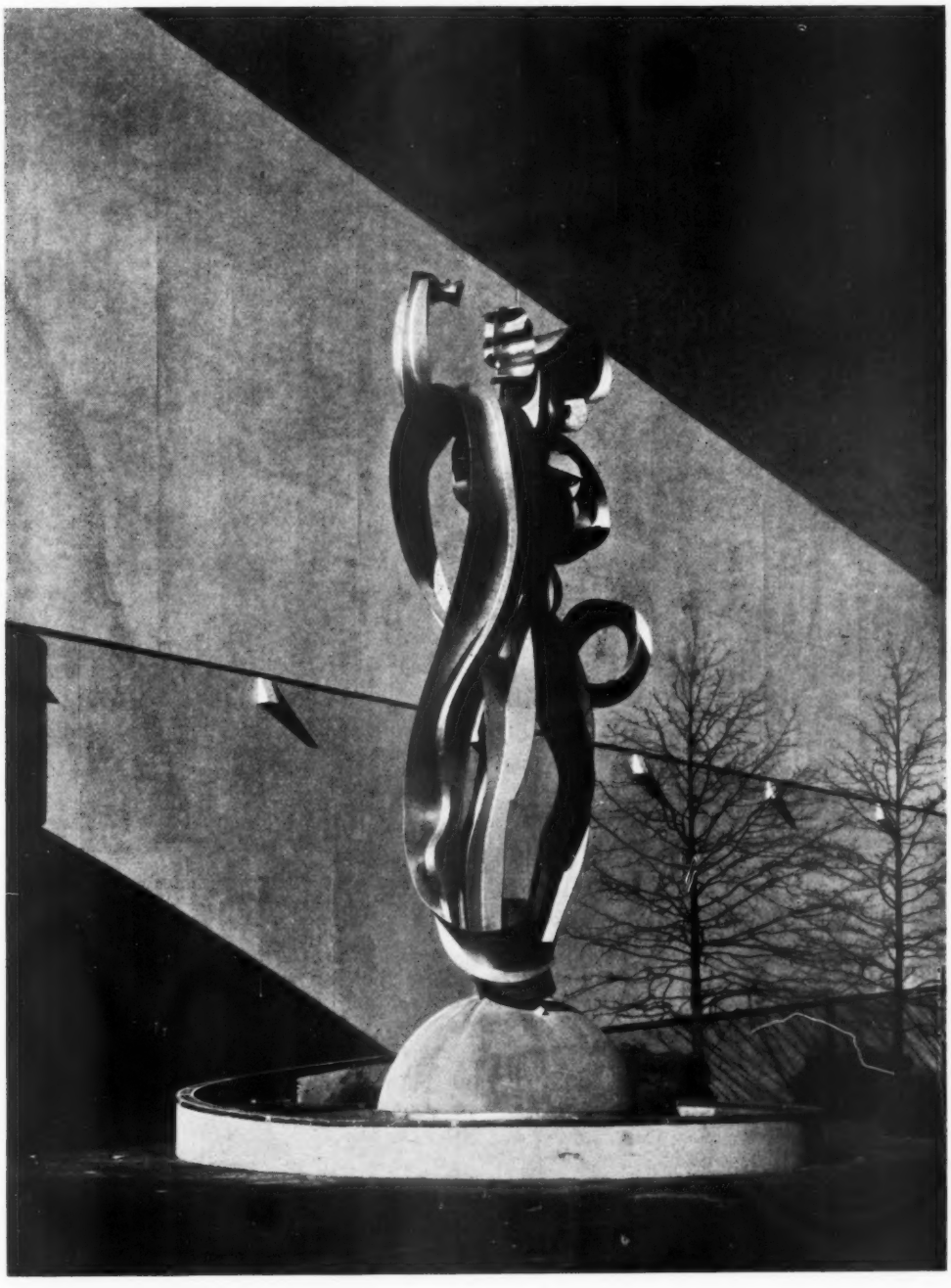
WORLD'S FAIR



Mr. John Gloag, who has been broadcasting on the World's Fair from New York for the B.B.C., has been specially commissioned to make a general review of it for this Journal. His article follows. We hope to deal with the British Pavilion in greater detail later. Above, sculpture in steel, by Robert Foster, symbolizing textiles ("Reeling and writhing and fainting in coils").

D

Constitution Mall. Statues of the Four Freedoms. A close-up of the statue shown on the extreme right of the above photograph appears on the facing page. The shadow on the Perisphere is that of the Trylon.

EVER SINCE BARNUM

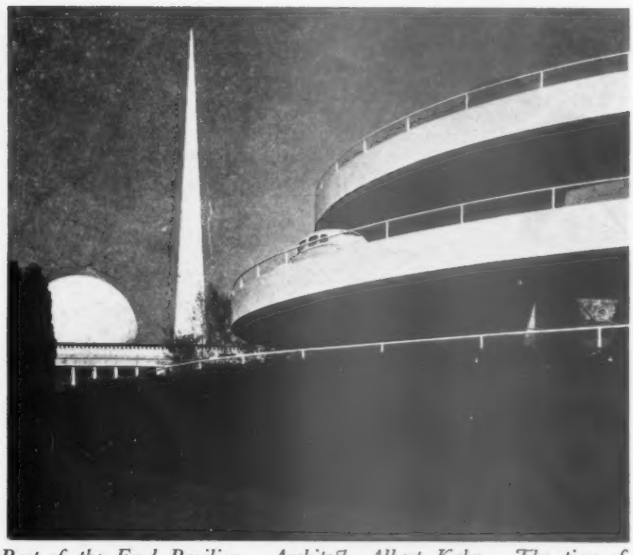
[*BY JOHN GLOAG*]

EVER since Barnum put on the "Greatest Show on Earth," showmen in the U.S.A. have been emulating him. "Bigger and better" has become a national slogan, and although the pale young highbrow of Bloomsbury and the hirsute intellectual of Hampstead may feel in their frost-bitten hearts that this slogan is a contradiction in terms, the New York World's Fair might make them want to eat their dark-hued puddle hats—those hats which are supposed, by some dabblers in psychology, to indicate Fascist tendencies, but which may only symbolize rebellion against the harder-headed world. Certainly the New York World's Fair is bigger; and, in a surprisingly large number of ways, it's better, too. Bigger than what? Than most ideas conceived in the old world. Better than what? Better than the Chicago World's Fair of 1933–34; better than Wembley 1923–24; better than Paris 1925 or Paris 1937; better than the British Empire Exhibition at Glasgow in 1938—better than Brussels in 1935; better, in fact, than any exhibition of this large, ambitious kind that I've ever seen.

One or two intellectuals (English of the semi-Marx type) have suggested to me rather bleakly that the stimulating air of New York has gone to my head and destroyed or at least vitiated my few remaining critical faculties. How, they asked, have I approached the Fair? There seemed to be only one reply to that sort of a fool question, so I said: "For a dime from the Pennsylvania Station—you get there in ten minutes—"

This Fair has been planned as a permanent park for the City of New York. Its radiating avenues are already shaded by trees that have been growing for three years. Its buildings are nearly all examples of showmanship; and it is well named a Fair. It was created by a Board of Design which was appointed by the Directors of the Fair Corporation. With commendable insight, those directors recognized their own inability for the job of designing, and they left the Board of Design with a free hand.

Under the chairmanship of an architect, Stephen F. Voorhees, the Board consisted of three other architects: Robert D. Kohn, R. H. Shreve and W. A. Delano; a landscape architect, Gilmore D. Clark; an engineer, Jay Downer; and an industrial designer, Walter Dorwin Teague. They were a good team. They selected painters, architects and sculptors for the official buildings. They controlled the layout, colour and scale of the Fair. No member of the Design Board was



Part of the Ford Pavilion. Architect, Albert Kahn. The tiers of roadway take cars on test, and along these white ways a continuous stream of coloured cars flows. Our old pals of the Theme Center appear in the background.

allowed to do any official building. As Mr. Robert D. Kohn said, when he explained the working of the Board to me: "We didn't want any prima donnas in the way of buildings: you're apt to get them if the official architects are looking after particular buildings."

He then met some of the criticisms I'd heard:

"This is not a Beaux Arts plan," he said. "It's no such thing. The ways are located to be the main avenues of a future park." The whole layout was submitted to the Commissioner of Parks for New York City in September, 1936; and it's part of the general development plan for Flushing Meadows Park.

The Board of Design made their plan, and then organized a competition. They didn't want the official buildings to be farmed out to a gang of architects who'd made a name for themselves: they wanted youth, all fresh and flaming. Said Mr. Kohn: "Maybe it was unusual, but we decided to promote a competition open to all registered architects practising within 100 miles of New York City. We asked them to submit designs for a fair building: not a building that we intended to erect, but something that would give us a line up on talent."

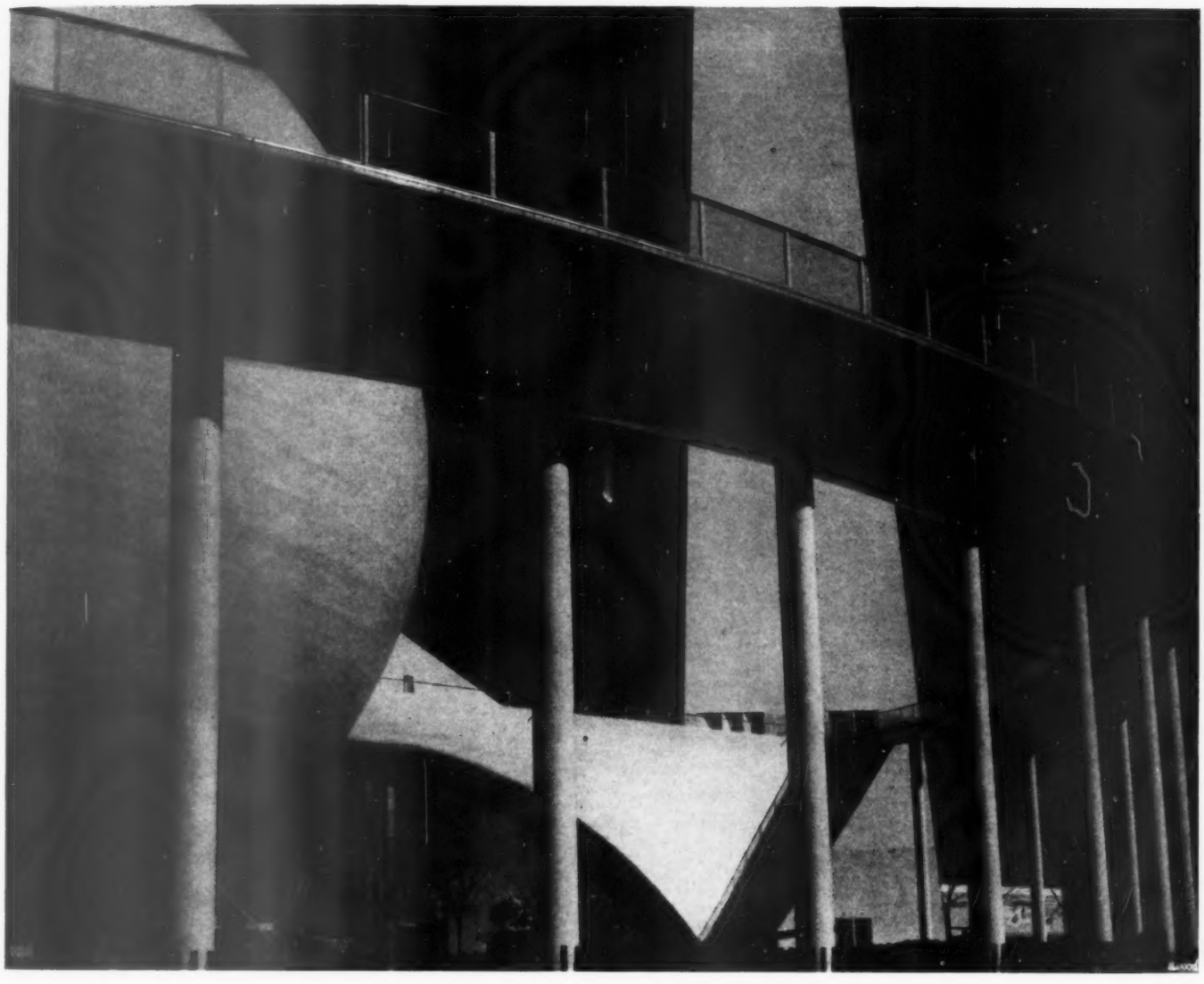
He added that they could take a chance on young men with no experience coming in on this, for the construction staff of the Fair would build the buildings, so the selected architects would be relieved of all that tiresome responsibility and the Board of Design would know that everything would stand up for the duration of the show. (This frank attitude opens up almost as many vistas about the future of the architect's responsibility as there are in the Fair grounds!)

They got 360 entries for the competition. There were 3 prizes and 21 honourable mentions. They employed most of those people (about 20 of them), and two-thirds of them were unknown men. Every school of thought in architecture and the arts was to be represented. Despite the diversity of outlook, but because perhaps of the Board's resolve to keep the show in scale, "a certain unity has come out of the whole." As Mr. Kohn remarked, "it has the freshness of youth."

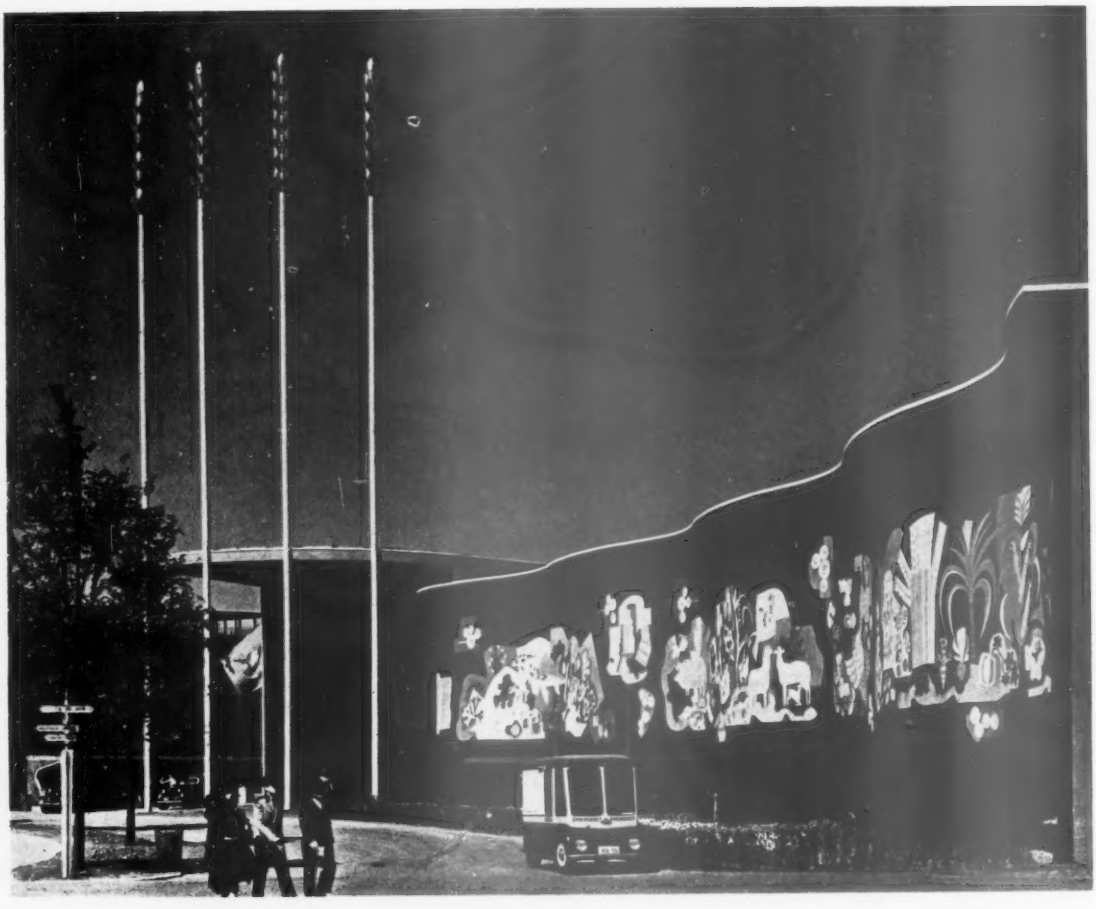
An architect of the old school said of the Fair: "This is impressive, but then there isn't any architecture here." To which Mr. Kohn replied: "Swell! That's the finest thing that's been said about the Fair."

The Board, exercising their control of scale, wanted to keep everything on the ground floor. In most of the commercial buildings, escalators take visitors to higher levels; but the official and national pavilions are easy on the feet. The Board kept a tight hand on colourists: the Theme Center of the show, the 700 foot high Trylon, and the Perisphere, are white; and the buildings that surround them are white, too; but as you get away from the centre the buildings acquire colour; in definite sections they shade into blue, red, yellow and so forth. But the pale-hued walls of many buildings are enriched with murals of surprising vigour; and there is much sculpture in relief. On the pavilions to the north-east of the Theme Center, the reliefs project on metal prongs from the wall

The Theme Center. The Trylon is 700 ft. high; the Perisphere measures 200 ft. in diameter; the Helicline is a 1,000-ft. spiral ramp; and you cannot get away from the Theme Center wherever you go in the Exhibition.



A close-up of the Theme Center. It is described as a symbol of man's aspiration to attain "the happier way of living in the world of tomorrow." Exactly how these shapes are going to help this aspiration is not explained; but crowds pour through the Perisphere looking down on a fine model of the City of Tomorrow. The pathway which sweeps around the Perisphere is called the Helicline; you can only walk down it, otherwise the name might lead to some quite natural mispronunciation. The architects of the Theme Center are: Andre Fouilhoux and Wallace K. Harrison.



The Food Pavilion.

Avenue of Communications. On the left is part of the Radio Corporation Pavilion.

A detail of the Food Pavilion.

surface, and have lights behind them, so that by night they become gold-edged silhouettes.

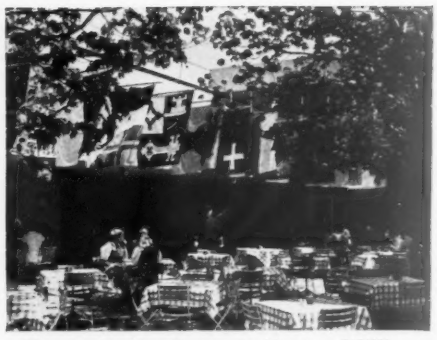
There are some murals and figures that have been described to me as "daring." There is a lot of "reeling and writhing and fainting in coils," for only the Mock Turtle's description fits the strenuous and exhausting originality of some of the sculpture. It bewilders people and makes them nervous.*

I wanted to know how the Board of Design had got away with all this vicarious virility in painting and sculpture. Mr. Kohn explained the set-up. The Fair Directors appointed a committee of seven to sit with the Board of Design. They had fortnightly meetings, and the Board submitted their finished proposals, drawings, models and other specimens, and explained them to the committee, who passed them on behalf of the Directors, and *never went back on their recommendations*. Sometimes a little difficulty arose. There was a piece of abstract painting, with a central theme that looked like a fiddle. Abstract painting is always tough to explain; and the Directors kicked about this example. "What," they asked, with a petulant show of crude commonsense, "does it *mean?*"

Mr. Walter Dorwin Teague wrote a memorandum running to several pages to explain the significance of abstract painting. The Directors were impressed, but still didn't like to accept the responsibility of sponsoring the incomprehensible. They asked the Board of Design to appoint someone to explain in person, and Mr. Robert D. Kohn happened to be the only member of the Board available when the demand came. So he addressed the Directors: "Gentlemen," he said, "what difference does it make to anybody *what* it means?"

This plain question was perhaps a relief after the memorandum on abstract

* Overheard: "I like that ever so much—I hope to God it's good!"



The Swiss Pavilion. Architects: William Lescaze and J. R. Weber.

The General Motors Building.

The Waterfall in the Electrical Utility section.

Home Furnishing Building. Architect: Dwight James Baum.

painting, and the assembly of bankers, manufacturers, and presidents of corporations—a hard-headed, but fair-minded lot, those Directors—said: "O.K."

The painting went through, and purely as a matter of academic interest, Mr. Kohn asked the artist what the central theme that looked like a fiddle was intended to symbolize. "That," explained the artist, "represents the sun shining on a sheaf of wheat."

This incident illustrates the amicable working arrangements for producing the Fair and guaranteeing the free hand to creative minds. Some critics have said that with the superb machinery for getting things done that existed, the Fair ought to have been much better. Well, critics are like that; and the Fair is good. It's gay; it's exciting; it's showmanship of the first order; and, unlike some exhibitions that most of us can recall, it's open, and nearly all finished.*

Now the Fair has started off with the local patriotism of one of the largest and most stimulating cities in the world to back it up. New York wanted to *show* not only the World, but a much more critical audience: the United States—they wanted to show what could be done. The City embarked upon propaganda which affected all kinds of unlikely things. For example, the number plate of every car in New York State this year bears the words: NEW YORK WORLD'S FAIR.

(Sidelight: The morticians—undertakers to English readers—in New York State objected: they said an advertisement for a Fair on a hearse was not only inappropriate but irreverent.)

The theme centre, the Trylon and Perisphere, pop up everywhere. Every window display includes models of them. They are on stamps, socks, shoes, butter pats, handkerchiefs, hotel notepaper, soap, taxi-cabs, plates, glasses, cups, fruit and candy labels—even the microphone into which crooners pour their souls at the Starlight Roof of the Waldorf-Astoria displays these ubiquitous shapes. Every taxi-driver asks you if you've seen the Fair: every elevator man, barber, cashier, waiter, every operator in every shoe-shine parlour asks, too—everybody who does a job in New York is part of a big conspiracy to put over the World's Fair to strangers and to each other. The Long Island Railroad has built a special station in the Fair Grounds and runs non-stop trains from the Pennsylvania Station to the Fair every ten minutes. The new station is a light and pleasant design in blue and silver. It cost over $1,000,000.†

So much for the background of organization and enthusiasm against which the Fair was created. The Fair itself is well planned. You can find your way about in it: you can see your objectives and reach them—but it takes time, for the distances are deceitfully long. From the theme center avenues radiate, and the main one, leading north-east, has the U.S.A. Federal Building at the far end. This main avenue is called Constitution Mall, and it leads to the Lagoon of Nations, and beyond that lies the Court of Peace.

The National Pavilions have a family resemblance. They are mostly built in the international style—which is the unsatisfactory, colourless child of functionalism—and the only pavilion which expresses its own nationality with any vigour and in distinctive terms is the Japanese building. There is still a living tradition of architecture in Japan.

The Russian Pavilion dominates the Fair by its monstrous height, and the dull silver figure of the worker holding a red star that crowns it can be seen from every part of the grounds. Its exterior recalls contemporary German architecture, and I found a strong resemblance between this pavilion and the new Chancellory in Berlin.

The Italian Pavilion is tall and white and cool, and has a waterfall descending from the top over a series of steps. It is intended to symbolize the vast hydro-electric power of Italy.*

On the top of the Italian Pavilion, the figure of what appears to be Britannia acts as a guide to the British Pavilion, which is next door. Actually the lady is labelled ITALIA on the front and ROMA on the back.

There's more than a touch of the 1937 Paris Exhibition about many of the European exhibits. You feel that old stuff has been used up; but the vast, almost agricultural beards of Marx and Engels are missing from the interior of the Russian Pavilion.

Our own exhibit is by far the best we have ever had at any international show. There are 2½ acres of floor space. 25 per cent. of that space is claimed by exhibits. 75 per cent. is left free for people to circulate and to have plenty of room to see our show. An American friend of mine expressed a view about the British Pavilion: he did not so much express a view as make a pronouncement in that endearing way Americans have. "Sir," he said, "it's got ages of History back of it, but it's full of young ideas."

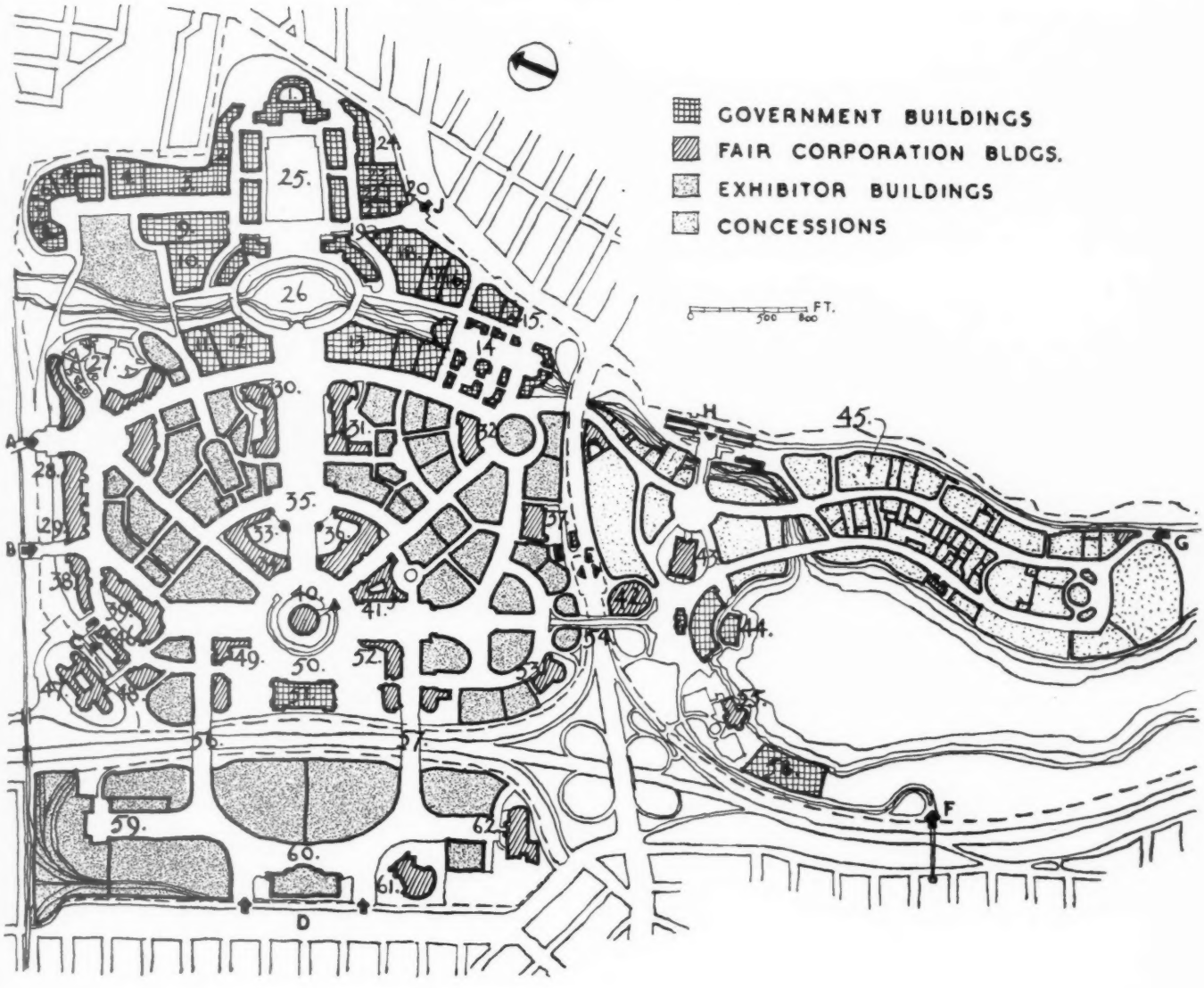
It is, too; and it was a sincere compliment. The Pavilion is dedicated to "Lasting Peace and Friendship between the people of the United States of America and the British Empire."

The majority of visitors to it come to see certain definite things. First of all, Magna Carta, and secondly, the replicas of the crown jewels. Then the display catches them and they find themselves looking at things like the exhibit of the

* All the official notepaper of the Fair Administration bears on the bottom of the sheet in large capitals, the phrase: TIME TEARS ON.

† Every enterprise here always cost over a million dollars.

* Overheard: "All the stuff they can grind out in Italy wouldn't provide enough power to light the State of New York!"



NEW YORK WORLD'S FAIR, 1939

Mercantile Marine, a great map of the world in copper on glass, which shows with small models the position of every ocean-going vessel flying the British flag on one particular day of last year. This shipping swarms over the seven seas, and a more comprehensive demonstration of our supremacy as a maritime nation would be difficult to imagine.

The interior of our pavilion shows historical background. It shows, too, the solid plinth of ability upon which English workmanship rests; it traces the rise of democracy; it demonstrates our understanding of and solutions to social problems, and our whole approach to the business of life.*

* Overheard: Two American ladies, after they had passed through it; "How lovely—they do know how to live!"

KEY

1 : Federal Government
2 : Switzerland
3 : Netherlands
4 : Poland
5 : Venezuela
6 : Portugal
7 : League of Nations
8 : Chile
9 : Italy
10 : Great Britain
11 : Brazil
12 : France
13 : Belgium
14 : Court of States
15 : U.S.S.R. Pole Expedition
16 : Japan
17 : Czechoslovakia
18 : U.S.S.R.
19 : Roumania
20 : Eire
21 : Norway
22 : Argentine
23 : Canada
24 : Pan-American Wing
25 : Court of Peace
26 : Lagoon of Nations
27 : To-morrow Town
28 : Special Events
29 : Hall of Fashion
30 : Food (North)
31 : Food Centre
32 : Food (South)
33 : Science and Education
34 : Medicine and Public Health
35 : Washington Square
36 : Consumers
37 : Hall of Industrial Science
38 : Operations
39 : Communications
40 : Theme—Perisphere and Trylon
41 : Metals
42 : Treasury
43 : Hall of Music
44 : N.Y. State Amphitheatre
45 : Fun Fair
46 : Post Office
47 : Administration
48 : Press
49 : Business Systems
50 : City Hall Square
51 : New York City
52 : Hall of Pharmacy
53 : Operations
54 : Empire State Bridge
55 : Terrace Club
56 : Bridge of Wheels
57 : Bridge of Wings
58 : Florida
59 : Court of Railways
60 : Avenue of Transportation
61 : Aviation
62 : Marine

ENTRANCES

A : I.R.T.—B.M.T. Subway Gate
B : L.I.R.R. Gate
C : Administration Gate
D : Corona Gate (North and South)
E : World's Fair Boulevard Gate (North and South)
F : Fountain Lake Gate
G : South Gate
H : Independent Subway Gate
J : Flushing Gate

E

Externally, the British Pavilion is simple, almost bleak, and many Americans have said that it contributes real dignity to the Fair.

To attempt any detailed description of the Fair and its buildings would demand thousands of words, and about a quarter of a century for inspecting everything. But three main impressions emerge :

1. The National Pavilions all illustrate the world-wide growth of propaganda for national virtues—or, shall we say, what the different nations would like other nations to accept as their virtues.

2. The commercial exhibits constitute a more vigorous demonstration of the vitality of contemporary American life than the State and Federal exhibits.

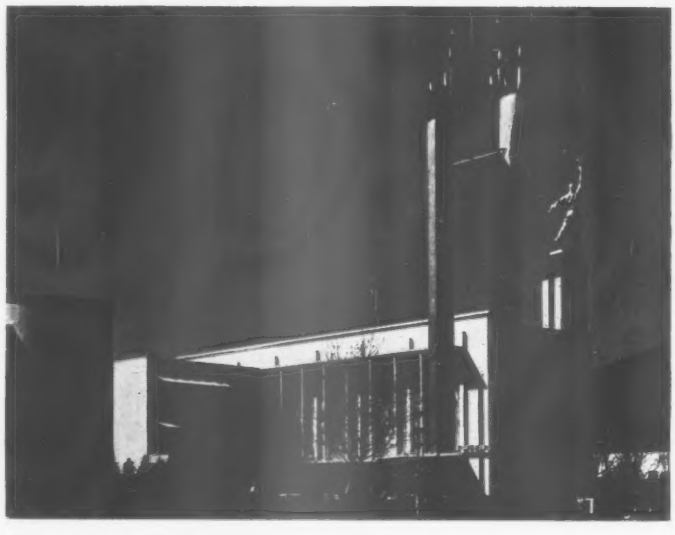
3. The art and business of showmanship expressed in terms of display, illumination, working models, broadcast lectures and directions, and charts, two and three dimensional, has attained a new high level.

There is an intense preoccupation with the future : the Street of tomorrow —the City of tomorrow : but turn from this hopeful stuff to the State pavilions and you will find that "unborn tomorrow" is haunted by "dead yesterday." Everybody agrees that the most wonderful civilization is just round the corner—but there are barriers all over the place. Still, this exhibition must make thousands and thousands of people dissatisfied with their homes, their cities, their traffic, and the general layout of their environment. The "City of Tomorrow" inside the Perisphere is a magnificent model—suggesting the "Broadacres" of Frank Lloyd Wright, or Le Corbusier's "City of Tomorrow." But in all the exhibits created by those "that after a tomorrow stare," there is an atmosphere of fatigue : modernism is just a little tired. It needs a fresh injection of genius.

It might have got it, had Frank Lloyd Wright or somebody like him (is there anybody ?) created something in this Fair. Meanwhile visitors are reassured by stunts which are undeniably impressive. For instance, the National Cash Register building has revolving on its top a huge replica of a Cash Register, which records for all to see the number of visitors in the Fair : the Aviation Building looks like an aeroplane hangar : the Marine Building pushes forward a couple of prows ("a prowline façade, sir !"), and displays a boat deck, a lake, and a mast 150 feet high : and the railway section shows the vast progress that has been made in the design of locomotives and rolling-stock. (The Coronation Scot, although dwarfed, is the sleekest and best-looking of them all.)

In the U.S.A. Federal Government building American designers show that they know where to stop with decoration. The State Dining Room and the State Reception Room (where the King and Queen were received during their visit to the Fair) are finely proportioned

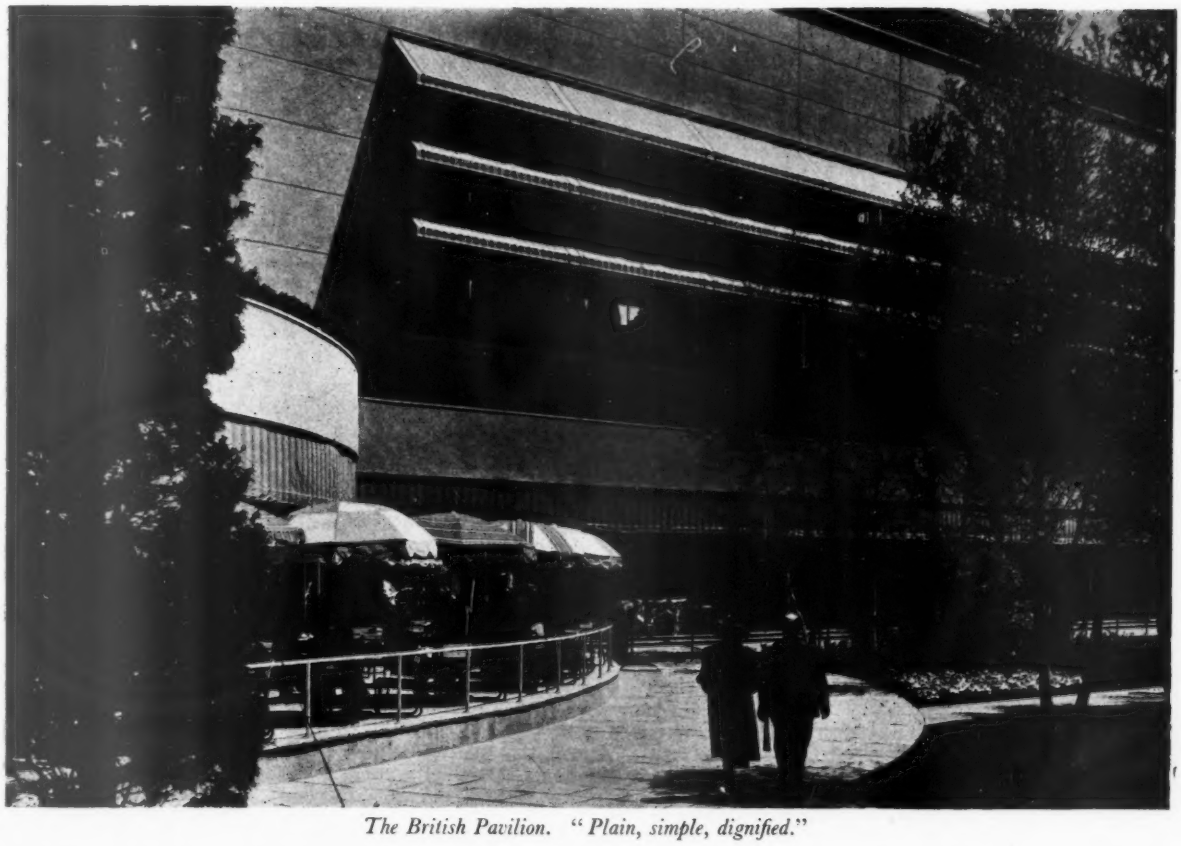
The British Pavilion. Architects : Stanley Hall, John Easton, Howard Robertson and Harold Barrett.



The Argentina Pavilion. Architect: Armando d'Ans. Consulting Architect, Aymar Embury

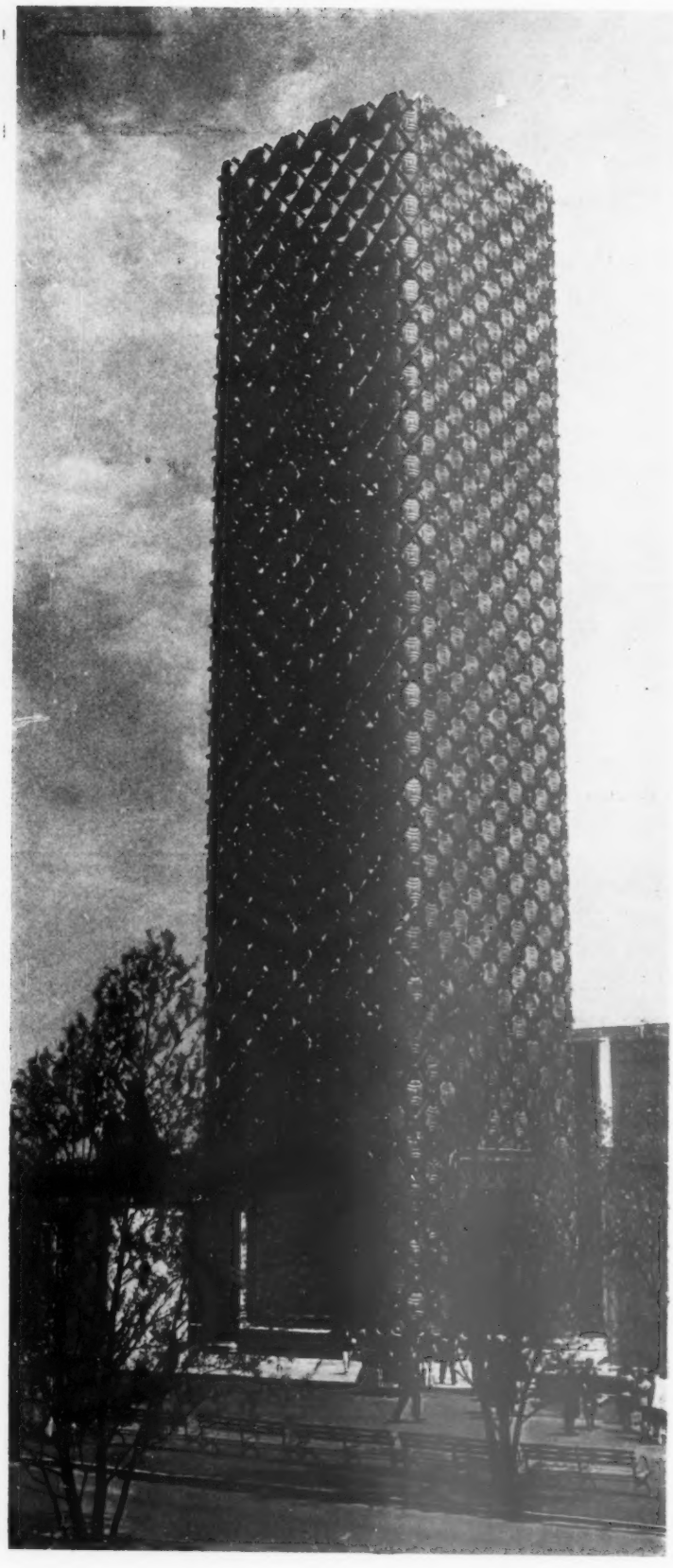
The Brazilian Pavilion. Architect: A. L. Costa.

The Belgian Pavilion. Architects : Van de Velde Stynen and Bourgeois.



The British Pavilion. "Plain, simple, dignified."

The United States of Brazil puts its best foot forward, and encourages visitors to do the same, for you have to climb into this pavilion, which is cool and spacious, and gives the impression of floating.



The Polish Pavilion. This has a distinctive tower, 150 ft. of gilded metal lattice-work. Architects : Jan Cybulski and Jan Galinowski.

Facing page : An entrance and base of the tower of the Polish Pavilion.

and furnished and decorated from designs by Walter D. Teague.

The State Dining Room has woodwork of pale pinkish-yellow maple, with some restrained embellishment in gold : a new Empire style. The walls are parchment colour. The State Reception Room is 40 ft. high and has walls of pale grey and white. The steel mullions of the great windows, which soar up for 35 ft., are left plain, but are gilded. The room is dominated by two busts, one of Lincoln by Gutzon Borglum. It is a beautiful work and you see it when you enter the room, because it is at the far end, and that calm, sad countenance of Lincoln seems to follow you wherever you go. When you turn around you see that over the doorway there is a bust of Washington, by James Earle Fraser.

The public rooms of the Federal Building are thronged with display devices which present detailed information with great compactness and in a form that is highly memorable.

The old-fashioned moving panorama has been revived, and takes the form of moving murals ; only these mural paintings travel slowly downwards on a vertical path on different parts of the walls : so that they become, as it were, animated pilasters. There are dioramas that are different from most, because they move and they show changes—one, for instance, shows the replacement of old tenement buildings by Federal Housing schemes : the old slum property suddenly sinks through the floor of the diorama, disclosing the brave new architectural world that has replaced it.

I have described these interiors in the Federal building in some detail, for they suggest that under the guidance of industrial designers of the calibre of Walter D. Teague a new form of national taste in decoration is developing ; something that is as human as the Colonial tradition, but with an original flavour.

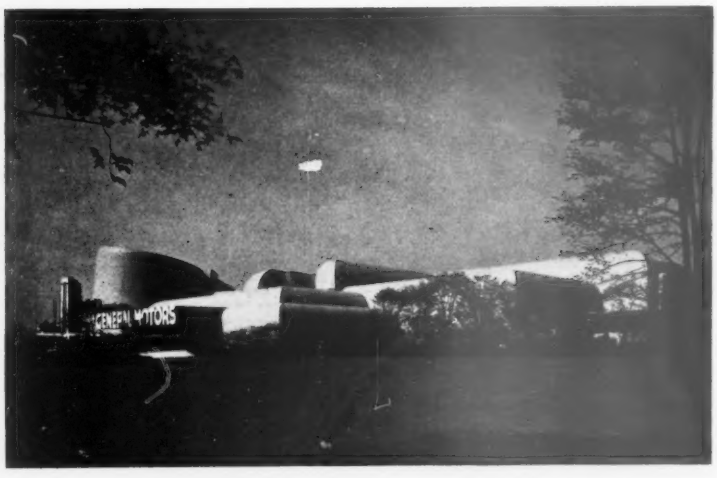
Meanwhile the New York World's Fair tells the world that America has absorbed all the discordant elements that trouble Europe. The State exhibits by the diversity of their architecture illustrate the great differences in character that exist in the various States ; but these States live and let live in amity—and it is not too H. G. Wellsian to assume that the 48 States of the Union represent the blue print of a World State. It is a relief, too, to see how well a great business community can be light-hearted. The oppressive earnestness that haunted the commercial exhibits in the Chicago World's Fair of 1934 is absent : industry has gone gay—all the oppressive earnestness that's going is monopolized by the exhibits of the European Nations. America, thank Heaven, takes her liberties and her national life for granted : she doesn't have to explain that she is a land of splendid enterprise—the New York World's Fair does that for her.


POLAN
CHILE

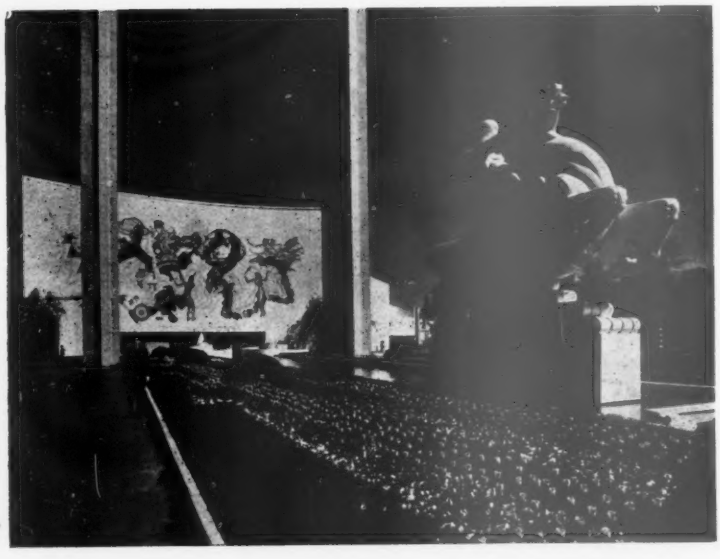
The Street of Tomorrow, by Norman Bel Geddes. Just a corner of it. Part of the Perisphere and the Trylon can be seen in the background. The effort to be slick, sleek, streamlined and smart is somewhat of a strain, but there are some interesting features including elevated pavements for pedestrians which solve once for all the Belisha business.

The American Eagle outside the U.S.A. Federal Building would make a good mate for the lions outside the British Pavilion. The rather stiff technique is the same. The eagles and the groups of sculpture were designed by Harry Poole Camden.

The Court of States. This is the rear façade of the Court, showing one of the entrances, with the dome of Georgia rising above it. Architects of the Court of States are : York and Sawyer, Egerton and Swartwout, Fred K. King, J. K. Smith, and L. W. White. Facing page : Sundial, Perisphere and Trylon.



It suggests the dear old Crystal Palace, but it's actually the General Motors pavilion ; these white shapes flow into each other, and manage to look like a park of whitewashed airships, but very cool and pleasant withal. (Photo : F. S. Lincoln.)

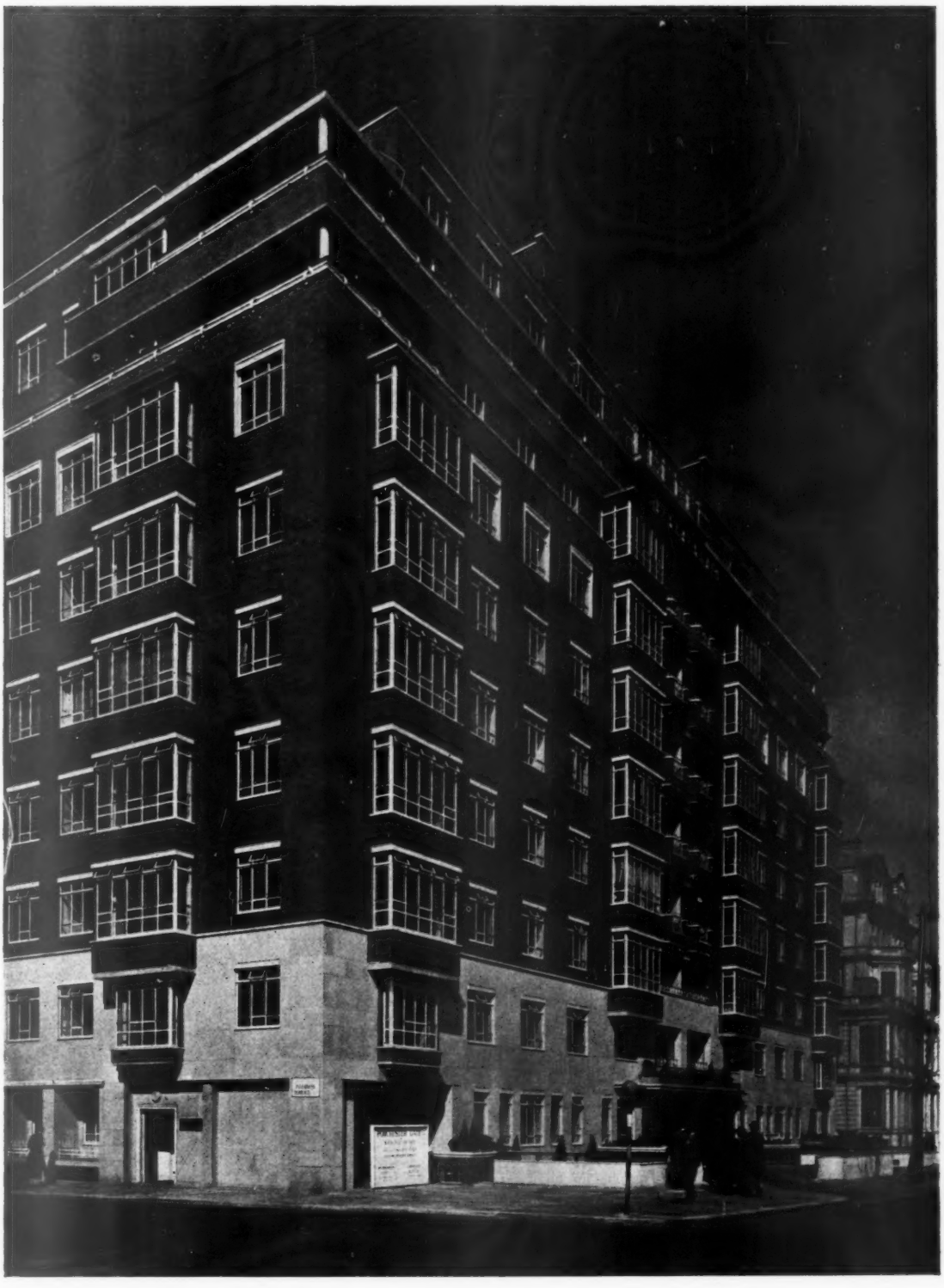


The Building Materials Building

The Communications Building

FLATS, PORCHESTER GATE, W.

DESIGNED BY HOWARD LEICESTER AND PARTNERS



PROBLEM — *This building was erected to provide flats of varying accommodation, the smallest being two bedrooms and living-room and the largest two reception and six bedrooms. The scheme was also designed to include a garage in the basement for tenants' cars. Since the original plans were prepared a space has been allocated in the basement for an A.R.P. shelter. The clients' desire was for a maximum economic development of the site, but no sacrifice of light to the apartments at the rear.*

SITE — *The site is bounded by Inverness Terrace on the west, Queenborough Terrace on the east, and Bayswater Road on the south.*

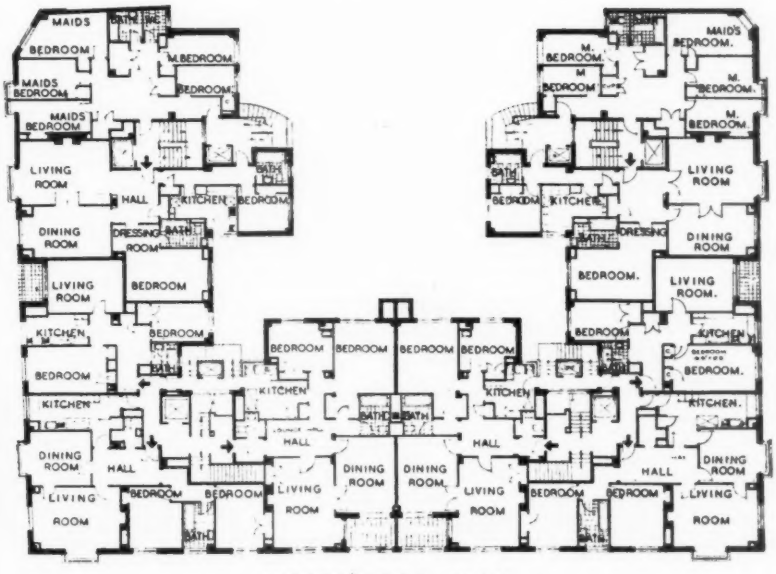
Above, the main front (right) and part of the Inverness Terrace façade.

CONSTRUCTION—*Steel framed with hollow tile floors. Walls are 9-in. brickwork, ½-in. rough waterproof rendered on the back, and then faced with 2½-in. hollow partition block. Staircases are in reinforced concrete. Internal walls are 3-in. hollow T.C. blocks. Walls between flats are two-skin 3-in. block walls with 1-in. cavity, into which a ½-in. properly lapped wallboard is placed as a sound insulation. The flooring battens are bedded on thick insulating felt and held down by struts until the screed between battens has set sufficiently to hold them down. Floors in principal rooms are strip oak and deal elsewhere, for close carpeting. Mass concrete bases were substituted for the R.C. bases as, at the time, difficulty was experienced in obtaining supplies of rods in a reasonable time.*

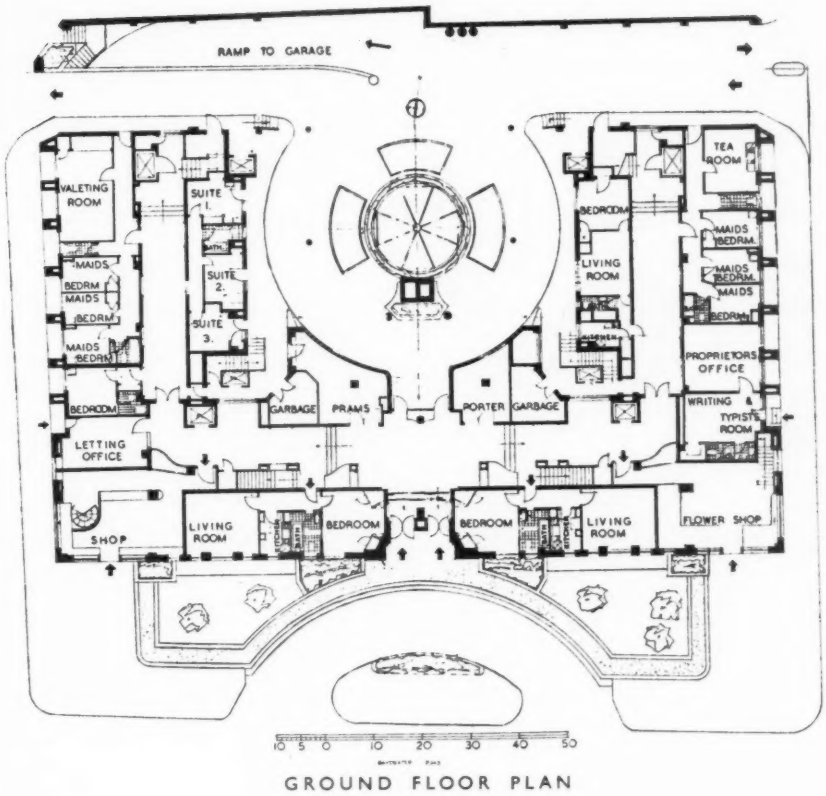
EXTERNAL FINISHES—*The clients' wishes were for a façade which, while being designed to suit the functions of the rooms behind, would be of pleasing materials. The flats on the seventh and eighth floors have large terraces on the corners, which help to impart a lightness to the upper massing of the block. The windows are steel, painted cream colour, and the wrought-iron decorative panels to the balcony railings are also painted cream colour. All window heads to the three elevations have recessed channels, with a hinged sheet steel cover forming a permanent recess for blinds to be fitted by tenants. Artificial stone is used as plain ashlaring and as coping to walls and flower-boxes.*

Above, a view from Kensington Gardens ; left, the main entrance.

FLATS, PORCHESTER GATE, W. • BY HOWARD LEICESTER AND PARTNERS



FIRST FLOOR PLAN

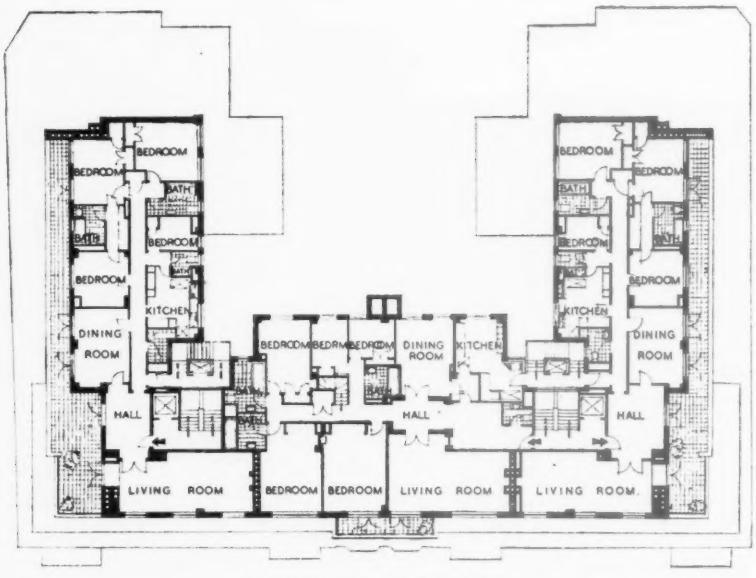


GROUND FLOOR PLAN

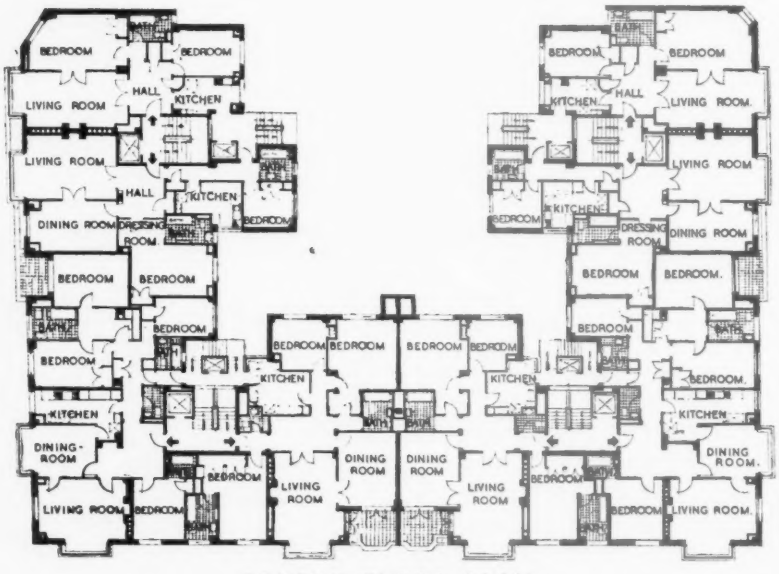
PLAN—*The plan shape follows the lines of the adjoining streets and has a large central courtyard reached from the side streets. The architects were desirous of planning the block so that each flat had a good view of Kensington Gardens from at least one window. All flats, therefore, have a large bay window which projects sufficiently far to obtain a good view. It was also desired that "carpet space" or corridor area should be cut down to a minimum in the flats. Four passenger staircases and lifts were planned and linked at ground level only. In practically all flats living-rooms and dining-rooms are* en suite *and have double doors between. To the centre front flats a terrace about 7 ft. wide and 10 ft. long gives interesting vistas from dining-room and living-room. Terraces are provided to some of the upper flats. Many of the bedrooms have small dressing-rooms which give access to the bathroom, and these rooms are fitted with hanging cupboards lined with gaboon mahogany. Entrance halls to flats were planned of a size and shape which would permit of a furnished "living" space.*

Top, the entrance hall; centre, a typical living-room; bottom, a typical kitchen.

FLATS, PORCHESTER GATE, W. • BY HOWARD LEICESTER AND PARTNERS



NINTH FLOOR PLAN

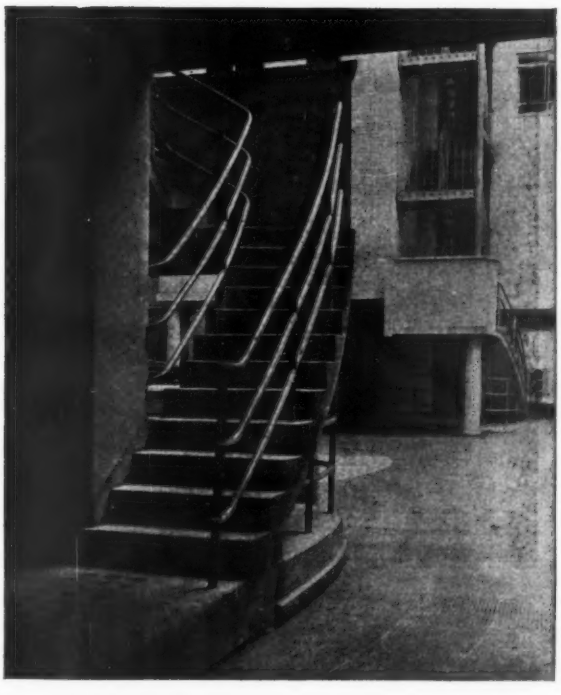


FOURTH FLOOR PLAN

INTERNAL FINISHES.—*The public spaces on the ground floor are treated in stone paint and are relieved by wrought-iron grilles to radiator recesses. The carpet is a deep crimson colour, and the walls are stone colour. Joinery is in walnut with a slightly waxed finish. The fibrous plaster ceiling is slightly coffered and is finished off-white. Staircase walls are finished buff colour in a lightly textured plastic paint. The staircase is screeded and carpeted deep crimson colour. All principal rooms to flats have plaster cornices and windows have pelmet boxes. Bathrooms are floored in rubber and have vitrolite bath panels and a 9-in. high lining along top of bath. Kitchens are floored in lino and have built-in fittings cellulosed in white. The lift cars are panelled in walnut to a height of 5 ft. 6 in. Above this the walls are panelled in white leather, and lighting is from troughs above, all light being reflected from the leather panels.*

Right, a staircase.

FLATS, PORCHESTER GATE, W. • BY HOWARD LEICESTER AND PARTNERS

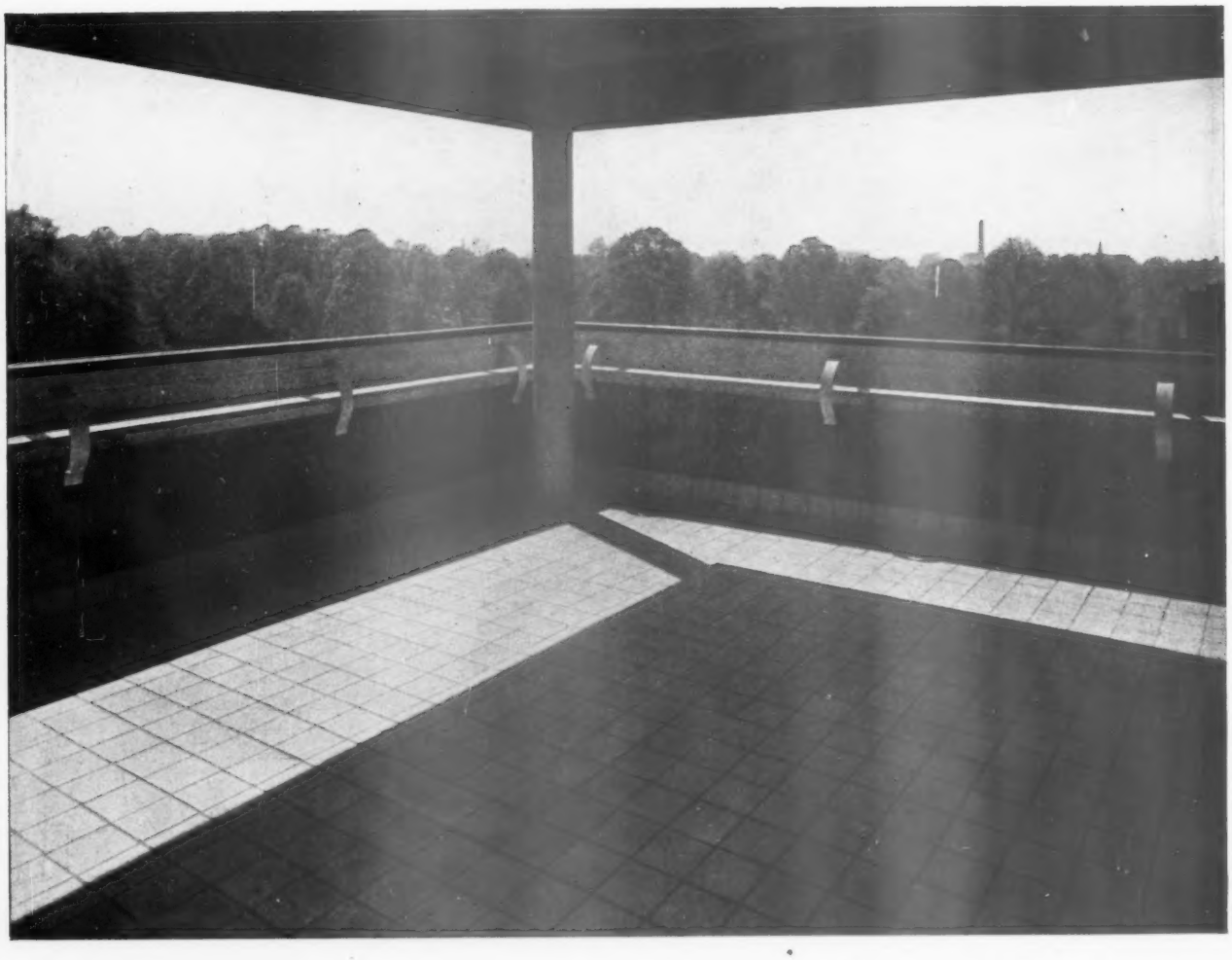


SERVICES—*Lifts are self-levelling down collective automatic lifts of 200 ft. per minute. The service lifts are 100 ft. per minute automatic lifts. The heating is low pressure with radiator distribution and the boilers are three magazine-type boilers, thermostatically controlled.*

All heating and plumbing services are run in ducts and ample access doors provided. The plumbing is one pipe system with welded copper wastes. The majority of the living-rooms have coal fires.

Above, the entrance to the garage ; right, a view in the internal courtyard.

FLATS, PORCHESTER GATE, W. • BY HOWARD LEICESTER AND PARTNERS



Top, a roof terrace: left, a typical balcony.

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Contractors and Sub-Contractors

(pages 1051-1056). The general contractors were Demolition and Construction Co., Ltd., who were also responsible for the demolition and joinery. Sub-contractors and suppliers included: Highways Construction, Ltd., asphalt; W. T. Lamb and Sons, bricks; Atlas Stone Co., Ltd., artificial stone; Horsley Bridge and Thomas Piggott, structural steel; Diespeker & Co., Ltd., fireproof construction; Ramsdens (London), Ltd., and Camden Tile and Mosaic Co., Ltd., tiles; J. H. Sankey & Son, Ltd., partitions; Aygee, Ltd., glass; Hills Patent Glazing Co., Ltd., patent glazing; Arthur Scull and Son, Ltd., central heating and ventilation; W. N. Froy and Sons, Ltd., grates; Gas Light and Coke Co., gas fixtures and gasfitting; Hewitt Boilers, Ltd., boilers; Colston Electrical Co., Ltd., electric wiring and electric light fixtures, electric heating, and bells; John Bolding and Sons, Ltd., sanitary fittings; Craigpark Electric Cable Co., cables; Baldwins (Birmingham), Ltd., door furniture; Williams and Williams, Ltd., casements; G.P.O., telephones; F. A. Norris & Co., Ltd., folding gates and iron staircases; W. A. Telling and Sons, plaster and decorative plaster; Garton and Thorne, Ltd., metalwork; P. H. Barker and Son, Ltd., joinery; Palorit Paints, Ltd., artificial stone paint; John Stubbs (Marble and Quarzite), Ltd., marble; Pyrotenax, Ltd., lift wiring cable installation; Anti-Static, Ltd., radio; Fromow of Chiswick, shrubs and trees; Allensor, Ltd., special fitted cupboards; Marryatt and Scott, lifts; Metropolitan Water Board, water supply; Tett Bros., Ltd., water-softening plant; Holroyd (Glassware and Lighting), Ltd., lighting fittings; Clark Hunt & Co., Ltd., tubular railings; Greens, kitchen fittings; Automatic Sprinklers Co., Ltd., sprinklers; Bull Super Silent Motors by Bull Motors (Branch of E. R. & F. Turner Ltd.).