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Vol. XCI

March 1942

No. 543

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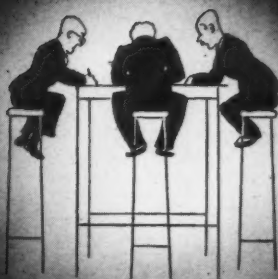
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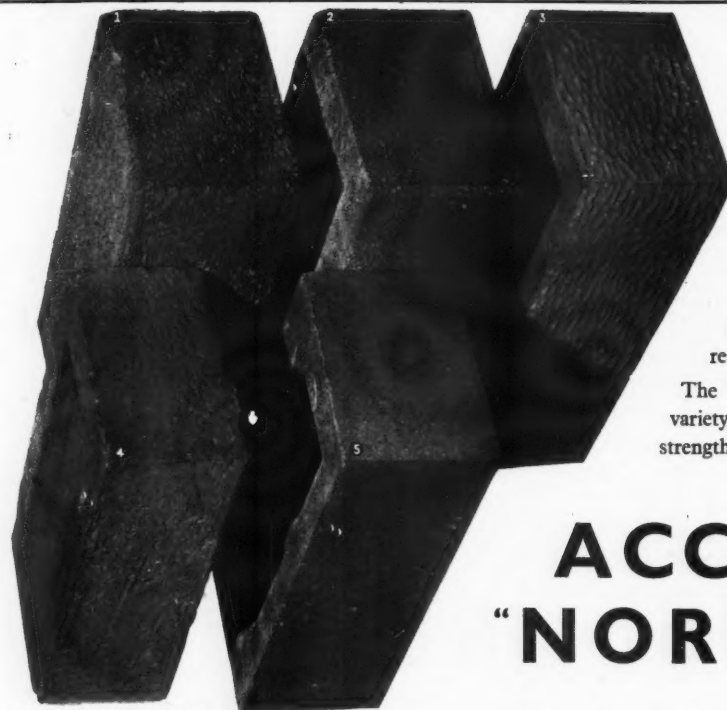
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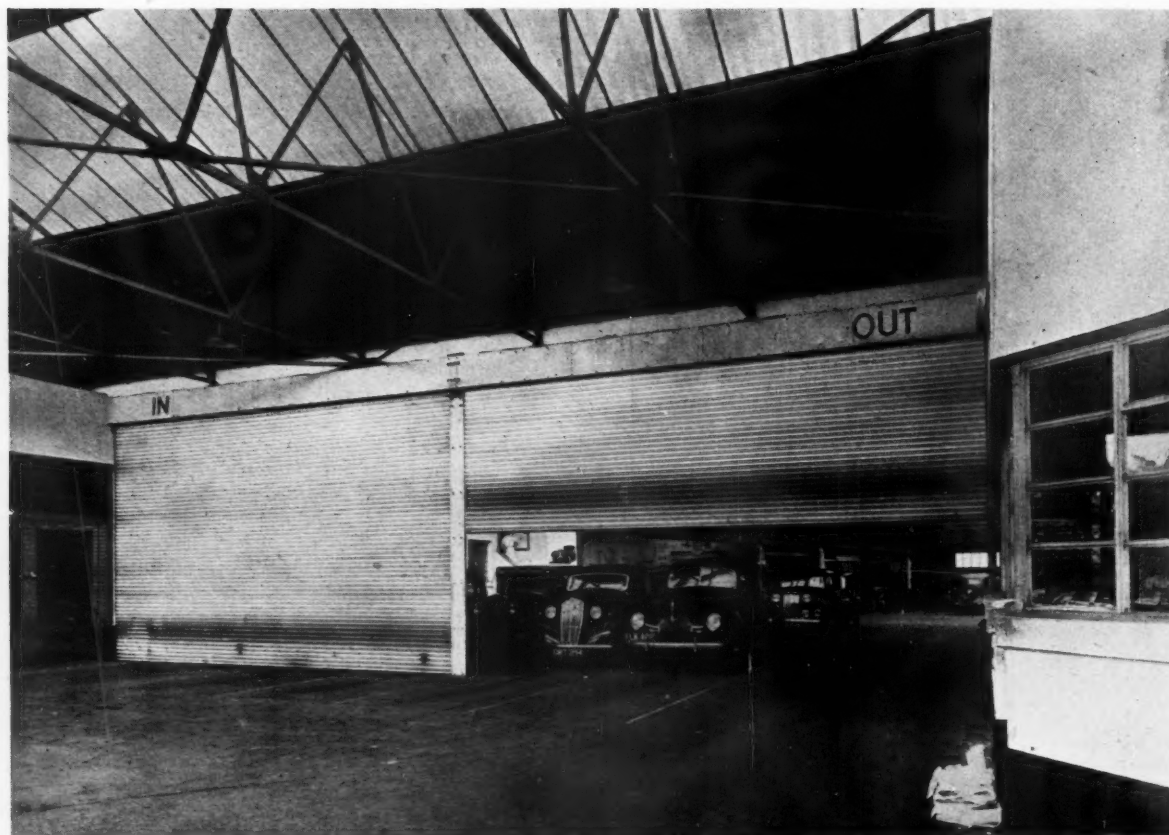
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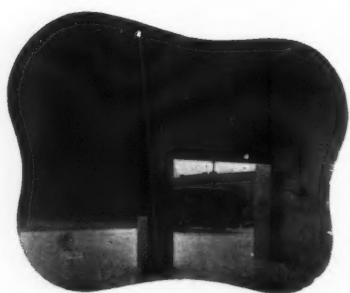
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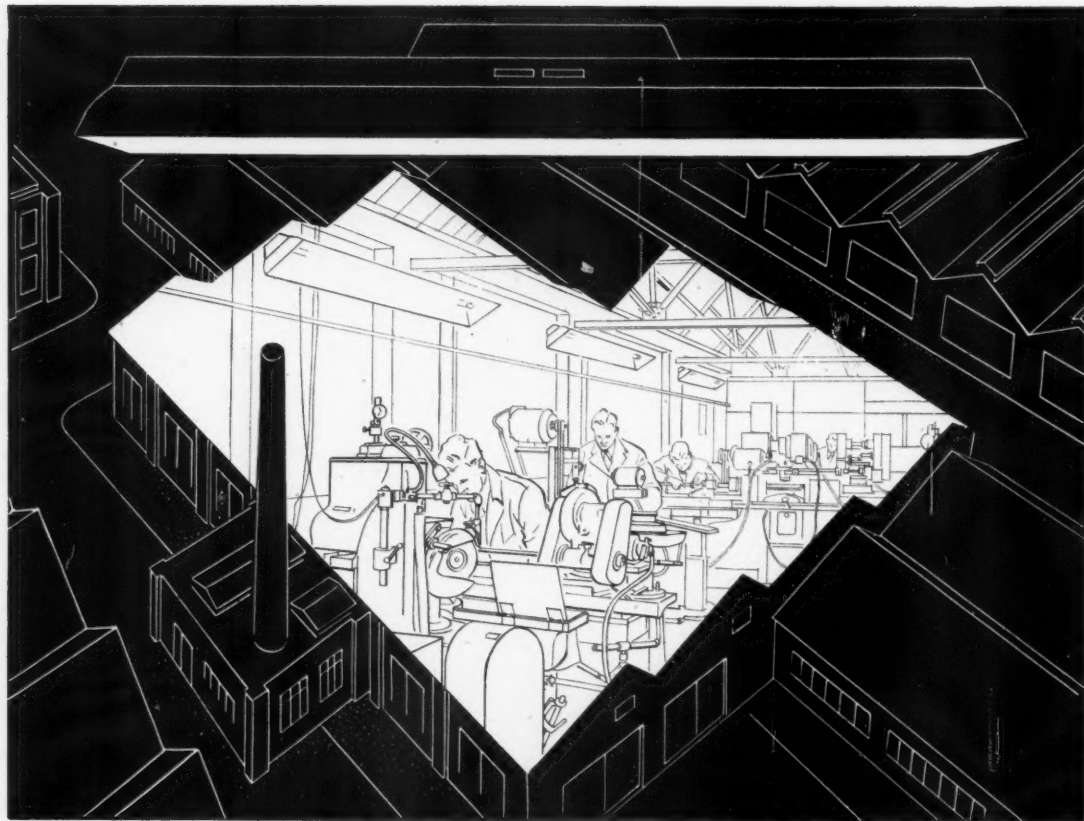
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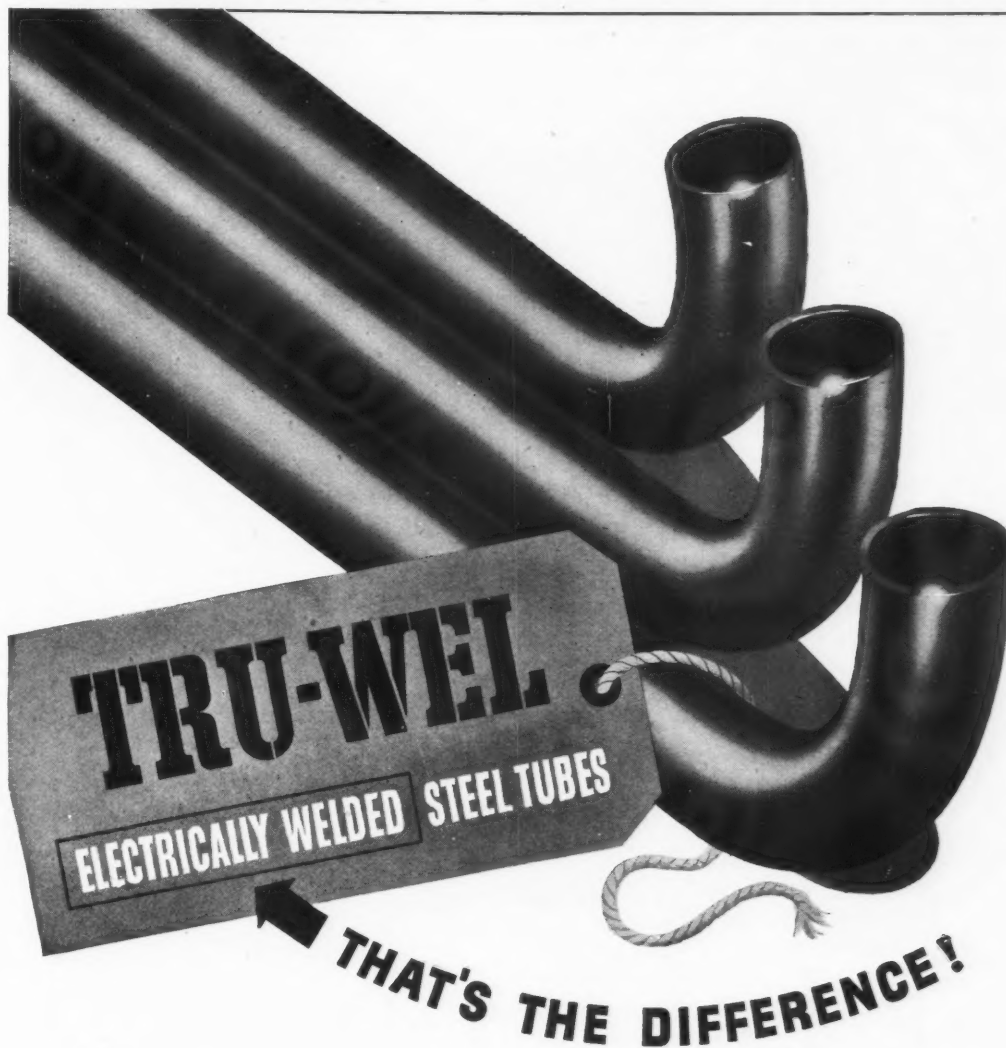


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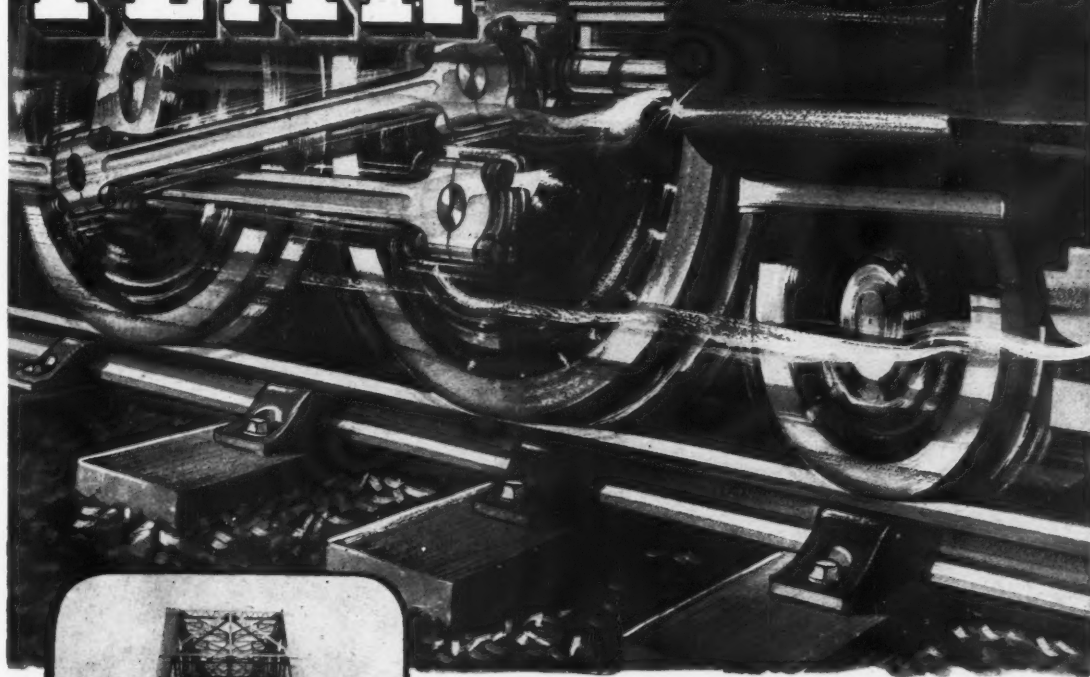
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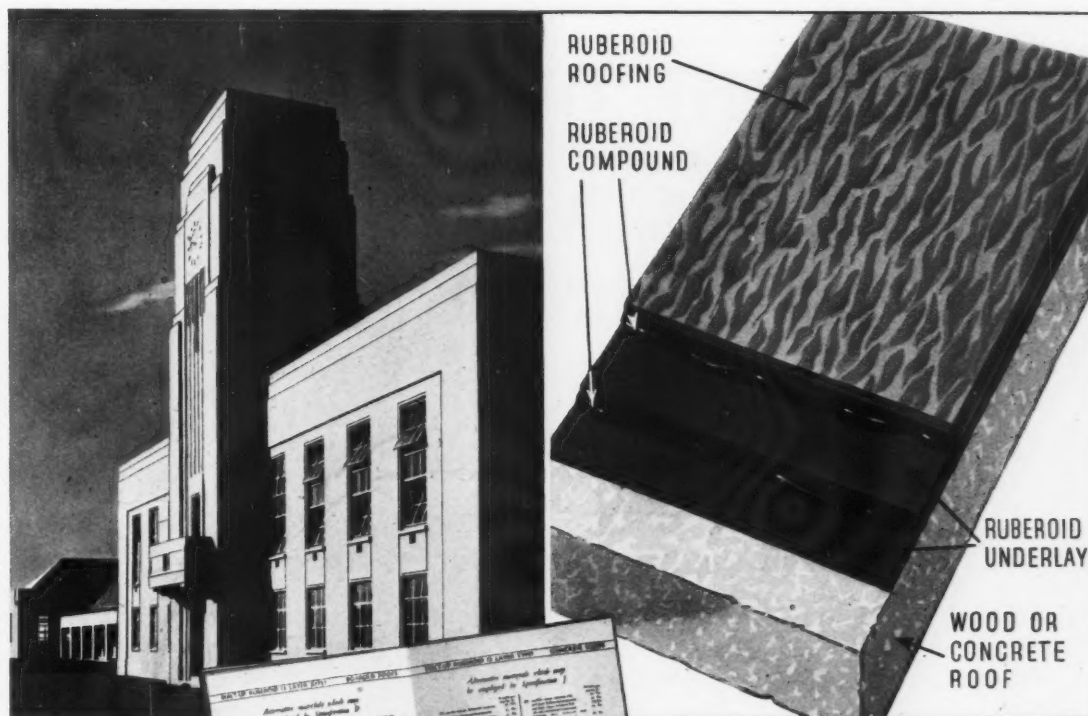


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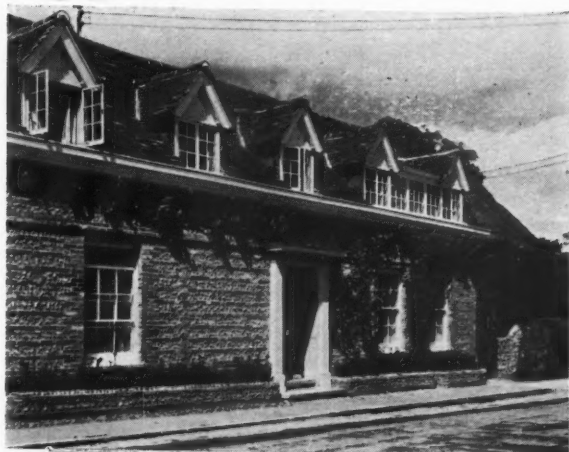
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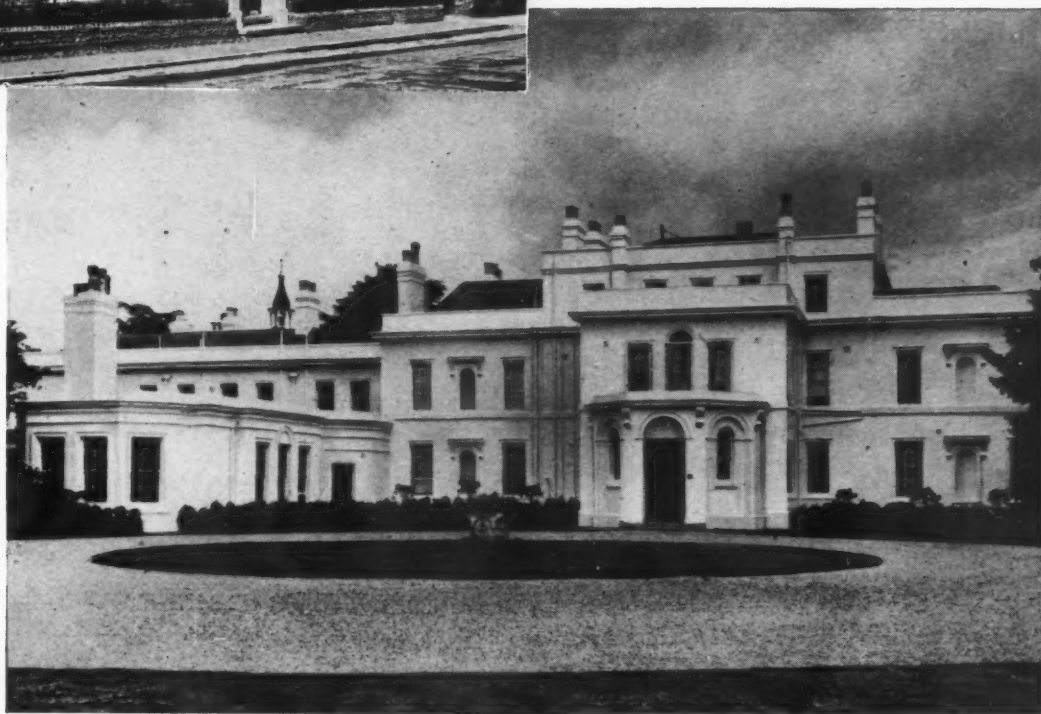
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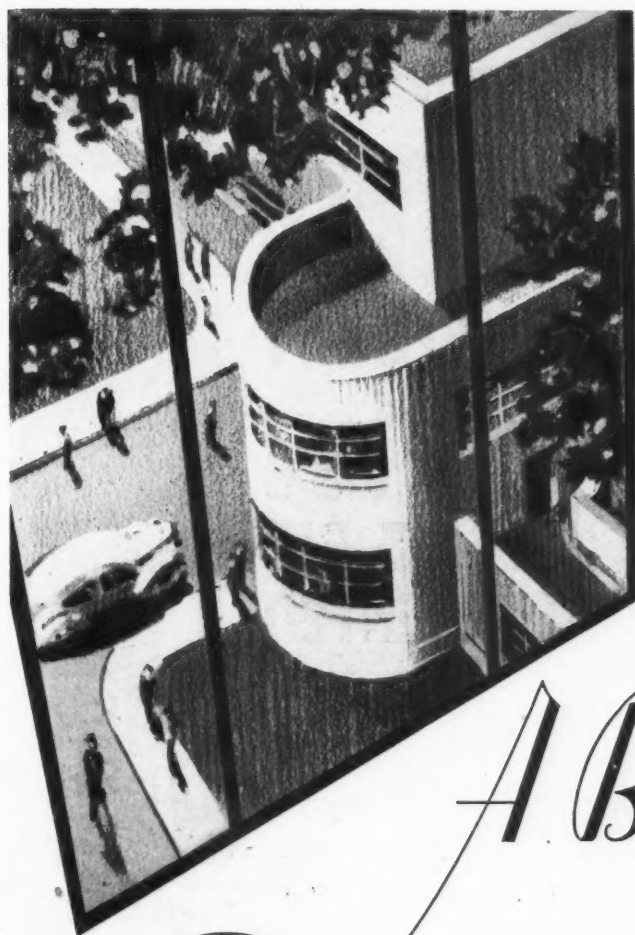
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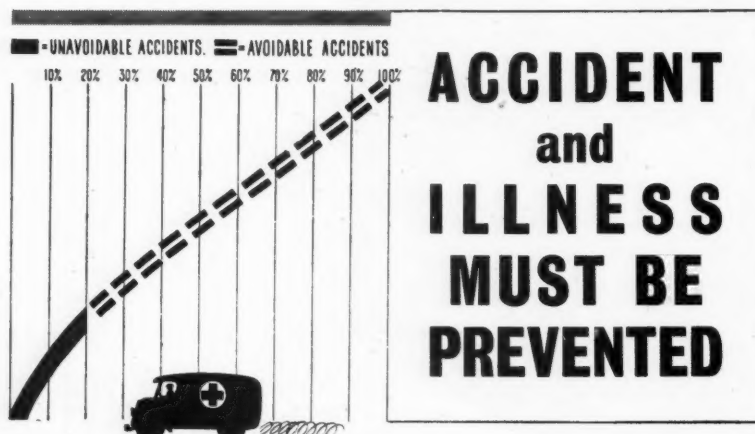
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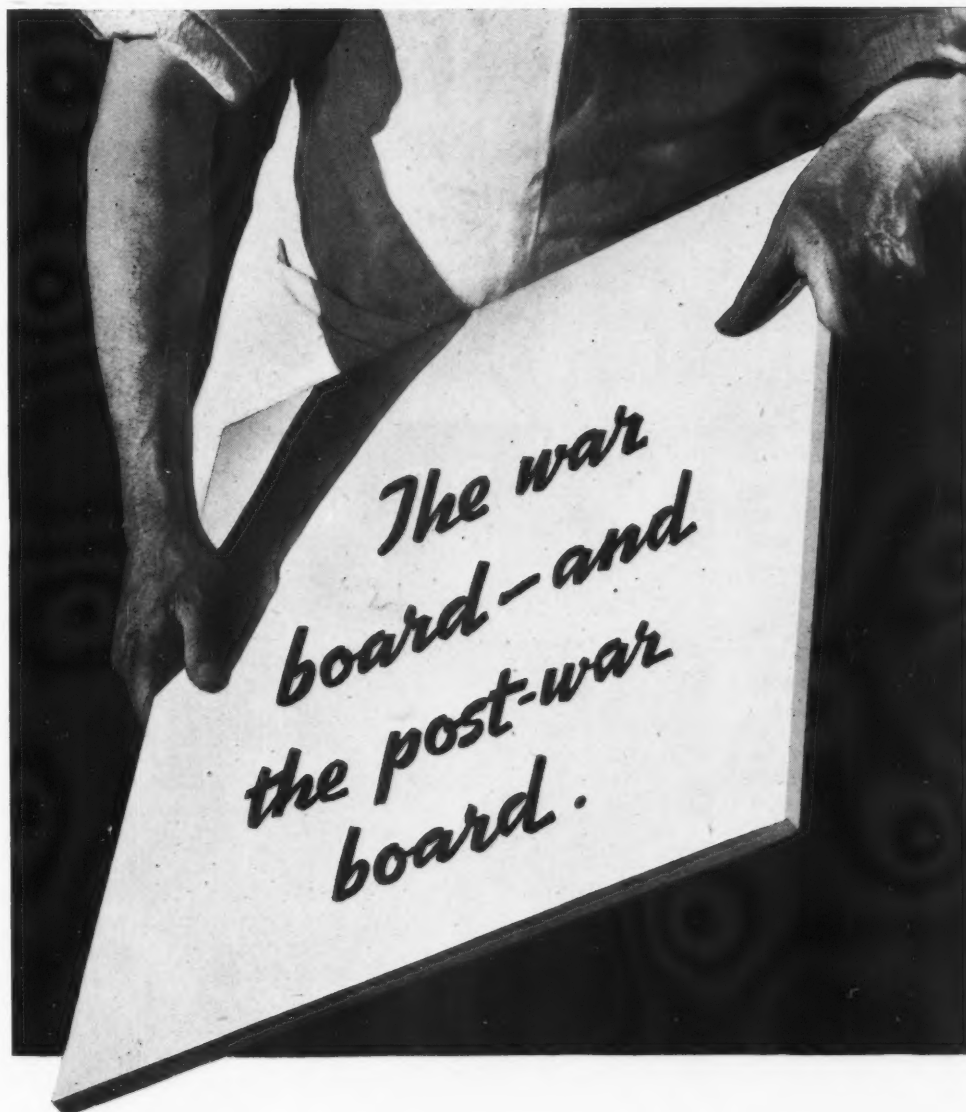
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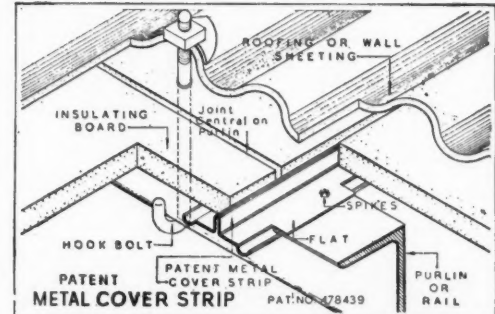
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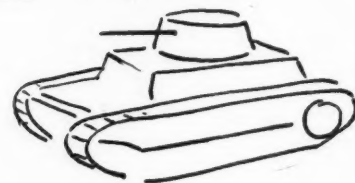


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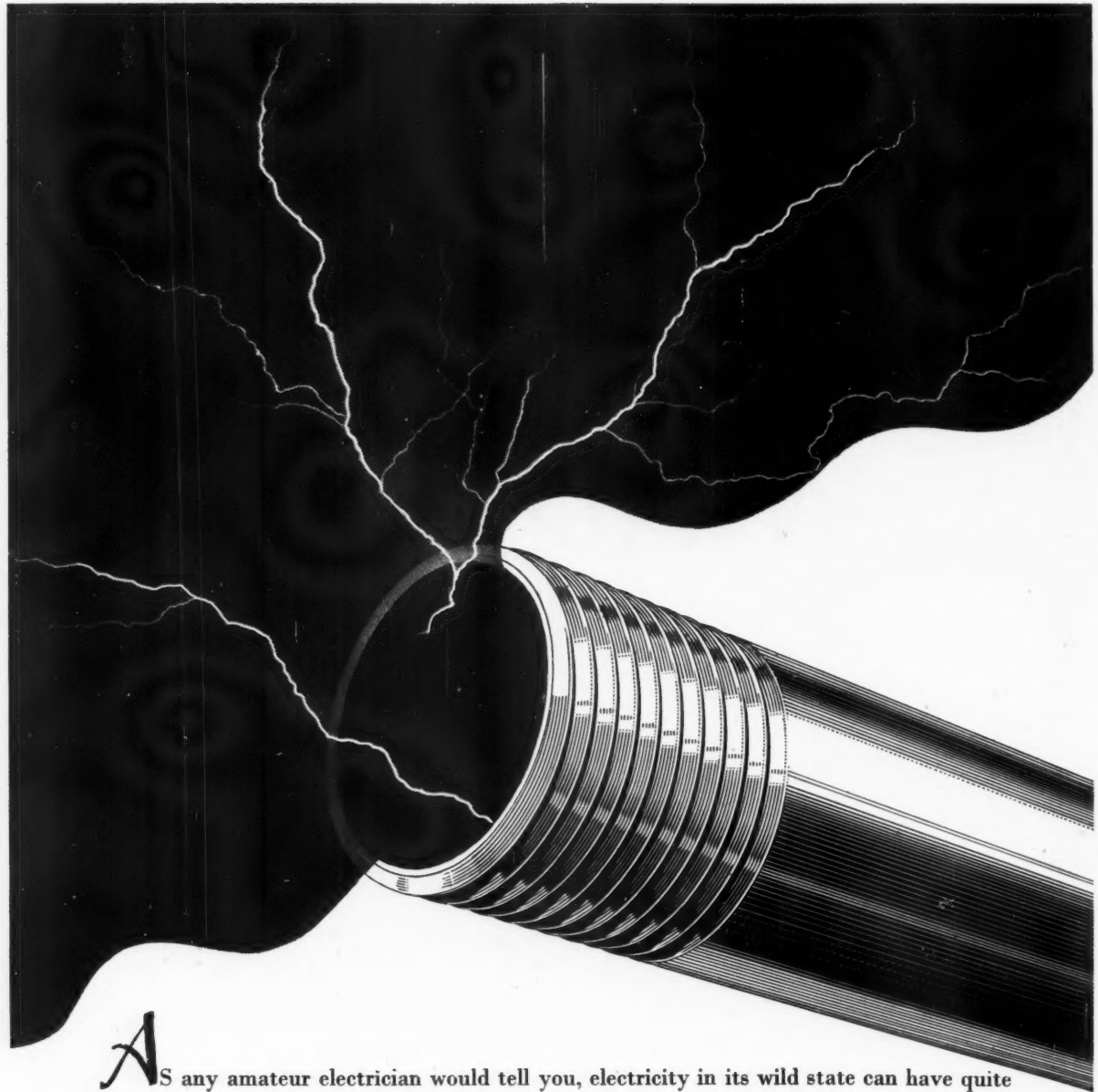
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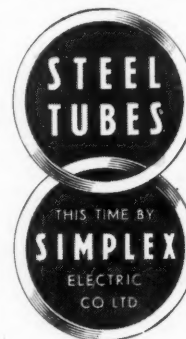
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NEW ZEALAND—THE OLD SETTING AND THE NEW ARCHITECTURE

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ARCHITECTURE IN

New Zealand—discovered in 1642, but not systematically colonized until the 'thirties of the last century, a country of contrasts, with fertile plains, hills on which some of the best sheep in the world are reared, craggy peaks, fjords and lakes, geysers and glaciers, and with the most progressive government of the Empire—briefly sketches in the following pages the story of her struggle for an architecture of her own. The beginnings were promising. There was plenty of timber and plenty of local skill to work it. Pompous Victorian governmental buildings were built of wood; so are still to-day nearly all private houses, most schools, and a good many other public buildings. But a frank timber style existed only in the very first years, and is being recovered now. In between there came a wave of European historicism, all the varieties of Victorian period imitation, from a sober late Regency Neo-Classical (as illustrated in the engraving on the opposite page) to Neo-Gothic, Neo-Elizabethan, Neo-François I, and to the Edwardian Imperial of the early twentieth century. Just when this blight was ripe, a boom period set in and demanded masses of office buildings, banks, etc., and hundreds of thousands of houses. The appearance of the New Zealand country town (centre picture) and suburb reminds one of the ugliest aspect of the United States. Attempts at a sounder style have only been made within the last ten years or so. Some specimens of the results achieved are shown in pages 53 to 58. If it is not yet possible to discover specifically New Zealandish qualities in such buildings as the drapery store on the left—a concrete building at Christchurch by George Hart—domestic architecture shows certain characteristics due to the lightness of the timber construction which promise future developments, both indigenous and contemporary.



Barrett's Hotel, Wellington, as opened in 1840, a Neo-Classical timber building. It shows how the early colonists adapted a native building material to the forms of the style with which they had been most familiar at home.



RE IN NEW ZEALAND By H. Courtney Archer

IT is often proudly claimed by New Zealanders that their country is the most English of the Dominions. True, this statement is rarely, if ever, substantiated, were that possible, but the New Zealander is tied by strong bonds of sentiment to "Home" as the British Isles are always called, and the building of a "Britain in the South Seas" has been the desire and aim of the inhabitants during the past hundred years. This conscious attempt to preserve an English tradition has led to the establishment of schools modelled on the Public Schools, the building of Gothic churches and half-timbered Tudor houses and a desperate attempt to cling to traditional English social customs and habits in the face of slow but positive social and economic reforms brought about by progressive legislation, and the determination on the part of a small minority to attempt to build a distinctive New Zealand culture. The first settlers were largely of English origin. They came to the new colony to take up land, and the early years of the country saw only a slight adaptation of the Victorian way of life. However, as the country grew and prospered, the control of the economic, and as a result, the social life of the country, slowly changed from the agricultural community into the hands of the rapidly increasing business class created by the needs and control of the products of agricultural production and the growth of industry. This change of control has had a widespread influence on the social and cultural life of the Dominion, for whereas the agricultural section had looked to their former homeland England, the commercial and industrial community looked more to America whose development was more closely allied to that of the new country. Much of American life was adopted almost without change and the New Zealand landscape, the towns with their American equipped theatres showing American films, the streets of bungalows equipped with telephones,

electric lights and cooking appliances, radios, and the American sedan motor cars parked in the street or in the garage, and the country patterned with electric power poles and worked with American farm implements, has more in common with the U.S.A. than with Great Britain.

New Zealand is a country with a wide variation of topography and climate. It is a country of rugged snow-capped peaks, rolling downs, luxurious sub-tropical forest, wide wind-swept plains, or warm fertile valleys reminiscent of Greece. The two main islands lie in a broad sweep in the South Pacific with a sub-tropical climate in the north (it is parallel with Sydney) and a sub-Arctic winter in the south (parallel with Southern Argentine).

Yet between the two climatic extremes there is as yet but little attempt in architecture to meet local needs and requirements of climate or materials. An Auckland house, with citrus fruits growing in the garden, looks so far very much the same as a house in central Otago with a frost of 30 degrees on the ground. In the early days of the Colony some use was made of local materials and for a short period it seemed as if a style of domestic architecture, limited to the southern portion of the South Island, with walls and partitions of crude clay bricks, and long low-sweeping verandahs might develop. However, it was lost when developments from overseas began to spread.

Yet it is obvious that the large resources of timber in both Islands will always make it the cheapest and most readily obtainable building material. While for larger buildings the need of an earthquake-proof construction has been favourable to the introduction of reinforced concrete, wood will continue to be the chief material in domestic architecture. The reluctance to use reinforced concrete for private houses has, on the other hand, together with a distrust of central heating, kept planning very rigid. Cost of building is relatively

high since workers are paid good wages, and imported accessories cannot be obtained cheaply.

Abel Tasman, a Dutch explorer, is credited with the discovery of New Zealand in 1642, but it was left to a Captain in the British Navy, James Cook, to rediscover the islands in 1769, when he explored and charted the whole of the coast-line. The first European expeditions to the country were for flax and timber; and the store bases for whalers and sealers operating in the South Pacific were the first white settlements. The first large settlements occurred during the early years of the nineteenth century at a time when conditions in England and Europe were made even worse than usual, by the failure of the harvests, and people turned hopefully to the prospects of a new life in the colonies. The 1830's were the years of the "colonial theorists," Edward Gibbon Wakefield, Lord Molesworth and John Stuart Mill, and talk of colonial reform was in the air. As a result a company was formed to buy land in the new country and to establish settlements according to a plan. The basic principle of these settlements was to be the "sufficient price" for land as a means of retaining a body of labour in the new colony and attracting settlers of sufficient means to employ labour. Land was to be sold at a high price and the money to be used for administration, surveying, emigration and for ecclesiastical and educational purposes. This attempt to transfer a vertical cross-section of Victorian English life was, of course, not successful.

The early architecture, sometimes of wood but more often of clay used monolithically, or as bricks, dried in the sun, had features which, unfortunately, were not followed by later generations. Plans were economical and straightforward, materials were put to the best possible use, construction was sound and careful craftsmanship was much in evidence. The limited resources of money and materials

gave the early work a simplicity which is lost to much work of later periods.

The latter half of the nineteenth century saw the new country progress with amazing rapidity. The agricultural land was cleared and under cultivation, the hill country was taken up for sheep farming, and the discovery of refrigeration led to a large export trade, mainly to the British Isles, and the increasing prosperity of the country was reflected in the growing mileage of railways and roads and the new buildings of the fast growing towns. The increased prosperity made possible high standards of comfort and hygiene and unfortunately also made possible the Victorian taste in planning and decoration. The settlers endeavoured to reproduce the architectural styles of their former surroundings, and in a few short years the architecture of the new colony abounded in "Gothic" churches, "Greek" banks, half-timbered English cottages, the steep pitched roof of the French house, the verandahs of the Indian bungalow, and American styles of building imported direct from California or via Australia.

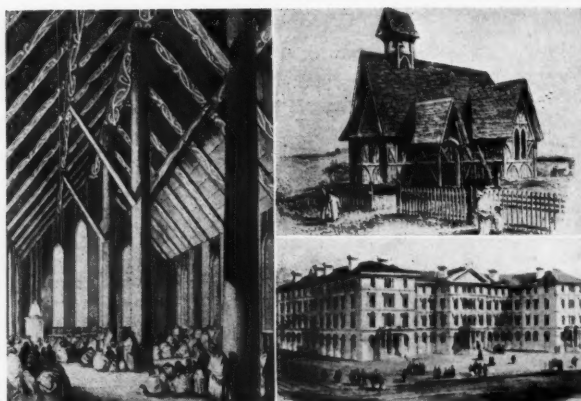
From 1900 to the Great War architecture entered a haphazard stage of evolution, and as the control of the country shifted into the hands of the rapidly increasing business class, the influence of America became more pronounced, and the suburbs from 1900 onward might be the suburbs of Philadelphia or Chicago, with their rows of dreary T. houses with ornamental ironwork, coloured glazing and iron roofs.

The Great War and the social upheavals which followed it in Europe left the social and cultural life of the Dominion practically untouched. Architects were not yet influenced by the new architecture which came to the fore in Europe with its emphasis on the role of sunlight, air and space and new methods of construction made possible by the use of steel, glass and concrete. In the years of prosperity which followed the war the land speculator and the builder rather than the architect were in the position to dictate what form the architectural landscape was to take.

To-day most of our towns and cities show clearly that new form. Town planning is little more than a name, the suburbs continue to spread like a blight into the countryside, ribbon development is growing along all the highways, and speculative flats—potential slums of the future—are rapidly appearing to alleviate the housing shortage, either as new tenements of minimum standards or as converted Victorian villas.

The average New Zealand bungalow, the product of the land speculator and the builder, is the typical home of a large percentage of the population. Built usually in wood with a low-pitched corrugated iron roof, its main features are its restless roof line and its fussy windows, as a rule with a high glass line and traces of Art Nouveau still lingering in the fanlights. The plan is usually neat, providing often for four or five rooms and with a large area of passage space, and is carefully orientated to the street frontage irrespective of sunlight, wind or privacy. A very small percentage of the houses built are "architect designed," as few New Zealanders are "architecture-conscious." What few there are, show influence from English domestic styles, chiefly the Neo-Georgian, or the American revival of the Colonial and Spanish Mission styles. Of this work it is true to say that it appears completely out of touch with the main stream of modern architecture, and can only be regarded as an example of the inherent conservatism which permeates the whole of the cultural life of the Dominion.

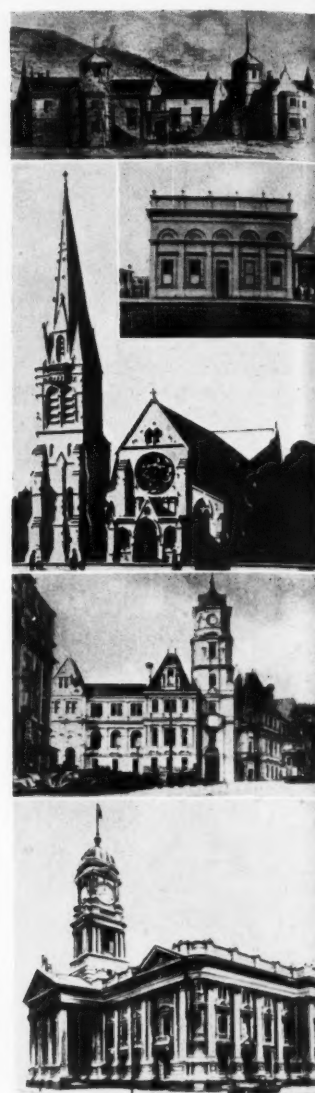
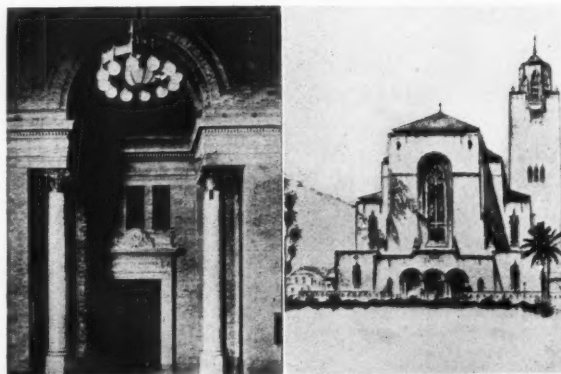
During the last ten years, however, there has been a gradual awakening. A small but growing group of young architects and of enthusiastic lay men and women has through travel or the study of modern European civilization become conscious



TIMBER—THE TRADITIONAL MATERIAL. On the left a church at Otaki, near Wellington, built in 1849-51 by Maoris. On the right a Mid-Victorian church in the Auckland province, and the Government Buildings in Wellington completed in 1877. This is said to be the largest timber building in the world.

SUBURBAN CONDITIONS TO-DAY.

The suburbs of New Zealand cities are very much like suburbs in the United States. The top picture shows typical builders' houses, the one beneath a more ambitious Californianate bungalow; the one at the bottom a State-built timber house. The attitude of the New Zealand Government towards housing is exemplarily enlightened.



EUROPEAN HISTORICISM.

The Colonists brought with them all the picturesqueness and absurdity of period imitation. Above: the Nelson Provincial Government Building of 1861 in Elizabethan, Sir Gilbert Scott's Christchurch Cathedral of 1864-81, an Italianate bank of 1864 at Invercargill, the François I. Art Gallery in Auckland of 1887, and the Wellington Town Hall of 1904.

OFFICIAL BUILDING TO-DAY

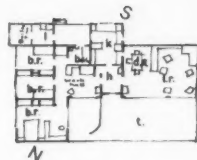
is under strong American influence. The interior of Auckland Station, by Gummer and Ford, opened in 1930, and the proposed Wellington Cathedral, by Cecil Wood.

of the new developments in architecture, and is beginning to influence building in this country. The battle for recognition has hardly begun; the amount of modern work is very small indeed, and can only grow if a true appreciation of the new style spreads amongst intelligent people. A distance of twelve thousand miles to Europe makes it difficult for young architects to become familiar with new work, although through the many books and periodicals published they have knowledge of what is being achieved. Public Libraries and the Country Library Service which cover the whole of New Zealand have, by making obtainable books

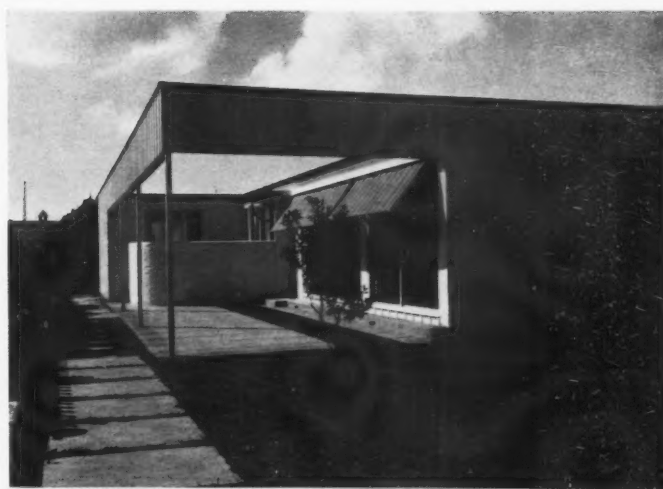
and periodicals which expound the principles and illustrate the practice of modern design, done much to break down cultural isolation. There is, however, need for much more education and propaganda as to the aims and objects of modern architecture, and organizations similar to the Museum of Modern Art in America, or the M.A.R.S. group or the D.I.A. in England, to mention only a few, are urgently required to help to bring before the public examples of modern architecture, furniture and interior equipment. Until such work is done progress will be very slow.

SOME RECENT BUILDINGS

The east end of the church at Waiho, Westland, by Turnbull and Rule. The congregation, instead of looking at a reredos, has a view past the altar cross at the Franz Joseph glacier.



House at Auckland, by W. R. Simpson—one of the most uncompromisingly contemporary buildings in New Zealand, yet built of timber. Living-room and dining-room are combined and opened up north towards the terrace. The plan is on the left.



House at Christchurch, by Jack Chell Holliss—again a one-storeyed wooden construction. The fluting of the bay is a legitimate timber pattern. The river Avon is in front of the house, at the back a parking space for a caravan painted the same colour as the house.



Block of flats in Wellington, designed by Gordon Wilson for the New Zealand State Housing Department. One hundred and sixteen flats, nearly all of them of identical plan. Reinforced concrete construction with bearing walls. No beams or columns. The State initiative in New Zealand housing deserves the highest praise—certainly for the quantity of work done, but also, this illustration indicates, for æsthetic enterprise.



Top, the Centennial Memorial and Plunket Rooms at New Brighton, near Christchurch, by Paul Pascoe, a brick building for baby welfare work. Centre, the A.A. Building at Napier, by E.A. and L.G. Williams, reinforced concrete frame and brick walls. Bottom, a dairy factory at Christchurch, by W. H. Trengrove.



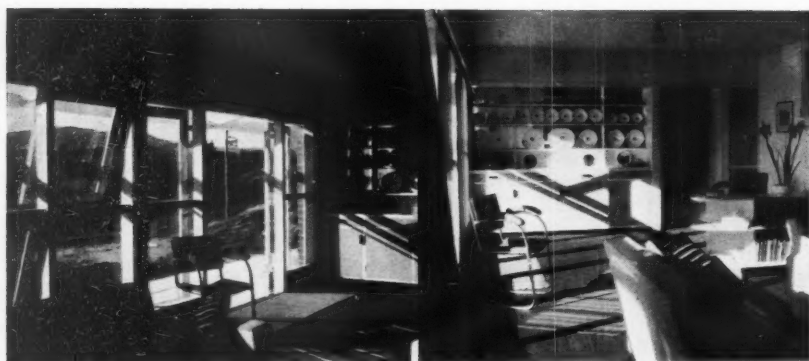
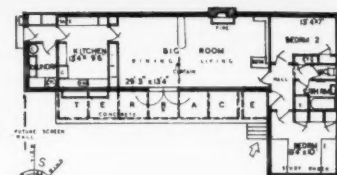
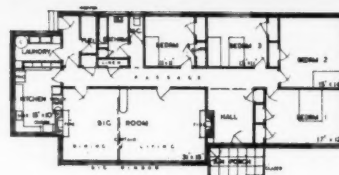
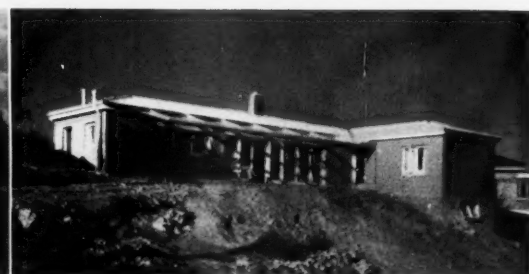
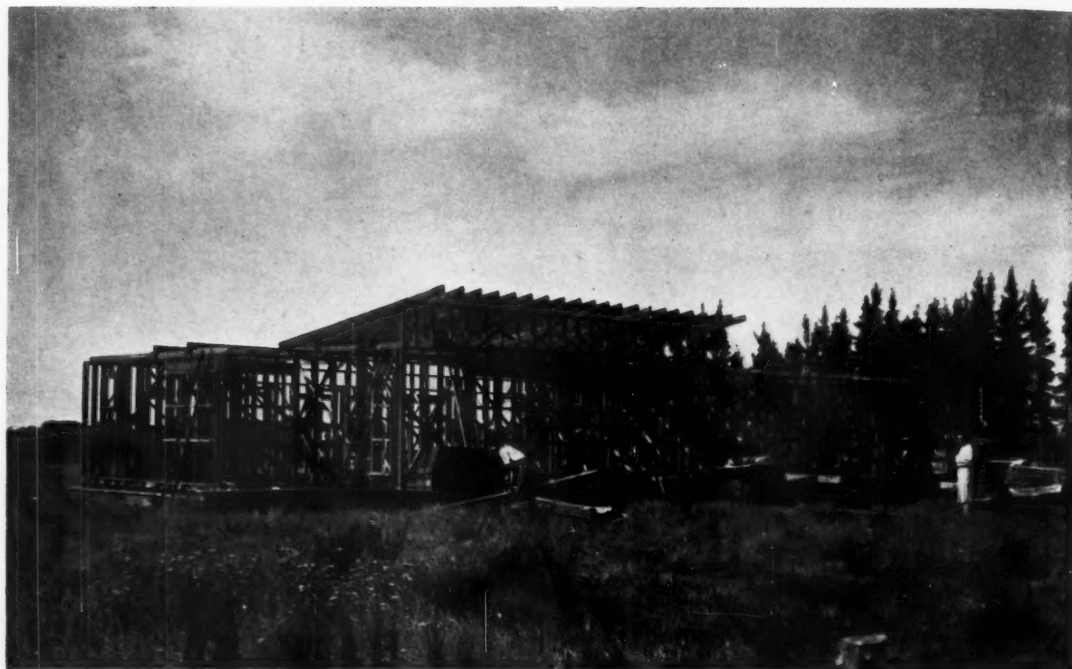
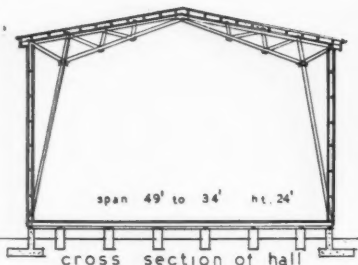
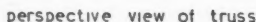
That modern architecture has got a firm foothold in England is due to the pioneer work of a few English designers and to the arrival in England of many of the leading continental architects as refugees from Fascist Europe. Nothing of this kind occurred in New Zealand, for the few modern-minded architects have so far had little opportunity to influence contemporary design, and the New Zealand Government was restrictive in its policy for the admission of refugees into the country.

Another restrictive influence on modern architecture in New Zealand is the fact that much of

the best intellect of the country goes overseas, usually to study, and does not return. This is true of architects as it is of Rhodes scholars and scientists. Among New Zealanders with a fine architectural reputation must be included Connell and Ward, Brian O'Rourke, H. Spence Sales, R. Uren, Edward Armstrong. As yet modern architecture has the support only of a few of the intelligentsia and there has been little patronage, either industrial or official. The nearest approach has been the work of the Education Department, whose architects, faced with the problem of building efficient open-air schools, have come nearer to

modern principles in their work than any other official body. During the past five years the Department of Housing Construction, a branch of the State Advances Corporation, has purchased land and constructed over 16,000 houses in all parts of New Zealand. For nearly half a century the State has concerned itself with the housing of the people, although up till 1936, when the Labour Party came into office, it took the form of State advances. It is to be regretted that the Department of Housing Construction did not set itself to discover in what manner the housing of the people had been approached in other parts of the world,

S O M E R E C E N T



THE IMPORTANCE OF TIMBER.

In contemporary as in traditional forms, timber is still the universal material for New Zealand's domestic architecture. On this page two houses by Paul Pascoe are illustrated, the one with the sun-porch and the big windows (of which the timber skeleton is shown) on a farm near Methven, Canterbury, the other at Dunedin. The wood-stud construction with a brick veneer is very characteristic. The two interiors are from the Dunedin house.

and that the work of such pioneers as Ernst May, Walter Gropius, Otto Haesler and the many others who have set a new standard for housing the people was overlooked or ignored. Compared with the average speculator-builder house, the new schemes did show a considerable advance in planning and in interior equipment but, as no measures were taken to control land-uses and land values, and as private enterprise was allowed to construct individual houses, without even considering the advantages of flats as city dwellings, the possibilities of communal hot water and laundry services, and the use of mass production for construction and equipment, the result has been high rents, prohibitive for the lower income

groups. Compared with the best work in Europe and in America it might be said that the housing schemes were in every way at least ten years behind corresponding work in England, Germany or Holland, although projects are now in hand for unit construction and sky-scraper flats.

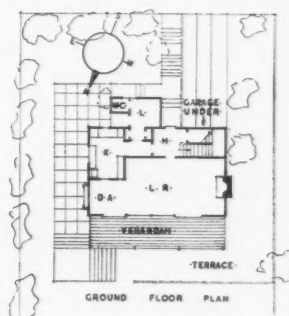
Once more, until widespread interest has been roused in modern architecture and all its social implications, the progress of modern work in New Zealand must be slow. Of the work of the young contemporary pioneer architects illustrated in these pages much is mature, sensitive work making effective use of the simple materials to hand, and quite apt to serve as a foundation on which to build in the future. Last year New Zealand

celebrated the centenary of British rule. During these hundred years her architecture has appeared in an amazing variety of styles. New Zealand architecture was handicapped by the fact that her colonization coincided with the collapse of the architectural good taste of the Regency period in England. To-day the ideas of architects in all parts of the world influence the work done, but as New Zealand goes on developing her own character, it can safely be presumed that her architecture, the work of men born and bred in New Zealand, will one day be equipped to add something essential and original to the spheres of human interest to which New Zealand has already made valuable contributions.

BUILDINGS IN NEW ZEALAND



House at Orakei, just east of Auckland, by Vernon A. Brown. The site slopes towards north, i.e. the midday sun. From the terrace an unimpeded view is obtained of the Waitemata Harbour. Waitemata Channel and the islands screening the entrance to Auckland from the gulf. On the fieldstone foundations the house is constructed of wood. Inside living-room and dining-room are separated by a glass wall on which a map of the gulf is etched, with tidal indications, anchorages, etc.

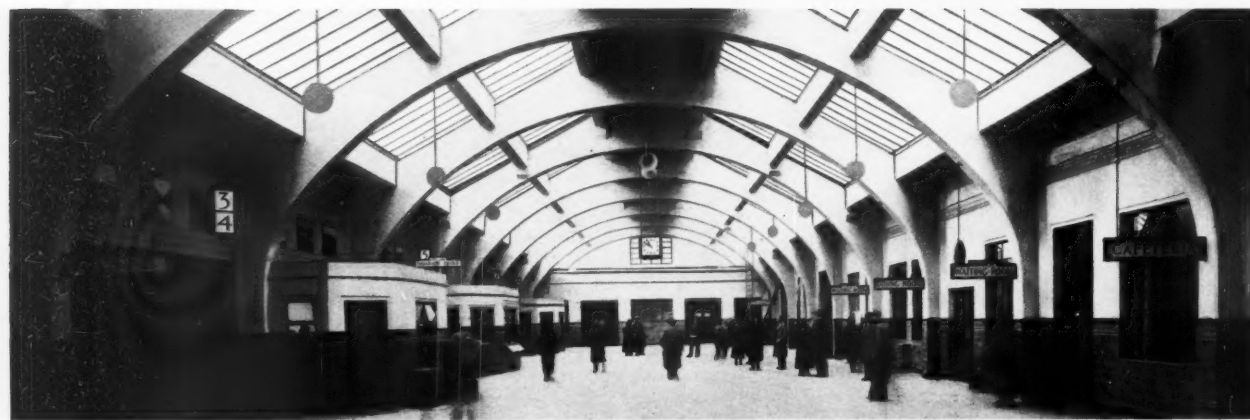
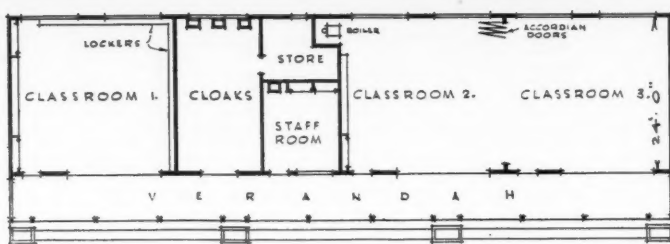
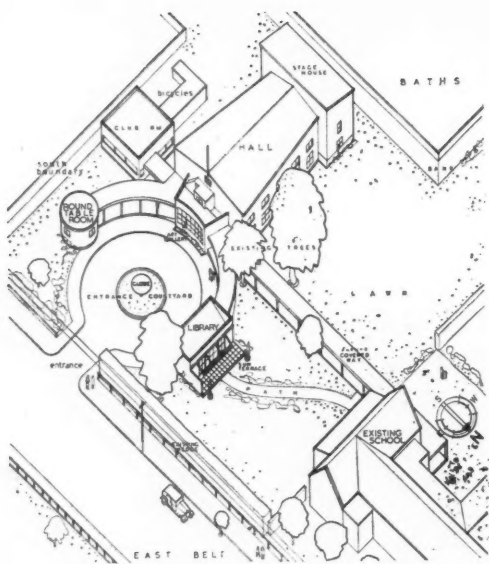


House on a hill in Wellington, by Cedric Firth. The brightly-coloured timber walls are successfully contrasted against the innumerable shades of green of the luxuriant vegetation. The site slopes so that the garage underneath the living-room has windows to the west. The dining corner is not separated from the living-room. The bedrooms are on the top floor. The small picture shows the living-room interior. On the extreme right are the plan and a perspective sketch.





At the top a school in Canterbury, by John Bigg, a typical example of the clean and pleasant architecture of many Education Board schools. The plan (beneath the photograph) is straightforward, the construction of timber, with most of the parts standardized. The verandah protects the classrooms from too much summer sun, while the fanlight windows allow the winter sun to enter unimpeded. On the left the new Community Centre at Rangioro, by Paul Pascoe (engineer E. G. S. Powell), the first of its kind in New Zealand. It is attached to an existing High School. Function and style are inspired by the Impington Village College. The Round Table room is for school council and panel discussions; the vestibule of the hall can be used for art exhibitions. The library has a sun terrace. The large school illustrated to the right of the Community Centre is Dunedin Training College, by Clifford Muir. Wood framework and brick walls.



Wellington Railway Station, by Gray Young, Morton and Young. The exterior is in the American Neo-Classical manner. The interior, with its concrete arches, flush tiling and clear lettering, is undisguisedly contemporary.

SOME RECENT BUILDINGS IN NEW ZEALAND



c. 1700

1, wing chair Victoria and Albert Museum. Illustrated by courtesy of the museum. The only type made before the nineteenth century which can properly be called an easy chair.



c. 1815

2, arm chair by Sir John Soane, at the Soane Museum. Illustrated by courtesy of the museum. Some of the characteristics of nineteenth century easy chairs begin to appear.



c. 1850

3, the Victorian easy chair achieved, complete with low legs, curved lumpy arms, and a shell-shaped back—an extremely comfortable if somewhat vulgar model. From Heal's catalogue of 1856.



c. 1900

4, the Victorian easy chair straightened out according to the new tendencies of the late nineteenth century. The period of Voysey and Mackintosh is now reached. From Heal's catalogue of 1911.



c. 1933

5, the modern easy chair, a type in harmony with the new architectural idiom. The checked linen cover as against the floral cover of the previous type should be noted. From Heal's catalogue of 1933.

The Evolution of the Easy Chair

By Nikolaus Pevsner

WHEN one day the art historians discover that there is such a thing as a history of furniture in the nineteenth century, they will find that one of the most promising tasks is that of elucidating the development of the easy chair. For the easy chair which you now expect to find in every home run on an income of £300 or more, hardly existed before the Victorian age. The term existed however. Matthew Prior (1664-1721) used it, for example, in *Cupid Turned Stroller*, and Farquhar in *The Beaux Stratagem* (1707), but if we ask ourselves what it can have referred to in the eighteenth century, and what types of fully upholstered chairs were made, we will only be able to discover two kinds, the wing or grandfather chair, 1, and the *bergère*. The wing chair was an English invention of the late seventeenth century, and it is worth mentioning that it only represented the end of a development which had, from the days of James I, produced softer and more generously stuffed chairs and settees than those of any other country (there are famous examples, of about 1610, at Knole). Maybe the dampness of the climate and the draughtiness of the houses was responsible for them; maybe a desire for comfort and ease at home such as certainly guided the evolution of English furniture later. The *bergère*—a wide armchair with upholstered arms leading up in a curve to an only slightly taller upholstered back, with wood showing on top of the back and in front of the arms—was created in France during the eighteenth century and introduced into England, when the influence of the style of Louis XVI set in. The *bergère* and the wing chair are the only two types which Sheraton illustrates in his *Cabinet Dictionary* of 1803 under the name of easy chairs, 6, 7.

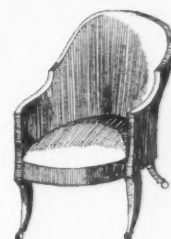
The Neo-Classic movement which is responsible for the rather meagre though graceful forms of Sheraton's chairs had, however, led to the adoption of a few characteristic features in chairs and settees in general which were to play an important part in the creation of the new nineteenth century shapes. There was, on the one hand, the revival of the Greek chair of the fourth and fifth centuries with its boldly out-curved legs and its boldly curved back, rounded in plan and swinging backwards in elevation (as in the well-known Hegeso relief, or the life-size seated figure of a Roman lady in the Torlonia Collection). Flaxman favoured this type in his drawings and reliefs. On the other hand, settees and above all daybeds or couches (with backs extending from the head-end only half way along) were made at the end of the eighteenth and the beginning of the nineteenth century with very short legs and generously

S-curved arms (or, in couches: head-ends). These are illustrated in Sheraton's *Cabinet Dictionary*, 8, in Thomas Hope's *Household Furniture* of 1807, in Percier and Fontaine's *Receuil* of 1812 and elsewhere. During the next thirty years two new types of chair were introduced, neither as yet easy chairs in our sense, but both heralding their appearance in the immediate future. One is illustrated in Thomas King's *Modern Style of Cabinetwork* of 1835 under the name of "easy chair with inclined seat," 13. The back has now the S-curve of the Grecian couch. The legs, out-curved as prescribed by the Neo-Classic tradition, are much lower than they were, as long as true Greek revivalists insisted on purity of style. Moreover, seat and back are united into one, and the buttoning of the morocco—an upholstery device by no means new*—stresses the feeling of comfort conveyed by the luxurious curve of seat and back. J. C. Loudon's *Encyclopedia of Cottage, Farm and Villa Architecture and Furniture* of 1833, that mine of useful and entertaining information on the 'thirties, contains the very same type and, furthermore, contains what appear to be the missing links between this semi-Grecian type and the proper Victorian easy chair, 11, 12. For while the fronts of the arms still exhibit some crudely antique decoration, the backs and arms are now shaped into one bulging curve, the hall-mark of Victorian comfort. The buttoning once more emphasises the inviting and a trifle common homeliness of the form, a form that can be traced back to origins about twenty years earlier. A chair of about 1815 by Sir John Soane (in the Soane Museum, 2), has the same lyre-shaped front, though rendered with much more spirit and determination, and a similar proportion. But a certain amount of separation is kept between arms and back, and the back has a straight top. Gillow at the same time frequently used in his decorating schemes† a chair with the same front, but a back with a shallow segmental top, and no caesura between back and arms—a type exactly midway between Soane's and Loudon's. However, Loudon's is far more billowy, and generally heavier and statelier.

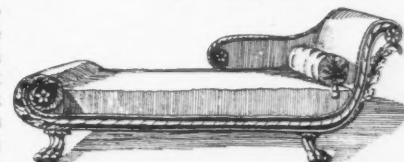
It is clearly in accordance with this development that round about that time spiral springs seem to have been adopted by upholsterers. Loudon illustrates a spiral spring in connection with the making of mattresses only,

*Cf. McQuoid's *Age of Satinwood*, Fig. 111, and McQuoid & Edwards's *Dictionary*, Vol. III, Fig. 59.

†The date 1817 occurs on one of the original drawings which, thanks to Mr. Christian's kindness, I had an opportunity of examining at Messrs. Waring and Gillow's studio.



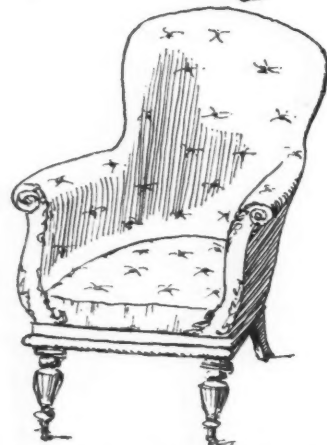
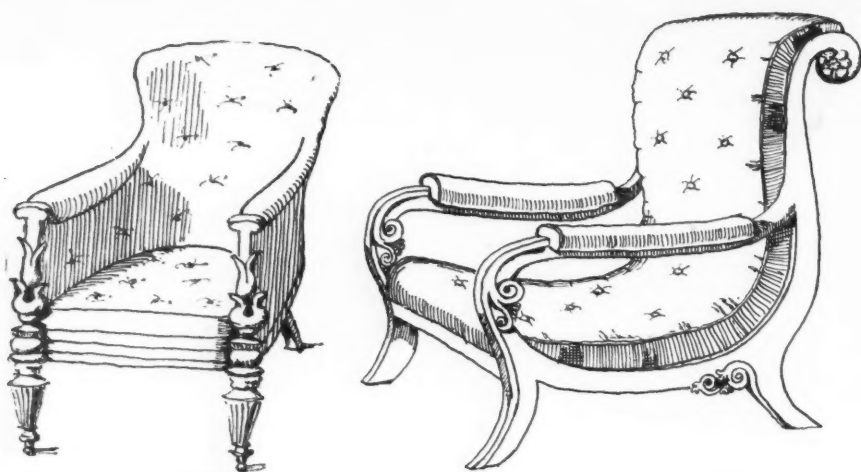
6 and 7. When Thomas Sheraton compiled his *Cabinet Dictionary*, which was published in 1803, there existed only two types of chair with upholstered arms and upholstered backs, the *bergère* and the wing chair. The *bergère* had come from France when French Louis XVI began to influence England. The wing chair was an English invention of the later seventeenth century, the age of Charles II and James II, when domestic comfort was first taken seriously. Sheraton illustrates both types without essential modifications, but interprets them with the characteristic delicacy and thinness of his style. Where he is more original, or at least more modern, is in his designs for couches.



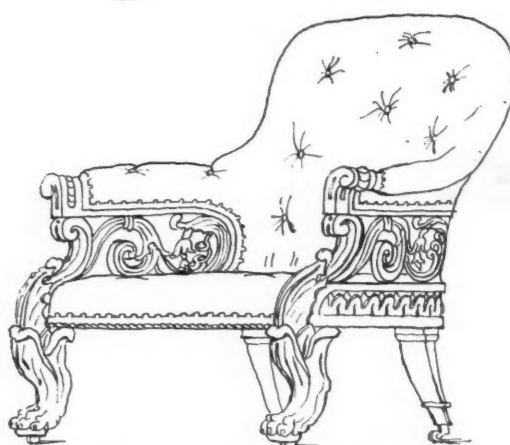
8, the Grecian couch of c. 1800, such as this from Sheraton's *Cabinet Dictionary*, has low stumpy feet and a boldly out-curved back, two features that were soon to assume a new significance in easy chair design.



9 and 10, already in these designs of Gillow's dating from c. 1817 one finds the stumpy baluster feet and the backs generously curved in plan of the Victorian easy chair.



11 and 12, Loudon's *Encyclopaedia* of 1833 illustrates the type which has been shown on the previous page as used by Sir John Soane c. 1815, and by Gillow c. 1817, and also another version of it modified in a characteristically Victorian way. The separation between arms and back becomes less noticeable, as the back begins to bend round in plan towards the arms. Here for the first time the bulging curves of mid-nineteenth century easy chairs are heralded.



13 and 14. These two models, the top one from Thomas King's *Modern Style of Cabinetwork* of 1835, the bottom one from H. Whitaker's *Practical Cabinet Maker's and Upholsterer's Treasury of Design* of 1847, show significant transitional forms between the Neo-Classic and the Victorian. King's has the scrolled back and the short outcurved legs of the Grecian couch, Whitaker's the grandeur of the Empire throne. Yet the buttoning gives both a Victorian flavour. Their seats seem to be comfortable—less exacting than genuine Neo-Classic chairs. But how was this comfort achieved? Were they meant to be spiral sprung? It would be possible; for spiral springs were invented before 1800 and adopted by the French and English upholstery trades in the thirties. The invention is in all probability French, but its use for the modelling of the Victorian easy chair proper seems to be due to England. French books deny this and ascribe the creation of the "fauteuil comfortable" to a French upholsterer, Dervilliers. But the appearance of the new shape is so sudden in France and so well prepared by many transitional models in England, that English origin is much more likely.



16 and 17, the Victorian easy chair is now complete, bulging, plump and buttoned, somewhat vulgar perhaps, but homely, informal and comfortable, the very type of chair in which one can imagine the Queen converse with the Prince Consort or play with her children. Heal's issued illustrated catalogues from 1852 onwards. In 1856 the first easy chairs were shown. 16 is one of them. In 1862 already a straighter type was introduced, a type henceforth to be called in France "fauteuil anglais." Everybody knows it and has sat in it, in a Pall Mall club or an out-of-the-way country hotel. The details of the feet will help to date it correctly.



but J. Saville Crofton in his *London Upholsterer's Companion* of 1885 knows of them for seats as well. In point of fact they had been invented a good deal earlier. Deville in his *Dictionnaire du Tapissier* (1878-80), ascribes the invention to a German smith of about 1820, and its introduction into chairmaking to the French upholsterers Chare (about 1825) and above all Dervilliers (about 1838). Havard in his *Dictionnaire* corrects this and points out that sprung seats existed in France before 1800. Sir Ambrose Heal confirmed this to me. But Havard also stresses the important role of Dervilliers in the commercialisation of the new device. Dervilliers is incidentally also regarded by Deville as the creator of the *fauteuil comfortable*, i.e., the typical Victorian easy chair of which more will be said presently. I doubt whether this contention can be maintained, for not only are Loudon's chairs, and perhaps even more a caned *bergère*, 9, used by Gillow together with the lyre-fronted chair, obviously its immediate predecessors, but we also find in English upholstery between 1830 and 1850 any number of transitional forms leading more convincingly towards the finished type than any corresponding French specimens that I know of. Thus H. Whitaker in his *Practical Cabinet Maker's and Upholsterer's Treasury of Design* (1847; part 13), illustrating "Easy Chairs in the Italian Style," combined the acanthus ornament, the lion's paws, etc., of Empire and Regency with the plumpness of the bulging and buttoned Victorian back, 14. Others added equally bulging fancy shapes—shapes rather vulgarly expressing the heyday of bourgeois prosperity, as cosy and hospitable and unsophisticated as Mr. Pickwick or Victoria's and Albert's correspondence, and as emphatically opposed as these to the formality of the Ancien Régime.

Now this is the moment when Messrs. Heal's of Tottenham Court Road started publishing illustrated catalogues. 1852 is the date of the first, from 1856 onwards they regularly contain drawings of easy chairs. The sets of these catalogues are preserved complete to the present day, a rare good fortune. Owing to the kindness of Sir Ambrose and Mr. Anthony Heal I have had access to this invaluable treasure of nineteenth century art history. The very first edition with easy chairs shows the Victorian type complete (No. 832, 16), buttoned, with sprung seat, back and out-curved arms in one, and short turned baluster legs, the type which Deville calls *fauteuil comfortable*, and which Havard illustrates from the specimen in the Paris Musée Carnavalet.†

In 1862 another type, No. 847, 17, was added by Heal's, also buttoned, and also on the short baluster legs, but with a taller back, and arms kept separate from the back. This shape is known to Deville as *fauteuil anglais*. Add a long fringe to the bottom of the seat of this or the 832 chair, as was frequently done, and you have a type still to be seen in many Victorian houses, all over the clubs of Pall Mall, in Queen Victoria's palaces and country seats, and also at St. Cloud and the other palaces of Napoleon III and the Empress Eugénie.* Heal's, in fact, did not drop No. 832 until after 1913, while 847 is still in existence though in a revised form. This gradual revision of the *fauteuil anglais* reflects so clearly the development of decorative art during the last third of the nineteenth century that it must here be followed in some detail. In doing so, we can safely limit ourselves to Heal's catalogues, because the firm was at that time, and especially towards the end of the century, the most progressive of its kind in Europe.

It is known that the reaction against Victorian pomposity and stolidity was led by William Morris. With him the feeling returned for sharp outline and the character of materials. Thus in furniture he reverted to late Gothic, and his followers, such as Ernest Gimson, Barnsley, Spooner and others, to the honest rustic forms of the early seventeenth century. Ladder-back

†T. King: *Original Designs for Chairs*, ca. 1840, pl. 30, 15; P. Thomson: *The Cabinet Maker's Sketch Book*, 1852-53, H. FitzCock's papier mâché easy chair, called "The Day Dreamer," at the 1851 Exhibition, Cat. Vol. II, No. 187; Heal's Catalogue of Sept., 1856, Nos. 834 and 838.

‡The one in which Béranger the poet died in 1857.

*Cf. H. Clouzot: *Des Tuileries à St. Cloud*, Paris, 1925, pl. 8, 19, 24.



15, a typical Early Victorian freak; from King's *Original Designs for Chairs* of c. 1840. The derivation from Sir John Soane's chair is evident. The legs, however, are of a later type.

and Windsor chairs turned up in the rooms of the most modern-minded. Morris's own company had been founded in 1861, but the Arts and Crafts Movement did not begin to spread until the 'eighties. Mr. Mackmurdo's Century Guild was started in 1884, the Art Workers' Guild in 1886, the Arts and Crafts Exhibition Society and Mr. Ashbee's Guild and School of Handicraft in 1888.*

Now in 1886 Heal's introduced two new easy chairs Nos. 907, 18, and 909, 19, both obviously variations of the old 847. But the seats were somewhat lower, i.e., less formal again, and the tops of the backs decidedly straighter. We all know these kinds of chairs and have often sat in them. They are now as a rule loose-covered and a little shabby, but still as comfortable as they were when they were new, and in their unostentatious curves as near to an undated ideal of the easy chair as we can get. It is characteristic of Heal's response to the Morris Movement with its insistence on lighter and clearer forms that they included in their 1887 catalogue a page of Austrian bentwood (i.e., Thonet) chairs (one "Bohemian arm chair" of bentwood had already appeared in the 1862 catalogue), in that of 1888 a page of wicker chairs, and in that of 1890 some rush seated and some Windsor chairs.

That was before Sir Ambrose Heal was responsible for the policy of the firm. His driving power becomes noticeable only a few years later. The catalogue of November, 1896, is the first with a cover designed in accordance with the new style of the Arts and Crafts, or rather of Mr. Voysey. In 1897 Heal's famous campaign for wooden bedsteads set in. Concurrently, suites of bedroom furniture were introduced of evident Arts and Crafts character. Amongst easy chairs and settees less of the new spirit can be noticed, except, perhaps, for the fact that No. 966 of 1897 is once more straightened up, as compared with the types of 1886, this time in the section of the arms and the shape of the short legs, 20. That less inventive energy was now devoted to easy chairs, goes without saying; for the very campaign, now no longer led by Morris, who had died in 1896, but by Voysey, Baillie Scott, Ashbee, George Walton, Charles Rennie Mackintosh and others, was directed against that Victorian stuffiness whose very symbol was for many people the heavily stuffed easy chair. You could lighten it up by a flowered chintz or linen cover, but better still if you replaced it by lightly constructed loose-cushioned chairs with wooden backs and arms. No wonder that amongst the original designs for furniture by the leaders of the 'nineties there is hardly a proper easy chair.

I need not repeat here the story of how at that moment Britain forfeited her leadership in European architecture and design. Up to 1905 the world looked to England for inspiration. After that date the creative impetus passed on to other nations, and principally to Germany and Austria. Here the Arts and Crafts were transformed into industrial art, and here the breach with traditional forms was openly made. In England even the boldest had not entirely renounced compromises with period styles. The fact that the easy chair as such (or the steel construction of St. Pancras Station) was as alien to any style of the past as the innovations now advocated abroad remained unnoticed. On the contrary, as a pleasant but less adventurous modernized Tudor and an equally pleasant and equally plausible Neo-Georgian now replaced Voysey's style, so Heal's catalogues introduced as early as 1896 some "Modern Chippendale" and "Modern Sheraton" furniture and some genuine antiques. In 1903 illustrations of reproduction Queen Anne were added, and in 1908 illustrations of an imitation French eighteenth century bed, a *bergère* and a Jacobean bed. Heal's catalogue of 1911 gives twenty-two period suites.

Meanwhile Peter Behrens had built his revolutionary factories for the A.E.G. and Walter Gropius his Fagus Works at Alfeld, the Werkbund had been founded and was spreading the new belief in entirely unadorned, clearly outlined, and subtly proportioned surfaces. An immediate effect of these new ideas on the easy chair I have not been able to trace. As a rule architects were satisfied with English models or copies from them. Their sensible shapes and sound upholstery work needed no improvement.† The only exceptions of which I am

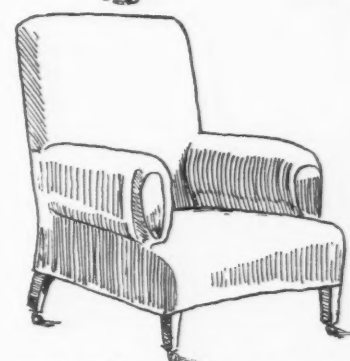
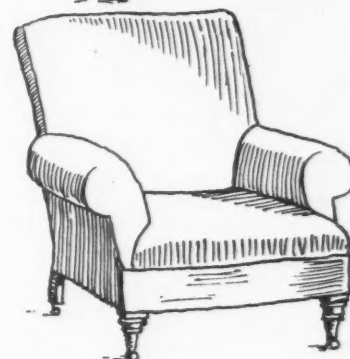
aware are two tub-chairs of about 1911 by Josef Hoffmann and the Wiener Werkstätte, 23 and 24, a Modern Movement adaptation of the typical Pall Mall tub-chair, known in Germany as *Clubsessel*.

Now that this stage in the development of the easy chair has been reached, there is only one more step left to bring us to the present-day type, the low-seated, low-backed, square-armed block-shaped type. It is only one of two solutions which the Modern Movement has found to the problem of comfortable sitting. The other is the lighter type, either with wooden arms and loose cushioned seat and back, as derived from the style of 1900 and exemplified by the German Knoll patent of 1928 now so popular in England, or else with chromium framework (Breuer, *Mies van der Rohe*), or bent ply frame (Aalto), leading up to Breuer's Isokon chairs, 22, in which the light weight of the dining chair is combined with the comfort of a divan, or rather an invalid chair.* These two alternatives, block-shaped fully upholstered easy chair and light yet equally comfortable easy chair with framework showing, are both to the same degree representative of the Modern Movement. Modern architecture can also be grouped under the two headings of a voluminal and a spatial tendency. A London example of the first is Wells Coates's Lawn Road Flats, 28, and of the second Maxwell Fry's house in Frognal Lane, 29.

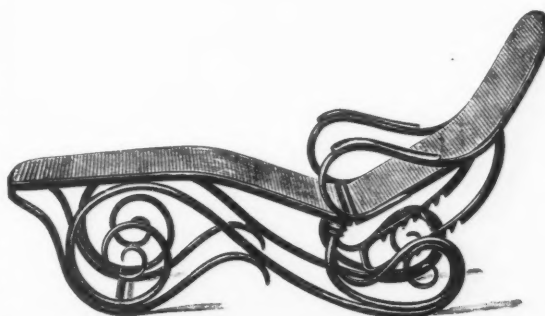
As I am not here concerned with the chairs with unupholstered arms it now only remains for me to trace the introduction and the spreading of the block-shaped type. In England I have not been able to find a single instance before 1930. In Germany it was certainly not popular by then. Neither in *Die Form* nor in *Innendekoration* and *Deutsche Kunst und Dekoration* have I found any example of it between 1927 and 1930. England remained faithful to its nineteenth century shapes, Germany preferred low and lumpy "expressionistic" ones† or else used English models (Muthesius, Niemeyer, Straumer). Thus it is to France that one has to look for the creation of the new type, and, if I am not mistaken, to Francis Jourdain (born 1870), in particular.

*In fact Thonet's bentwood invalid chairs as illustrated in nineteenth century catalogues, 21, are already constructed to exactly the same principle of knee and neck support as Breuer's. Breuer himself had worked out his idea before he came to England. Le Corbusier had done the same independently in 1928 (House Ville d'Avray, also Salon d'Automne, 1929) and Sven Markelius in 1930 (Arch. Review, 1930, pt. 2, p. 34).

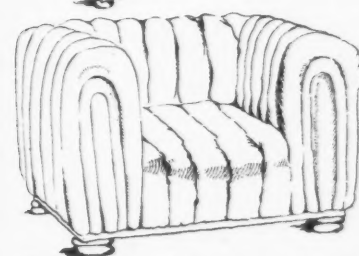
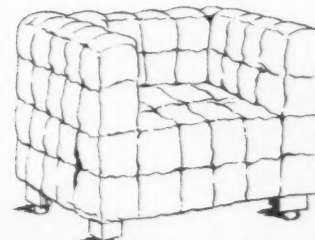
†J. Hoffmann: *Die Kunst und Dekoration*, Vol. 61, p. 448; B. Paul, ib. Vol. 66, pp. 50 and 55; J. Frank, ib. Vol. 65, p. 130; Bertsch, ib. Vol. 63, pp. 141 and 143.



18, 19 and 20, once the Victorian easy chair in its two shapes 16 and 17 had been achieved, the next decades brought only variations—and of course a spreading of the new types all over the world. 18 and 19 come from Heal's catalogue of 1886, 20 from that of 1897. By then Sir Ambrose Heal had made himself the driving power of the firm. He was in strong sympathy with the new Arts and Crafts movement. Hence the significantly simplified arms and legs of the new chair.



22, Breuer's famous Isokon Long Chair—an ideal combination of lightness and relaxing comfort. More than half a century before, Thonet's had already evolved a chaise-longue on the same principle, 21, top. Only they called it—hardy Victorians—an invalid chair.



23 and 24, the modern movement has not at once brought about a revision of easy chair design. The "fauteuil anglais" was so undated in its appearance that most modern architects were quite satisfied to use it. Josef Hoffmann's two tub chairs of c. 1911 are more twentieth century looking, but certainly less convincing from a functional as well as an æsthetic point of view.

*Cf. N. Pevsner: *Pioneers of the Modern Movement*, Faber & Faber, 1936; N. Pevsner: *Arch. Review*, Vol. 83, 1938; N. Pevsner: *Studio*, Vol. 116, 1938.

†Cf. *Werkbund Yearbook*, 1912, p. 34; 1915, p. 45, 123; A. Koch's *Handbücher*, Vol. *Herrenzimmer*, 1919, p. 108; Vol. *Empfangsräume*, 1914, p. 3.

THE EVOLUTION OF THE EASY CHAIR

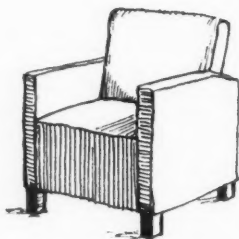
He who had already been the pioneer of clearly shaped, unadorned square furniture before the last war* showed in the Salon d'Automne of 1920 a model very close to the type to come, though with the outsides of the arms entirely wood-panelled. However, at the 1925 Exhibition he had a chair in the much discussed Ambassade Française furnished by the Société des Artistes Décorateurs, 25, of exactly the shape with which I am here concerned. Another version of it is illustrated in L. Moussinac's *Le Meuble Français Moderne* of 1925. Though some other progressive French designers joined in†, the majority of models shown at the Paris Exhibition and exhibitions of the following years was of a jagged modernistic character. Moreover, France, owing chiefly to Ruhlmann, soon progressed to a more elegant feminine style, with slender curves and precious woods.

Thus it remained for Britain to popularise the block-shaped type, when it had once found its way into this country. As far as I can see this occurred about 1930. *THE ARCHITECTURAL REVIEW* of 1930 illustrated one by Serge Chermayeff for his own house and one designed by Eden Minns for Gordon Russell's, 26. The first model in Heal's catalogue (S. 350) dates from 1931, the first in Gordon Russell's (1033) from 1932. In 1933 Heal's introduced an enlarged variation, with much wider arms and a deeper seat, similar to the one which Wells Coates designed for Gordon Russell's early in 1934, 27—obviously in the same spirit as his contemporary Lawn Road Flats mentioned above. It need not be added that this type was almost at once widely commercialised by many firms. It is very comfortable indeed for nonchalant sitting, with its low seat often slightly tilted towards the back—a feature incidentally that cabinet-makers took over from motor car manufacturers just as they took over the technique of cellulosing.

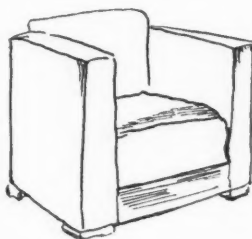
On the other hand, a colossus of this kind takes up more space than most modern rooms can spare. It appears doubtful, therefore, whether the immediate future will be with such heavily constructed chairs and not rather with the lighter ones, of the Parker Knoll or "Plan" types, which are just as comfortable, although the appearance of comfort may be sacrificed to a certain extent. But then our meals are no longer as voluminous as they were in Victorian and Edwardian days, and yet at least as nutritious in calories and vitamins. Is it not a necessary outcome of the rationalising power of twentieth century civilisation, that our easy chairs should also try to combine lightness and economy with comfort—just as our architecture does?

**Art et Décoration*, Vol. 35, 1914, pp. 18 and 19; E. Sedeyn: *L'Art Français depuis vingt ans*; *Le Mobilier*, Paris, 1921, pl. 11 of 1912.

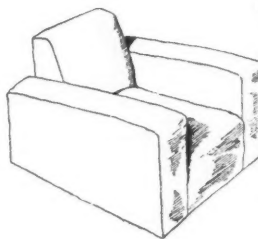
†Matet: *Art et Décoration*, Vol. 46, 1924, p. 191; Roux-Spitz in Fallot's volume on the 1927 exhibition of the Artistes Décorateurs, pl. 16; Jallot: *ARCH. REVIEW*, 1927, pt. I, p. 34; Sognot: *ib.*, p. 36.



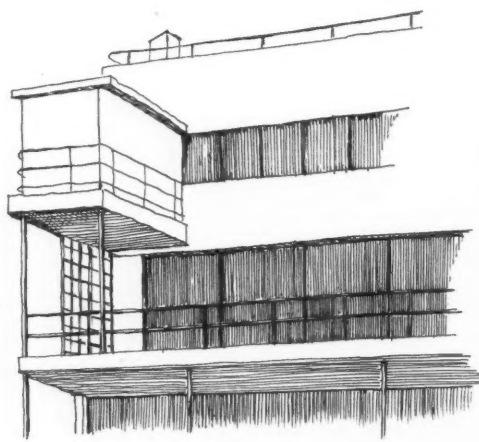
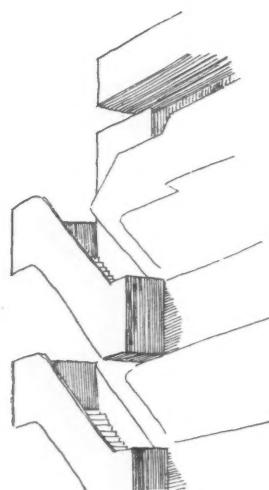
25, the modern easy chair seems to have been evolved in France. In all probability it was invented by Francis Jourdain, a pioneer of functional and unadorned furniture even before the last war. Models such as the one illustrated which appeared at the Paris Exhibition of 1925 has the straight lines though not yet the squatness of the modern type.



26, the new type though a creation of France was soon superseded there by more graceful models, whereas in England, once it had been introduced, it became until a few years ago the only popular kind of easy chair. One of the earliest examples was designed by Serge Chermayeff for his own house and illustrated in *THE ARCHITECTURAL REVIEW* of 1930.



27, another three years, and the English easy chair had found its standard shape, low and massive, such as the one which Wells Coates designed for Gordon Russell's in 1934. It marks the end of a development and seems now, in fact, after a period of unchallenged popularity in high and middle class shops and stores, to suffer from the competition of cheaper yet equally well-made and equally comfortable models of less weight, especially the Knoll (i.e., upholstered arm, loose cushion, sprung seat frame) type.



28-29, the modern style in architecture appears in two shapes, one modelled of massive blocks of concrete, the other constructed of delicate yet equally strong steel shafts. Likewise, modern seating comfort is achieved either by the massive fully upholstered easy chair of the type 27, or by such new methods as those invented by Knoll in 1928 (Knoll springs), by Breuer and Mies van der Rohe in 1925-27 (tubular steel) and by Aalto (bent plywood). All these combine lightness with resilience and achieve comfort with a minimum of stuffing.



DESTRUCTION AND RECONSTRUCTION

THE ARCHITECTURAL REVIEW SUPPLEMENT: MARCH 1942

A Theoretical Basis for Physical Planning, Part 2

SYNOPSIS OF PART ONE. The first instalment of this article, printed last month, consisted of an introductory chapter, and Chapter Two, entitled "The Planner's Aims." The former was chiefly concerned with discussing the importance of establishing some positive planning principles to take the place of the ad hoc expedients that form the basis of town-planning practice to-day, and with justifying an attempt to clarify the physical planner's ultimate objectives even while the means of achieving them are still in the melting-pot. The latter (Chapter Two) introduced the general thesis of this article, which is amplified below, and may be summarized as follows:

The primary need is for a way of defining the kinds of fulfilment that people want (fulfilment being the aim of civilization and functional convenience a mere vehicle with no fixed destination); but fulfilment is a nebulous term implying many things that lie outside the physical planner's sphere. The planner needs to be more scientific about his aims, not less so, and must decide what fulfilment means, in terms of his own technique—that is, in physical terms. To do so he must look at society actually at work as a physical affair, as a piece of mechanism, and may do well to adopt the jargon of the specialists

whose business it is to do the same—the economists. Economists say that society has three functions, which they have labelled **PRODUCTION**, **CONSUMPTION** and **DISTRIBUTION**; and it is out of society's functions that the form of its civilization develops, or what we may call the culture it achieves and through which it fulfils itself. But a culture is a humanization of a form of work, and therefore in so far as kinds of work are capable of isolation, so are the cultures that go with them. That is (to revert to the economists' terminology), if at one time problems of **PRODUCTION** dominate the scene—and dictate the social pattern—and at another time problems of **DISTRIBUTION**, and so on, these activities will also determine the prevailing culture, and "if we can isolate within our own society the aspects of it that belong to each of the three economic activities, we shall also succeed in isolating the cultures that go with them and will have done something to clarify the ultimate aims of the physical planner." One way of proving this would be by demonstrating that the chaos we find in our contemporary environment is identifiable with our failure to maintain these distinctions.

By J. M. Richards

3. TOWN AND COUNTRY REDEFINED

One or other of the three basic activities recognized by the economist, production, consumption and distribution (on which are founded three basic cultures) will, we have already stated, be found to dominate both the impulses which determine everyone's ideals and the needs which guide their actions. But this does not mean that every activity belongs to one category (and

therefore one culture) exclusively. It is much more likely that any activity under consideration will be found to be related to all three cultures simultaneously; in fact it is necessary that this should be so, if society is to function at all. The process of analysis that we are now embarking on consists in deciding where, for planning purposes, the bias lies, and affixing our label accordingly.

Before taking each basic culture in turn it may be useful to point out that it has hardly ever been the case that,

The dimmed outlines of phenomenal things all merge into one another unless we put on the focussing glass of theory.
James Clerk Maxwell, 1855.

at any given moment, all three cultures played an equally vigorous part in shaping the framework of society's physical environment. Distribution, as an activity giving rise to a culture of its own, is, on its present scale, a newcomer. In fact I hope to show that many of the evils and anomalies we are only too conscious of to-day are due to society's failure to assimilate a new distributive technique after its sudden development had upset the equilibrium of the other

two activities. But I am anticipating my demonstration that all phenomena of a kind the physical planner is concerned with *are*, in fact, related to one of these three. Let us begin with production and consumption and deal with distribution in its turn.

Production depends fundamentally on the land. When one speaks of the land nowadays, one is apt to evoke a picture of an old-fashioned world based on handicraft, but in reality of course, and in the sense that is intended here, the activities that belong to the land include up-to-date scientific ones as well as the oldest ones of all: blast-furnaces and hydro-electric undertakings as well as harvest-home. For from the land all wealth originates, and it originates in different forms according to *regional* differences of climate, geological structure and so on. The *region* is, therefore, one way of describing a kind of production. The *city*, on the other hand, may be said to find its *raison d'être* in consumption, since it exists to turn the products of the regions to the benefit of society collectively.

So the interesting thing from the territorial planner's point of view becomes immediately apparent: these two abstractions, production and consumption, are seen to bear a general relation (how exact a relation we must discuss later) to the planner's own physical realities, *country* and *town*. The producing element in society exercises its function by a process of decentralization: individual members of the community have forced themselves away from their fellows into the open spaces to dig its products out of the land. Their advance guard is the frontiersman. The peasant is the frontiersman left behind when the frontier moved on. Similarly the consuming element is synonymous with centralization. The city is an expression of the herding instinct, but one that acts automatically and instinctively because man, in one of his aspects, is a gregarious animal. He does not, in the first place, herd with his fellows in order to find a means of subsistence: he finds a means of subsistence in order to herd; that is, for consumption rather than for production—consumption of company, beer, cinemas, friendship and all the stimuli that arise from association generally.

I have already, in a previous article¹, tried to demonstrate the importance of a clear understanding of the fundamental difference between town and country, which are not different degrees of the same thing but different in *kind*, though complementary in the sense of being each necessary to the other. In that article I defined the nature of town and country in terms of the distinct culture that belongs to each—in fact in much the same terms as I have used above. I did not, on that occasion, explain how these differences are synonymous with the differences between a production and a consumption culture because it was simply the fact of the distinction that I was concerned to explain. What I did try to show was the fallacy contained in any belief that both cultures can be incorporated in the same regional plan-

ning system: "The culture of cities and the culture of regions cannot be merged. Urbanism is international, its apotheosis the world city or state, while regionalism is differentiative, the culture of place². Only by acting in accordance with the difference between the two can a balanced society (as distinct from a balanced *region*, which is nonsense) be obtained." That was only one example of the lessons that can be learnt by reclassifying our commonplaces of planning theory according to their true natures.

I am now attempting to take things a stage further by relating the planner's complementaries of town and country (or, to use the more accurate terms differentiated above, his complementaries of city and region) to the economist's complementaries, consumption and production. "Town" and "Country" are terms which have never seemed quite to fit the uses to which they were put. And now we can see why. The *city* culture, the expanding metropolitan culture, being broadly synonymous with consumption, must include certain activities that are more generally associated with the countryside. And the *regional* culture, being based on production, must include certain activities more generally associated with towns.

An example is industry. Although agriculture, the most productive industry of all, and a few others—such as mining, fishing and forestry—are literally tied to the surface of the earth itself, it is a little less obvious that industry, in the modern sense of the manufacture of goods in factories, as often as not belongs to the same category. Industry, like everything else, is simultaneously a productive, a consumptive and a distributive activity. It may be a basic extractive industry, it may consist largely in the processing of raw materials—that is, in consumption under another guise—or it may be part of the elaborate system of distributing goods and changing their physical form while doing so. Such generalizations are too obvious and elementary to be very instructive, but the important point is that industry cannot all be lumped together as one category and one problem. In each case the planner must find out which of the three cultures is dominant and act accordingly.

In spite of the fact that it now draws its raw materials from afar, it is just as characteristic of industry to be regional as to be metropolitan. In the eighteenth century industry was almost exclusively associated in the public mind with the village, and the fact that industry has hitherto been chiefly associated with town life—large-scale industry, that is to say, since the industrial revolution of 150 years ago—is not a natural phenomenon but a technical accident of factory operation³. The great industrial conurbations, in fact, are not true towns and have nothing to do with our city type of culture, but are a transitory geographical grouping round coal and iron deposits—a grouping that electric power and other developments are at the moment in process of liquidating.

In the same way that much of industry

1 **TOWN.** "By town we mean . . . Metropolis, the world city . . . Now the most characteristic thing about Metropolis is that it is not a local phenomenon, not a regional product. This is apparent from the sources of its subsistence. No region however large, nor even a whole country, could sustain a city like London, which subsists on international trade, international finance and international processes of distribution. The modern city is inseparable from the international network of transport and finance which is almost synonymous with the modern world. It is the epitome of the gregarious trend in society. . . . Its ultimate destiny is to destroy all geographical limits. Individuals first group themselves together, then city draws to city and the transport line endeavours to put all activities into communication, to annihilate space. . . . By its very nature the city has everything in common with other cities, however distant they may be geographically, and least in common with the other kinds of life that go on in the tract of territory it happens to be situated in.

"A city, in fact, is not a country town writ large. It is a product of different forces . . . as we shall see, of quite opposite forces. (We are, in fact, seeing it in the article alongside when we re-define the said forces in the economist's terms.) . . . To-day these cities dominate our civilization. . . . We live on the fruit of commerce, our towns are part of the machinery of commerce, the rest of the machinery being the markets—scattered all over the world—and our communications with them, without which commerce would revert to the give-and-take of local trade and provide no sort of a livelihood for a populous nation.

"The embodiment of the urban idea, then, that which we have labelled the city, is by definition something outside the regional economy. It no longer

lives off the region in which it is situated, and the difference is not a matter of mere size but of nature."

COUNTRY. "That which is rather misleadingly called the country but is in fact the land itself, the physical substance out of which the region is carved. The character of the country, and the villages and towns belonging to it, is quite different in *kind* from that of the city. These former do not belong to an expanding world but a contracting one. The whole essence of a region is that it is an expression of differences, not similarities. Whereas, other things being equal—which, of course, they never are in practice—cities tend so much towards sameness that even natural differences of climate become submerged in the artificiality of the city's synthetic equivalent of nature, and differences of racial temperament merge into cosmopolitanism, one region is distinct from another just *because* of differences of climate, geological structure, traditional local culture and so on. . . . More differences and more subtle distinctions of difference make themselves clear, substantiating the centrifugal character of regions. . . . The purpose of regionalism is to break the earth down into its components. It does not lend itself to larger applications but to ever smaller and smaller ones, digging out and sifting apart the wealth and character that is latent in things and substances. . . . In spite of the ubiquity of its modern scientific guises it is still, fundamentally, the old circumscribed country culture coming up again to the surface after a long eclipse.

"And that which eclipsed it . . . was the metropolitan culture which we have already discussed in its character as an international idea. The two, though opposite in character, are complementary and necessary to each other."

The Architectural Review, July, 1941.

2 When J. M. Synge, in his preface to *The Playboy of the Western World*, wrote that, "the death of language, the substitution of phrases as nearly impersonal as algebra for words and rhythms varying from man to man, is but a part of the tyranny of impersonal things," he showed his understanding of

the fact that one fundamental change was at the root of all the decay of individuality that he was deploring. If (which God forbid) he had been writing in the language of sociology he would have said that the international type of culture was predominating too much over the regional.

3 It should be noted that throughout history industry has shown a habit of attaching itself alternately to rural and urban forms of planning, chiefly for organizational reasons: i.e.,

first to the manorial (or regional) system, then (through the Guilds) to the town centres, then back to the village and cottage industry and then back once again to the factory town.

has to be included in the *regional* culture, so do certain rural activities have to be included in the *city* culture: the use of the countryside for pleasure, for example. It is the city-dweller, not the countryman, who enjoys country walks, which are consumption of a commodity—the surface of the land—not production from it. So National Parks, sea beaches, playing fields and health resorts are part of the city complex. Not only are Brighton and Bath extensions of the metropolitan world, but the Norfolk Broads, Whipsnade Park and the Highlands of Scotland (under the present dispensation) must be classified as belonging to the city culture. Similarly with the arterial roads and the railways that link them up, but these are better treated under another heading that we shall come to shortly.

Such examples as the above could easily be multiplied, but they must serve to show that the planner's "town-country" jargon keeps alive a false antithesis—or one so approximate as to be generally misleading. A couple of centuries ago, when most industrial processes as well as the extraction of raw materials, were still carried out in rural areas, the town-country label was a good enough equivalent of the consumption-production abstraction. But planners who talk to-day as though the issue before them was still simply one of town versus country, falsify the whole picture.

By substituting for the town-country issue the two forces we have already begun to define, the international city culture and the local regional culture—opposites that in true dialectical fashion are each necessary as complementary to one another, and whose inter-action makes the world go round; opposites, also, that do not operate over different parcels of land but share the same land—by substituting those more scientific categories and justifying them by referring back to the economic motives that give rise to them, we are taking the first step forward. But in order to complete even the bare outline of the picture we are trying to bring into sharper focus, we must refer once again to the elementary abstractions of economics, for one of our three categories we have so far only mentioned in passing.

4. THE IMPACT OF A NEW TECHNIQUE

Consumption and production have always, of course, been accompanied by the third of the economist's fundamentals, distribution. In fact it is just as true to say that consumption and production are themselves the product of the particular distribution machinery that is in being at the time, as that supply and demand provide the necessity for distribution. But until recently the way the latter functioned was relatively simple. The farmer took his own goods to market and the housewife bought from him direct. Even at its most complicated it was merely an extra cog-wheel introduced into the machinery of existence: the merchant and the

money-lender growing fat on the increasing separation of the town-consumer from direct contact with the country-producer.

But the most striking feature of the changes that have taken place since then, changes that have been constantly accelerating themselves since about two hundred years ago, is the growth of the complexity of the distributive technique, with the result that distribution has begun to assert itself much more forcibly in its role of a third and independent culture. I do not want to trespass on the economist's territory, still less on the social historian's, but I do not think it is too naïve an interpretation of their summary of events to say that the growth of a powerful middle class, which is the characteristic development of the period on which I am looking back, is synonymous with the new importance of distribution, and the impact of its new technique. The business of bringing together the producer and the consumer, instead of being a convenient piece of organization, became during this period a world of its own, a world that not only made itself responsible for the whole carrying out of trade—direct contact between producer and consumer having almost disappeared—but populated itself with numerous other kinds of people, pursuing activities that had grown out of the problems of distribution and commerce in an increasingly complex society: the stockbroker, the tram-conductor, the income-tax man, the garage-mechanic, the advertising man; their name is legion and the job of all of them is simply to oil the distributive machinery.

The question we naturally ask ourselves is, how is this third category reflected in the physical embodiment of society of which we are trying to build a picture? The consuming impulse has given us the international city culture. The producing impulse has given us the diversified regional culture. What sort of culture has grown up with distribution?

The answer seems to be, none. There is a physical machinery of distribution in the form of the roads and railways that link up consumption centres with each other, or link each consumption centre with the producers they draw on. But these are only the instruments; there is no recognizable culture based on the peculiar needs and temperaments of the distributive complex; and it is an arguable thesis that the chaos we find ourselves plunged into to-day is largely the direct result of this new force having found no expressive outlet. In a couple of centuries distribution has grown from a simple mechanism to an activity occupying as many hands as the two other activities; and it may be added that its tendency is inevitably to increase in complexity and in its influence over our territorial pattern. Planning, however, which is by definition the physical control of the forces into which society resolves its energies, caters all too inexactly for the first two forces and persistently falsifies the third.

The result is the chaos we see all around us, and our thesis is borne out

by the fact that if we examine the places where this chaos is most in evidence we shall find that they all relate directly to distribution in one shape or another: the ribbon development along the arterial road, for example, and the suburbs that spread round the outskirts of all our towns. In the latter are the homes of the middlemen (or distributors), who are not true town-dwellers because they do not congregate in towns as a result of their gregarious instincts; on the contrary they hate town life and are always pursuing a make-believe country life. They would, however, detest real country life as strongly as they detest town life. They are only where they are because there was no other place for them in an unplanned society, except the fringes of the population they depend on. In these outlying districts, the village market-place turned by circumstances into one section of an arterial road can be said to exemplify in a single picture both the increase in the significance of the distribution culture and the progressive disintegration of society's functional pattern.

The distribution culture in its at present unassimilated state is, in fact, the key to the modern planning problem. That is, we live in an economy whose chief problems are distributive problems. Now we adopted the label, distribution, ready-made in taking over the abstract jargon of the economist. But in the wider, but at the same time more specific, world of territorial planning this is rather a misleading term, as it is in economics. To the Man-in-the-Street it only suggests the distribution of goods, whereas the increasingly forcible impact of our third culture, though coinciding with the growth of trade, is a phenomenon of much wider significance. Translated into physical planning terms, the abstraction, distribution, becomes the function, *communication*; and not only in its literal sense of transport and travel facilities but in its complete sense of the contacts which a community maintains between its different parts, which again involves the distribution of the parts themselves. This is, of course, the sense in which economists have always used the word.

At this stage it becomes apparent that the nature of the relation of this third force to the other two is that of the machinery which enables them to operate: a truth the planner recognized when he defined distribution as the product of supply and demand. Its new importance, as I have already said, lies in the fact that at one time the relationship of consumer and producer was so obvious that distribution was almost automatic, easily improvised and raised few problems of its own; and that nowadays its complexity has become so great—and the share it demands of our energies so large—that it has raised innumerable new problems, problems which are, in fact, the unsolved problems of the modern world.

For it is obvious that this growth in the importance of distribution is synonymous with the growth of the necessity of more highly specialized planning, a



The eighteenth-century ribbon town: coming into Newmarket.

4 What most struck me was the general air of cleanliness, the beauty of the country, its high state of cultivation, the solidity of the food, the excellence of the roads, the coaches, and post-chaises, and the modest tariff of the latter. Above all, I admired the perfect ease with which one could pay for everything with a mere scrap of paper. The swift-

ness of the horses, though they never go at anything but a trot, delighted me, and so did the architecture of towns like Dover and London, Canterbury and Rochester, populous cities that might be figured by immense lengths of tubing, for they are very long and very narrow.—Memoirs of Jacques Casanova de Seingalt, 1762.

5 Many other episodes in the history of our physical environment could be recapitulated in similar terms, so much so that we can hardly go too far in identifying the physical planner's problems with those of communication—or perhaps an exacter word would be contacts. And it is only with the physical planner this article is concerned. The social planner (of whom the physical planner is a subordinate) has, of course, to consider simultaneously many more factors and adopt many more tech-

niques. His activities, amongst other things, include exercising control over production and consumption themselves—partly by education, partly by exploiting changes in fashion and habit and partly by expedients of finance, taxation and administration. Rationing is an obvious example of the kind of control over the things people consume that a planned economy sometimes feels called on to exercise. Advertising is another form of control usually exercised quite irresponsibly.

result of the new complexity of human society. Or, to put it another way and to return to our more specific terminology, *physical planning is in fact communication*. Its business is to create the necessary utilities for social contact. So the physical planning problem is, and always has been, the problem of ensuring that the communication machinery that correlates the two worlds of production and consumption works as smoothly as may be, both in its function as communication and in the physical embodiment of its own self-contained activities.

Let us take an illustration of what happens when a static planning structure suffers the impact of the increased load modern distribution places on it. An obvious case in point is the market town, since the market town was the first clearly marked example of the distributive factor evolving its own architectural form (though other less obviously related phenomena could be said already to belong to the same culture in its embryonic state: the Roman villa, for example, and the feudal

manor). This market (which was responsible for ending the domination of the manor) was so simple a conception that it took its place naturally in the old social complex without introducing any new factors. In those days the English town was a logical and satisfactory affair, but as long ago as a couple of hundred years, when the improvement in travel facilities brought the individual market town into the web of the national transport pattern, its nuclear shape became obsolete. As typical of the eighteenth century as the market town was of an earlier system, is the ribbon town (or coaching town) consisting of the old village high street magnified into a built-up section of a post-road, its central culminating point being the coaching inn, the stopping place of the coaches which gave this new type of town its importance to the world outside. This ribbon town of the eighteenth century is a typical English phenomenon. Colnbrook, Marlborough, Thame, Reigate, the pattern is ubiquitous.

Topographers are apt to speak of towns like these with affection and many of them possess the grace and charm we associate with Georgian building, but in spite of the pictorial appeal of the regular sequence of Georgian façades, of the enhanced charm of individual taste when it flourishes within the disciplined framework of a consistent idiom and of its sense of civic unity, the fact remains that the eighteenth century ribbon town⁴ is not an urban development at all. It is, in fact, the first example of our later habit of identifying (and confusing) the idea of urbanism with any concentration of bricks and mortar. It is only an early form of the ribbon building that has since ruined the shapeliness of our countryside, for it must now be acknowledged that in spite of Georgian architecture's reputation the English have not built good towns since they were first confronted with the problem of adjusting themselves to this disintegrating influence. However refined and expressive the architectural idiom of Georgian towns, considered as planning they seldom grew beyond the primitive stage of automatic response to external stimuli—with the exception of a few places like Bath and Brighton and a few residential quarters within other towns. In fact as towns they never were *planned*, and we have already defined physical planning as control of the forces of communication⁵.

5. THE THREE CULTURES

Before he can reintegrate his raw material according to the differences they display, the planner will want to know a bit more about the nature of the differences between the three cultures we have been talking about. It should be possible to examine the three cultures in the form of some typical products of each. It should be possible, for example, to isolate a kind of individual, a style of architecture and landscape—or whatever

we may think useful—typical of a production, a consumption and a distribution culture, even if we might have immediately to spoil the simplicity of the picture by reminding ourselves that nothing is wholly one or the other and that such anthropological or architectural specimens are only of interest to us in so far as they illustrate the culture that produces them. For we have already decided that sections of the population, as such, provide the planner with no directive more profound than the efficient control of his own make-shift machinery. An individual is just as much—and no more—the product of his culture as the culture itself is the product of his social aspirations.

Let us, for purposes of illustration and of convenience, call the three equivalent products of the three basic cultures the P-man, the C-man, and the D-man. These are the expression in terms of human nature of our consumption, distribution and production cultures respectively. Such labels are, of course, entirely superficial, as is the amplified definition of these types printed on the facing page⁶. The latter consists of a classification of symptoms and reactions more than anything else, and is intended only as an illustration of the kind of distinction of which we are trying to analyse the importance. It cannot be made too clear that there is no such animal as a pure P-man or C-man or D-man: everyone is a bit of all three. Nor is it suggested that the planner should plan for types of people. He should plan for the environment that will best foster the continued growth and development of the cultures which arise from the work of society—cultures which we can also see exemplified in temperamental characteristics. Nevertheless, such distinctions do throw some light on the planner's aims. It is pointed out alongside, for example, that an individual can only fulfil himself through the particular culture to which his *bias* tends. And we can therefore state as an axiom that the idea of the balanced personal life in the sense of a life equally divided between the pursuit of all three cultures is, like the idea of the balanced region, a fallacy. A compensatory swing - and - roundabout way of living—a four-day week in town, for example, for the factory worker, together with a long weekend in the country, or long holidays in rural camps or farms—may or may not bear any relevance to actual needs. A consistent way of life is wanted⁷ within which the individual can fulfil himself after his own bent.

It might be argued that factory life is incompatible with fulfilment in any form, but it is in fact, of its own nature, so different from more primitive forms of production? All producing work is founded on the repetition of apparently dull and trivial actions—certainly this is so in the case of the much-envied routine of the farmer; and in factory life this is relieved in many instances by elements of drama and sociability. The unsatisfactory thing, however, about a great many more cases under present-day conditions is that increased special-

ization has changed the individual's share in manufacture from making something to minding a machine, so that he ceases to enjoy any creative satisfaction. It is a fact many people, beginning with William Morris, have deplored. Translated into our new terminology it means, among other things, that modern manufacture tends to become a D activity. Society to-day, for better or for worse, is demanding an enormous increase of D-men at the expense of P-men. The industrial chaos we are familiar with was perhaps inevitable while society was in process of transferring so much labour so quickly from the pursuit of one culture to another.

Just as the rise of the D-man has produced the big new problems of territorial planning, the frustration of the P-man in all of us is, at least temporarily, the big problem of modern sociology. We have already mentioned the process by which industry was first drawn into the city's geographical embrace by an accident of transport and machine-power evolution, and how the population that served it subsequently evacuated itself to the city's fringe. As a result the by-law town, which industry's invasion of the city imposed on it as the typical nineteenth century urban development, disappeared only to re-appear at the city's perimeter. But the P-man's culture had no better outlet in Becontree than Bethnal Green, and the move only resulted in the threat of universal suburbia—a type of suburbia, by the way, to be clearly distinguished from the other suburbia, the fantastic world of make-believe which is to-day's expression of the D culture. The P-man's urbanism was the result of a forced gregariousness, unlike the C-man's creative gregariousness. It was, as D. H. Lawrence said (and he was the perfect P-man so had a right to complain), the gregariousness of rabbits, not men. But the survival of the P-man in his original individualist character in a world in which industry is increasingly a D activity is only a matter of wish. The fact is that the problems of modern society are mostly distributive ones and the P-man at present is at a discount.

How the P-man is to be re-rooted in the land⁴ or how, alternatively, other P outlets are to be made available, is a matter that cannot be discussed while we are still dealing only with the individual products of P culture. It concerns P culture itself and is one of the objects of planning in terms of cultures. What is certain is that it cannot be achieved by any of the means the town planner has used hitherto. The distinctions we have already made clear ought to show us why. The means he has used hitherto have always been C means (or D means in the case of the Garden City fan). The modern planner is a C-man through and through. He tends to look at the planning problem only as an urbanist¹², seeing it as one of rehabilitating the city—the city being to him the symbol of the only true culture.

But the P problem is not an urban one. It is not one of improving the industrial town or decentralizing it to form a lot of little industrial towns. By

ceasing to treat it as such, the planner will find himself taking the first step towards dealing with modern problems in a real way.

The solution perhaps lies, as we have suggested, through the at present anomalous position of the D world², and in general in the need for proper differentiation, the urgency of which need recent history makes clear. The penalty society pays for its failure to cater fully and simultaneously for all its elements,

according to the diversity of their character¹⁰, is the feeling of *frustration* which is so typical a contemporary symptom. And another penalty is the *sameness* which tends to spread over the whole surface of the land. It has, indeed, become the new dread of all far-sighted planners that however well they may succeed in raising standards of design and accommodation, such standards will not help to check the even monotony of development that is fast

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In trying to isolate, for purposes of illustration (but not for planning purposes) the human types produced by the production, consumption and distribution cultures, and labelling them the P-man, the C-man and the D-man respectively, we may appear to be engaging on a task that the very diversity of people makes insuperable. But we do, in fact, in everyday life, to a considerable degree, classify the people we come in contact with from the point of view of their cultural allegiances; that is, we classify them in a way that cuts right across the class and other conventions: when we speak, for example, of the "strong, silent man," the "highbrow" and the "hearty." Here we have immediately three basic types which correspond pretty accurately to our own primary economic classifications. Let us, not forgetting that in real life everyone is in fact a mixture of all three types, but at any given moment usually shows a strong bias towards one or another, examine their characteristics more closely.

It should perhaps be repeated that the only sense in which we are regarding people as types is that which identifies what a man is with what he *does*. Our three classifications of function leads to three classifications of culture, and our three types are those that fulfil themselves through the three equivalent cultures.

THE P-MAN. What kind of culture is the P-man the product of? That is, in what does he seek his fulfilment? As we have seen, his culture is a culture of place. His activities are based on agriculture (in the widest possible sense, which includes not only farming, but the extractive and processing industries in a gradually diminishing degree of productiveness till they grade away into the predominantly distributive ones). Throughout history, his has always been the old earth culture, mystical in its character, centring always round the mystery of creation; its art is symbolical and its architecture (though we must deal with this in more detail later) is that which is inaccurately termed romantic. Gothic architecture was one of the great achievements of a P culture. Its political structure throughout history has been feudal, Tory or patriarchal, and this is its tendency even in modern times. The instinct of the great modern industrial

producers, the Cadburys, Leverhulmes and Fords, to impose a paternal stranglehold on their employees is most instructive in this connection.

But the main point is that the P-man is not only a producer by trade; he is a producer by nature, which means that his personal fulfilment lies in production; it is a temperamental bias which colours his whole life. Who has not wondered at the agricultural labourer who comes home from a long day's work only to set to again digging his own garden? And how many humanitarians have not wanted to ease him of his toil and provide him with a convenient bus to take him to the cinema, or at least with a wireless set? But the humanitarian is himself a city product, a C-man, and therefore unable to understand that other people's needs are not his needs. The man with a P bias does not want these typical articles of a C culture. He is not a consumer, except of those bare necessities that keep him alive, so to him consumption, even in whatever degree of luxury, is not a substitute for a life of production.

At first sight this may sound very like the patronizing superiority we are all too familiar with: "it's no use giving the working-man a bath; he'll only keep coals in it." But let it be understood that I am not trying to deprive the P-man of anything. Let him have his wireless set, if it will really content him (if it does it only means that the particular individual in question is not in this respect a P-man), but do not let us remain satisfied that by persuading him that a wireless set is what he wants—or, as is more likely, allowing advertising salesmanship to do so—we are providing for him all that a humane civilization can and should provide. I am not proposing to deprive him of anything but demanding something more for him: an outlet for his own P nature, through which he can find fulfilment of a kind that wireless programmes will never provide. The quality of the programme, of course, has nothing to do with it. If the B.B.C. programmes were entirely devoted to educating and amusing the agricultural population they would only make matters worse by tempting it more strongly to listen. This question of whether the countryman should be educated into having a wireless set is relatively trivial. But it is typical of the crying need for

differentiation, and the disastrous effect of the radio on the countryside is equally typical of the chaos our failure to differentiate is liable to plunge us into. Similar arguments could be put forward in respect of the cinema (but not amateur theatricals), the cheap motor-car, the literary education and even the public library. Don't withhold these blessings from anyone, but don't blackmail the P-man into believing that this is the only form of "education," and the way his own salvation lies. P culture, finally, is a culture of individualists.

THE C-MAN. The C-man is just the reverse of the P-man. He is gregarious, the townee. Whatever his work (that is, whatever he is paid to "produce") he prefers that his life in general should be one of assimilation. He is the intellectual and the aesthete, the lawyer and the politician, the writer and the financier, the Whig rather than the Tory; all those particularly who earn their living by the use of forms or symbols divorced (as far as a physical world allows anything to be divorced) from physical production. His is the unifying, as distinct from the differentiating, culture, which builds cities and civilizations and is founded on the things of the *mind*, itself the unifying principle. To the C-man society means its political structure and systems, and it is he in particular who has always seen political progress as progress towards that egalitarian, international state which is the only one that can satisfy the mind's sense of one-ness. His art is abstract and his architecture classic (as distinct from romantic). The Jews, with their insistence on the one-ness of God and of finance, with their high intellectual and interpretive and their comparatively low creative capacities, and with their international outlook, are the historic embodiment of the C culture, but exactly the same characteristics are typical of all so-called "cultivated" people to-day, the reason being that for a hundred years and more all progress in civilization has been associated with the intellectual life, that is to say, with an aspect of the C culture. That is all to the good, the essence of the C culture being consumption and the social or cultural arts being amongst the highest forms of consumption, but the C-man's dominating position has had a bad effect so far as the P and D cultures are

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concerned, forcing P and D men into the C mould as the only one that has, since mediaeval times, been organized to provide a high level of development.

It may be pointed out that as a result of this misunderstanding the types associated with C culture tend to be what we are accustomed to call the leisured classes—so much so that the word "leisure" has been perverted to denote C activities only.

THE D-MAN. The culture that produces the D-man has nothing in common with that which produces the C-man and not much in common with that which produces the P-man, though with the latter he has often been confused. He is an extravert; a materialist in contrast with the mystic whom we find at the basis of the P culture. The P-man enjoys his sport, but the D-man his sports. He is the life-long games-player, the "hearty" who judges everything by its physical perfection, whether motor-cars, film-stars, or his own kind, in whose good-fellowship he indulges so irrepressibly. The playing of ball-games, it may be noted, fits in especially with the D mentality. Games like football are not producer games and have never been popular amongst country-

men, who would rather do something useful (i.e., productive) with the expenditure of so much energy. Nor does the C-man feel the same need of exercise. The ball-game cult coincides with the rise of the D-man. The passing of a ball is pure D symbolism, the D-man's object in every context being to defeat the opposition (of nature or his own competitors) by speed and skill.

The D-man's god is physical success; his political instincts are towards anarchy disguised as liberalism (or, when he is thwarted, towards Fascism); his system is *laissez-faire*; his ethics enlightened self-interest and his philosophy the survival of the fittest. He is the tradesman, the merchant, the business man, the capitalist (as distinct from the financier, who is a C-man), the entrepreneur, the Freemason, the technician. His goal is the perfection of society as a physical structure (that is to say, as a system of contacts). The so-called "Americanization" of modern life, often deplored in clubs, is largely, for reasons we cannot go into now, identifiable with an extension of D influence. I have already suggested where the D-man is to be found in this country: in the unassimilated world of modern commerce, on suburban golf-courses and in the road-

houses that go with them and with his own hospitable gang-mentality. For to-day he is parasitic on the C-man's territory (he attaches himself, that is to say, to the fringes of the metropolis) in the same way that when he first came on the scene he was parasitic on the countryside in his capacity as the maker of market towns. (As we have already seen, the country town and the city are different in kind as well as size, and this is because one is a product of D culture and the other of C culture.)

The character of the D culture may perhaps be summed up by pointing to one contribution it has made to social evolution (or, rather, two contributions which are in fact opposite facets of the same thing). These are *competition* and the *team-spirit*. Public-school education, with which the latter is so closely associated, is largely an education in D culture. That is why it is condemned as philistine by those to whom cultivation only exists in terms of C culture. The team spirit represents an achievement the C-man would say was impossible: the triumph of anarchy over itself. E. M. Forster's *Howard's End* contains a good description of the clash between the D type (the Wilcoxes) and the C type (the Schlegels).

unit. To separate each activity into a water-tight compartment would be a negation of all that society stands for; but to provide an identical environment for the development of each type of culture, ignoring the different nature of its aims, would be equally a negation of all that planning stands for.

Now what characteristic plan types are suggested by the character of each and by the visual expression which is its by-product? It must be remembered that we are concerned here to lay down principles, classify ideals, and in general to affix labels, not to produce anything in the way of plans. The latter can never be hypothetical; they must always follow an application of principles to the precise circumstances of the case and must, of course, be worked out in relation to the means at hand as well as the ends in view.

Let us take an example from city culture of the sort of principles we may arrive at. The chief characteristic of the city culture is that its physical nature is centripetal; density is not merely an attribute, it is its whole essence". People criticize the close-packed alleys of the city of London as though they were an evil in themselves and as though the only thing to do was to substitute for them broad axial boulevards, vistas and wide open places. But close-packed alleys are of the essence of true urbanism; all that is wrong is the detailed site planning, which nowadays is a straightforward scientific matter of light-angles, orientation, access levels and traffic-density; only the enclosed court (for these same technical reasons) is, generally speaking, an obsolete form. City planning is a matter of grouping, with its dense nuclei alternating with open spaces, either to accommodate the city's crowds (or to park its motor-cars) or simply to give it air to breathe, possibly utilizing for this purpose such provision as has to be made for productive activities: market gardens, for example, forming the lungs to administrative districts.

The city, again, is cellular. Like the Bloomsbury Square or the American skyscraper apartment-house—which is Bloomsbury stood on end—it conceals its variations of personality behind an impersonal façade. Outside the city, repetition means monotony; inside, it means cohesion and a true expression of its sociability. Given standardized units, its monotony, once more, can and should be avoided by intelligent site planning, which depends on local conditions. Although continuity of façades is typical of the city, streets in the sense of corridors are not. Its ideal shape is the sequence of squares and courts in which social life has always fallen. These are all typical forms, be it understood, not of everything that occurs within the city, but of those activities that we have labelled as belonging to the city or metropolitan culture and have described as sophisticated, aloof and international. That is, those activities which have a *bias* towards the metropolitan. Within the same area are local phenomena catering for the regional culture and displaying

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Lord David Cecil's description of the Whig tradition of a hundred years ago, which provides the opening theme of his book *The Young Melbourne* (Constable, 1939) is also a description of consumption culture in its most civilized and aristocratic embodiment. For the traditional difference between Tory and Whig is also the difference between the production and consumption outlooks, and the following passages are especially illuminating because they describe the Whig in a rural or regional setting which is more normally that of the Tory.

The Whigs' taste was in harmony with the ideal that guided their education. They learnt to admire the grand style in painting, the "correct" in letters, the Latin tradition in oratory. And in everything they paid strict attention to form. Since life to them was so secure and pleasant, the Whig aristocrats tended to take its fundamental values very much for granted; they concentrated rather on how to live. And

here, again, their ideal was not an artless one. Their customs, their mode of speech, their taste in decoration, their stylish stiff clothes, are alike marked by a character at once polished and precise, disciplined and florid.

Yet—and here it is that it differs from those of similar societies on the continent—theirs was not an unreal life; no Watteau-like paradise of exquisite trifling and fastidious idleness. For one thing it had its roots in the earth. Founded as their position was on landed property, the Whig aristocracy was never urban. They passed at least half the year in their country seats; and there they occupied themselves in the ordinary avocations of country life. Their days went by, active, out-of-doors, unceremonious; they wore riding-boots as often as silk stockings. Moreover, they were always in touch with the central and serious current of contemporary life. The fact that they were a governing class meant that they had to govern.

The Whig nobles were never provincial and never uncouth.

They had that effortless knowledge of the world that comes only to those who, from childhood, have been accustomed to move in a complex society; that delightful unassertive confidence possible only to people who have never had cause to doubt their social position. And they carried to the finest degree of cultivation those social arts which engaged so much of their time.

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I have already, I trust, made it clear that I am not advocating "back to the land" in the sentimentalist's handicraft sense, but in the most scientific sense.

9

INJUSTICE TO THE D-MAN.—Show me a man who cares no more for one place than another, and I will show you in that same person one who loves nothing but himself. Beware of those who are homeless by choice.

Southey ("The Doctor").

erasing those distinctions which once gave character to places; that the landscape of the future is doomed increasingly to resemble universal suburbia¹³.

6. A NEW PATTERN

It cannot be too strongly emphasized that the new pattern we hope to see

shape itself as a result of this re-classification of the planner's social material and the re-definition of his physical aims, is not a system of segregation to be imposed on the infinite diversity of society. Our three categories in the shape of three basic activities and the three cultures that embody them, occupy the same territory and are often carried on simultaneously by the same person or the same social

its characteristics: individuality and uniqueness on the one hand, and on the other the typical extravagance of ground plan that scatters trees over an orchard or machinery over acres of workshops or, again, the bizarre, fair-like shallow-rootedness of the distributors' suburbs. But what our present-day city planning suffers from more than anything else is an over-weight of elements belonging to other cultures which a proper re-classification may help us to draw off—or, at any rate, to re-site.

A detailed analysis of such planning principles as can be elucidated by this method would make a treatise on its own, but we can sum up our essential purpose by repeating that although the same territory may be covered by development representative of all three cultures, although production in the form of industry may in different circum-

stances take place either in a setting of buildings or in a setting of fields (that is, either in what the old-fashioned town-planner would call "in the town" or "in the country") and production in the form of agriculture may penetrate built-up areas as market-gardens and orchards; although consumption may mean the consumption of space and fresh air in a National Park or week-end cottage or of distance on an arterial road just as much as the consumption of entertainment in a cabaret or winks at a coffee-stall; although the agencies of distribution may site themselves both in the docks and warehouses of the Pool of London and behind the hollyhocks in the garden of the village post-office, to say nothing of the more specialized and characteristically modern distributive centres, the hospitals and schools which are both urban and rural;

in spite of this overlapping of the three kinds of culture, the key to the production of a lucid ground-plan to meet the demands they postulate is to plan in terms of the essential difference of each.

Failing this, the effect is that of three photographs taken on the same negative, with the result that three otherwise clear pictures only produce an effect of inextricable confusion. Or, to put it in another and more positive way, the process I am recommending to the planner is much the same as that performed when a coloured picture is analysed for reproduction in a magazine by the three-colour process. What has to be done is to separate out the three primary colours which science has taught us are the basis of the multitudinous colour-effects we actually see. The resulting analysis does not look like anything very much in itself, but if the

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The system of redifferentiation that is the subject of these pages can also be illustrated in the architectural products of our three primary cultures. Although it is the ground-plan of an intelligible physical structure that we want to analyse, not its mere outward appearance, to describe the latter may be helpful since it illustrates cultural characteristics in terms of the planner's own material.

In a previous article, from which I have already quoted, I made an attempt to differentiate between the architectural expression typical of the regional and metropolitan cultures—cultures which we have now identified with production and consumption respectively. I quote some passages from it:

"Historically the **METROPOLITAN** (or C) culture expresses the personal taste and scholarship of the educated architect and connoisseur; contemporaneously it exploits to the full the abstraction and impersonalization of modern technics. Historically it is represented by Palladianism, the Greek Revival, stylisticism and academicism generally; in modern times by the architect-

ture especially of Le Corbusier, whose buildings literally detach themselves from the soil and go all the distance possible to a poetic abstraction of form. In a word, the expression of the city culture is intellectual and synthetic.

"The visible expression of the **REGIONAL** (or P) culture is in all respects the reverse. Historically it is the vernacular or peasant architecture, evolving out of the usages of craftsmen. It is anonymous and non-intellectual (what we call the Renaissance was as much as anything else the international idea asserting itself over the local idea). Its forms are instinctive rather than imposed. As distinct from the eighteenth century sophisticated idiom of the city, it is the Anglicization of a Renaissance vernacular which quickly acquired regional characteristics, and is found not only in the shape of the ubiquitous domestic architecture of our country towns but also, significantly enough, in the shape of the early industrial architecture of the Derbyshire dales or the Stroud valley—of the happy days of industry after it escaped from its first urban stranglehold in the shape of the Guilds and before it was seduced into the factory concentrations which our calling by the name of cities has done so much to confuse the issue. Regional architecture has been accustomed to use natural rather than synthetic materials—materials which mellow and sink into the landscape rather than those which shine in the sun and are kept perpetually brand new. (We are speaking of historical times, it must not be forgotten, before technological developments arose that now prevent building methods from being regional in themselves.) The work of C. F. A. Voysey was an attempt to rehabilitate it in recent times. In even more recent times it is well expressed in modern Scandinavian architecture, and

in that of Frank Lloyd Wright as distinct from that of Le Corbusier. Where Le Corbusier's buildings detach themselves from the soil and aim at impersonal abstraction, Wright's cling to the ground and aim at organic personification of local needs and materials. In a word, it substitutes the quirks of local variation for the standardization and unification of urbanism."

The Architectural Review,
July, 1941.

As for the visible expression of our third culture, the **DISTRIBUTIVE**, the trouble, as we have seen, is that it has been neglected. The machinery of distribution, it should be made clear, though it has achieved a direct enough modern expression in the sweeping scale of our arterial roads and in many of the engineering wonders of modern times, does not wholly belong to the culture typical of distributive activities. It is also part of the complex of the city culture, and its aesthetic virtues must be assigned to metropolitan influence. The arterial road is still a messy affair, but in places it has emulated some of the grand impersonal achievements of the metropolis, being one of the lines along which the latter maintains its international character.

There are, however, certain aesthetic achievements, of recognized merit, to the credit of the distribution culture—the elegant style of modern window-dressing, for example, and the subtleties of period pastiche (for which latter the term "window-dressing" is appropriately used as a metaphor), and possibly the art of camouflage; but in general all we can find is evidence of architectural confusion or, at best, evidence of the blossoming out of various architectural phenomena that can be said to represent

distribution culture, but whose characteristics are so difficult to disentangle from characteristics generally attributed to "taste" that they are not recognized as architectural phenomena in their own right.

The clue to what I mean is the word pastiche, which I have already mentioned as defining a typical D-product. Temperamentally, the D-man appreciates the pastiche element only in architectural style. For him architecture is period style: the stylistic costume fashionable at a given moment. He values it, that is to say, for its associational qualities. So when the man of discrimination—that is, the sophisticated C-man—complains of the vulgar, depraved taste he sees in the D-man's suburban hide-outs, he is merely falling into the error of judging another culture by his own. The D environment is one of fantasy and make-believe: hence the variegated scenic (though horrible architectural) qualities of the Great West Road; and hence the D-man's toy-shop suburbs, with that most difficult of all contradictions for the C-man to refrain from condemning: the individualistic manor house—or miniature edition of it—stereotyped in its thousands; and hence the conflict of business architecture, wherein the hard-headed processes of debit and credit conceal themselves unobtrusively behind the aristocratic columns of a prince-bishop's palace.

11

THE COMPLETE C-MAN.

Emigration was at this time a common topic of discourse. Dr. Johnson regretted it as hurtful to human happiness: "For," said he, "it spreads mankind, which . . . lessens the comfort of living. Men, thinly scattered, make a shift, but a bad shift, without many things. . . . It is being concen-

trated which produces high convenience."

Boswell's "Journal of a Tour to the Hebrides," 1785.

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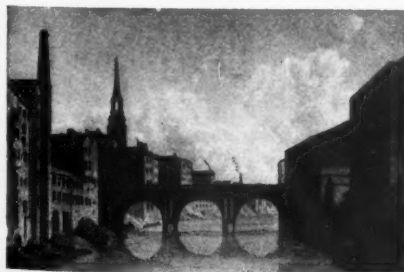
THE URBANIST SPEAKS.

The centres of great cities are like an engine which is seized. . . . Try and visualize exactly what is the phenomenon of the great city. . . . The whole national organization depends on it, and national organizations involve an international organization. The great city is the heart, the active centre of the cardiac system; it is the brain, the directing centre of the nervous system, and all its country's activities, all international events, are born in, and come from the great city. . . . The great city is the place where active "world elements" come together. This contact must be immediate, hand to hand; the decisions which arise from it are the result of hasty conferences and involve activities affecting all countries. . . . The march of ideas takes place all within the narrow area of the centres of great cities; these centres are, indeed, the vital cells of the world.

Le Corbusier (Report to the Strasbourg Town Planning Congress, 1923).

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The disciples of regionalism should not overlook this peril. It is true enough that some sort of "local character" (in the sense of the perpetuation of local tricks of style and local building techniques) can be more easily fostered under a regional system, but this is of no great importance at best, and more commonly denotes misapprehension of where true character lies; while, on the other hand, the very fact of treating each individual region as a self-contained microcosm can only tend towards sameness, through the duplication in each region of the whole range of building types and physical backgrounds that the complexity of modern life requires.



Density, compactness and closeness of contacts are of the essence of the metropolitan (or consumption-culture's) plan-form. The solution to the problem of congestion found in a city like Manchester (above) is not decentralization, but a process of separating out the elements that belong to other cultures which will permit proper exploitation of the true urban character seen in this picture. Good site planning will do the rest.

14

*I can go nowhere but I meet
With malcontents and mutin-
eers,
As if in life was nothing sweet,
And we must blessings reap in
tears.*

*O senseless Man that murmurs
still
For happiness, and does not
know,
Even though he might enjoy his
will,
What he would have to make
him so!*

Charles Cotton.

analysis is inaccurate—that is, if effects in the picture have been attributed to the presence of the wrong colour or to predominance of the wrong colour—the final result, when the three basic colours are again superimposed, will be distortion of the picture. The only way to get eventual coherence is to study the colour requirements *separately*.

For colours, substitute the three primary cultures, which, super imposed on the same plane, give a picture of society actually working and developing. Before planning can serve society properly it must know which elements in the picture are the result of which of its three economic forces, and, more important still, it must be able to diagnose its ills by observing when one component has been allowed to colour one part of the picture too strongly or another has got

generally out of hand, giving a general tinge to all parts of the picture instead of concentrating its effect where it can contribute most to the intelligibility of the whole.

All I have tried to do in this article is to suggest a method of analysis which may help the planner to recognize the nature of the three different forces for which he has to plan, and thus to provide himself with a kind of yardstick by which, at any stage in his activities, he can test whether the principles on which his work is based, and the new, more intelligible pattern that he is trying to evolve out of the chaos he sees in front of him, do remain true to the real nature of the organism called society and therefore give society the best possible physical environment for the fulfilment of its own objectives.

SUMMARY

IN trying to clarify the objectives of the physical planner, it is first necessary to translate society's general objectives into physical terms. To do this we must have a picture of society as a physical affair: that is, we must describe it in terms of its functions. This has already been done by economists, when they say that all social activities can be classified as PRODUCTION, CONSUMPTION or DISTRIBUTION activities: that is, that society functions through supply and demand and the machinery that keeps one in touch with the other.

What bearing does this elementary statement of fact have on the physical planner's problems? The mechanical functions of society are only incidental to its ultimate social objectives which are the achievement of a state of affairs in which proper fulfilment is attainable and frustration avoided. The state of affairs we find in a society at any given moment may be called its culture. But this culture cannot be isolated from society's mechanical functions: in fact a culture is a humanization of a form of work—agriculture for example is the particular culture that arises from working the land. So if work can be classified (as the economist classifies it) according to whether it belongs to the PRODUCTION, the CONSUMPTION or the DISTRIBUTION category, the cultures that arise from work can be similarly classified, and instead of one culture we can speak of three complementary ones.

Our first axiom, therefore, is that all social activities owe allegiance to one or other of three cultures: a PRODUCTION, a CONSUMPTION or a DISTRIBUTION culture. This does not mean that each activity is *wholly* one or the other; only that it has a bias *towards* one or the other culture, and it is our thesis that the physical planner will greatly gain by deciding, in the case of every activity he has to deal with, where the bias lies, and planning in terms of the differences between the three cultures. These cultures, it may be emphasized, represent *forces*. The planner has to canalize forces rather than make abstract patterns.

Which plan forms typically belong to which of these cultures? PRODUCTION, which depends fundamentally on the land and on geographical differentiation, is identifiable with the region, with a continuing process of decentralization. CONSUMPTION, on the other hand, is identifiable with the gregariousness of the city, with centralization, and particularly with the unifying principle that the great metropolis stands for. Since the DISTRIBUTIVE techniques grew so overwhelmingly complicated in recent times—that is, since our modern problems became largely problems of DISTRIBUTION—this third culture has never found a clear physical expression in spite of the fact that it embodies the functions through which the machinery of the other two acts, that it means not only the distribution of goods and communications generally, but the *contacts* which are the very life-blood of a community. Its products have attached themselves chiefly to the fringes of the great cities and are responsible for the haphazard spread of suburbs and the confusion of the arterial road. In fact a great deal of the chaos that we see around us is the result of not providing a proper outlet to the culture of DISTRIBUTION. As DISTRIBUTION means contacts, the need for such an outlet is in practice synonymous with the need for physical planning itself.

The disorderly spread of building cannot be brought under control by preserving and rehabilitating the country-side nor by replanning the city. Both are necessary tasks, but they can only be accomplished by means of a much more fundamental investigation—by studying how to provide an outlet for the full development of each of the three cultures that spring from

the three activities distinguished by the economist. This can only be done by recognizing the different nature of each and reinterpreting the physical planner's terms of reference accordingly.

As an illustration of the application of this principle it is mentioned above how the PRODUCTION culture can be identified with the characteristics of the region and the CONSUMPTION culture with those of the city. But the value of the method lies in more exact analysis: in observing, for example, how so-called industrial production shows in fact, in many of its aspects, a DISTRIBUTIVE or even a CONSUMPTIVE bias, and demands, like everything else, an environment in tune with whichever of these it owes allegiance to. Although the replanning problem, so far as our so-called industrial cities are concerned, may be clarified by pointing out that their functions have nothing whatever to do with the real city character (based on consumption) and their topography is only urban by virtue of a series of technical accidents—that is, by reminding ourselves that *as production* industry belongs rather to the region—at the same time much of the sociological confusion of the present time may be attributed to the fact that industry has become more and more a DISTRIBUTIVE affair.

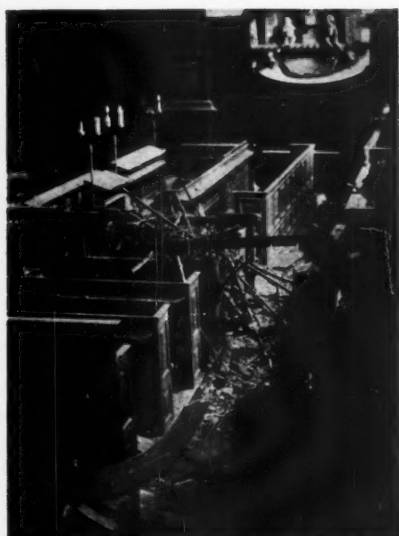
The example of industry is only one among many that could be chosen, and though one of the most important it is also one of the most confused. But the above article does not claim to undertake any of the necessary analysis. It only suggests a method, and will have served some purpose if it helps to place some of the current planning controversies in a clearer relationship with the sociological objectives the physical planner ought to have at the back of his mind. The violently-expressed differences between the urbanist and the Garden City enthusiast, for example, can be usefully restated as the difference between the C and the D view-point, each a product of its own culture. The proper solution of the controversy is clearly the differentiation of the fields of force peculiar to the two cultures, rather than that the two should remain at loggerheads as mutually exclusive alternatives.

It should be made clear, however, that the differentiation is not a territorial one: it is not envisaged that kinds of environment appropriate to the different cultures should be segregated into different parcels of ground. On the contrary, as is suggested in the foregoing analogy of the three-colour process, they are to be regarded as each operating over the same area. Each is segregated for purposes of planning, as it were on a separate plane, and superimposed in actual practice to form an integrated pattern, the three components of which will not be distinguishable *physically*. They will only be distinguishable by the resulting freedom from frustration.

In whatever direction we look, problems can be rewardingly restated in terms of the different natures of the three cultural forces. The puzzling discrepancy between the scenic abandon which characterizes the fringes of our great cities and the progressive refinement of taste which characterizes the urban ideal cannot be resolved by deploring the vulgarity of the former according to the latter's standards, and educating it to a better taste. They are the expression of complementary, not antagonistic forces, each with its own kind of vitality which lends itself to cultivation according to its nature. The negative way of planning is to try and suppress everything that does not fit into an orthodox picture based on unity of cultural aim. The positive way is first to recognize *differences* of cultural aim and then to canalize material forces accordingly.

BOMB DAMAGE TO NOTABLE BUILDINGS

LONDON SIXTH INSTALMENT



ST. MARY ABCHURCH, which has been slightly damaged, was finished by Wren in 1686. It is nearly square on plan and covered by an enormous dome, springing from arches which ride across the four corners in a daring and impressive fashion. The dome was painted by James Thornhill some considerable time after the completion of the church, and part of this painting is included in the damage. Another feature of this lovely building is the Baroque reredos, as successful in scale and placing as it is fresh and vigorous in design.

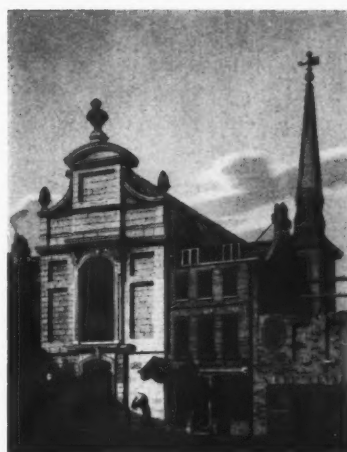
C h u r c h e s



ST. AUGUSTINE'S, WATLING STREET, has lost its fantastic lead-covered spire and the church itself has been partly destroyed. The photograph, taken across the ruins of surrounding buildings, shows its situation in the shadow of St. Paul's. Finished by Sir Christopher Wren in 1683, the interior suffered from modernization by Sir Arthur Blomfield in 1878 when the panels of the barrel vault were ornamentally glazed. Arcades and vaults sprang from Ionic columns, pitched very high, in order to preserve their proportion, on thin panelled pedestals. When the high old pews were removed the effect of this became grotesquely exaggerated. The tower, whose masonry details are



particularly sensitive and beautiful, was finished some years after the church itself.



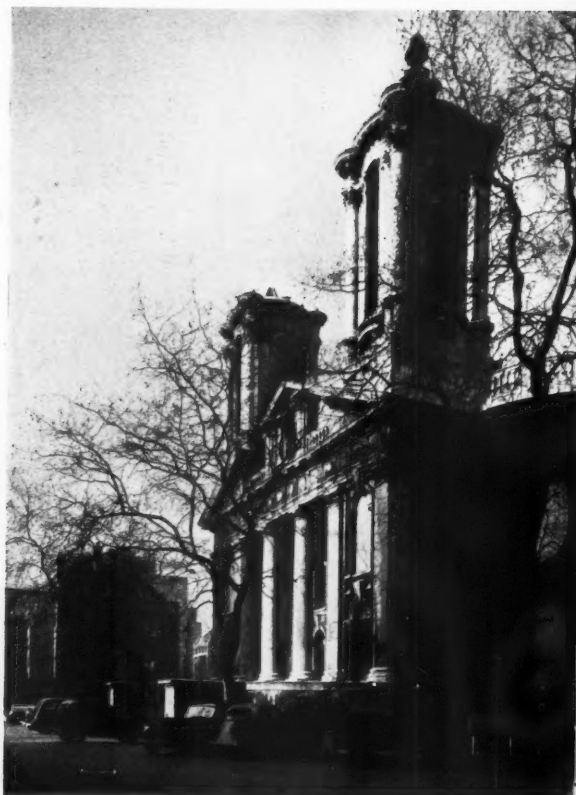
ST. MILDRED'S, BREAD STREET, was a simple domed church of great beauty, finished by Wren in 1683. Deep arches with well-designed plaster-work supported the dome at east and west and there was a particularly gorgeous pulpit and sounding-board. Nothing had been done to spoil the character of this church, which was one of the most eloquent and charming of all the City churches. Its destruction has been complete.



Churches



ST. NICHOLAS, DEPTFORD, is a little-known church, interesting because of its monuments to sailors, adventurers, ship-builders and members of the Evelyn family. There is a mouldering Gothic tower at the west end, but the church itself was rebuilt in 1697. Within twenty years it showed signs of failure and the wrought-iron braces seen in the illustration were inserted to hold the structure together. The rich "overthrows," intended to disguise these necessary makeshifts, give a curious effect. All the monuments have escaped serious damage and many have now been removed, together with the pulpit reredos and organ case, all of which are good seventeenth century work.



ST. JOHN THE EVANGELIST, SMITH SQUARE, WESTMINSTER, is a building of the highest importance in the history of our architecture. Hardly anywhere else in England has the Baroque manner been so dramatically and forcefully handled. It was one of the churches built under Queen Anne's Commission, was designed by Thomas Archer and built in 1721-8. In two respects Archer's church was unlucky. First because lead cupolas were placed on the towers, instead of the exciting Baroque pinnacles he designed; and second because the church was gutted by fire during the eighteenth century and the interior tamely reconstructed in 1758. Its most recent misfortune has, in fact, involved none of Archer's work and the shell must be regarded as a very precious survival.



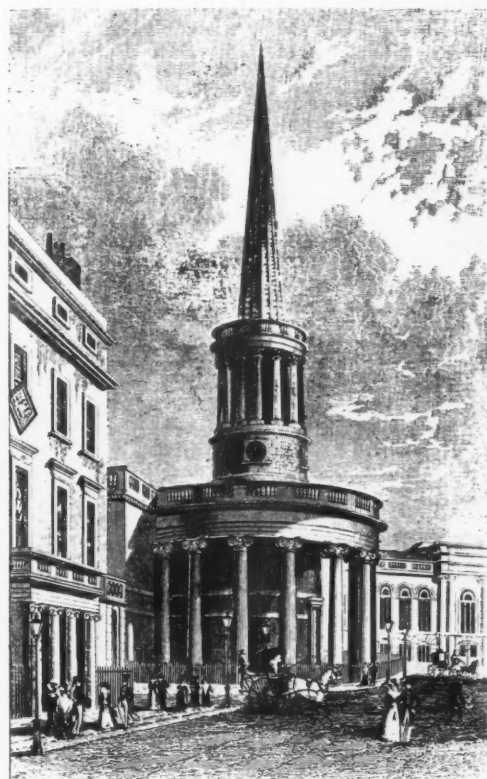
ST. BARNABAS, KING SQUARE, FINSBURY, was designed by Thomas Hardwick, the surveyor to the St. Bartholomew's Hospital estate on which King Square stands. It was one of the churches built under the Church-building Act of 1818 and was begun in 1822. This was the same year as All Souls, Langham Place, so it is impossible to guess whether Hardwick or Nash was first with the idea of a short, needle-pointed spire raised over an Ionic portico. Hardwick had already built several London churches, including St. John's Wood and St. Marylebone. He was an old man in 1822 and, as a pupil of Chambers, had always held conservative views; so the character of the King Square church may well be due to his son Philip, of Euston Arch fame. The badly wrecked interior of the church was of the plainest possible type. The excellent but inappropriate gabled vicarage on the left is by James Brooks.



ALL SOULS, LANGHAM PLACE, is, like St. Barnabas, a Commissioners' Church and was built in 1822-4. Its plan, contrived in such a way as to provide a terminal feature at the end of Regent Street although the church itself lies at a different angle, is one of John Nash's most brilliant conjuring tricks. The two peristyles and the sharp spire are combined with astonishing success, the one questionable feature being the continuation of the rake of the spire to the base of the surrounding columns. The church was much ridiculed when it was new, a Member of Parliament stating in the House that "he would give a trifle" to have it pulled down. This was the occasion for the famous caricature of Nash spitted on his own sharp steeple, with the caption "*Nashional Taste!!!*" As the photograph shows, the only considerable exterior damage is the removal of the tip of the spire.



HOLY TRINITY, MINORIES, was a modest squarish church, built in 1707 and later stuccoed. It had a Gothic predecessor which incorporated some remains of the monastic church of the Minorites, founded in the twelfth century. Some of the medieval masonry is still there and was revealed when the church was burnt. It is shown in the photograph above.



Churches



ST. MARK'S, KENNINGTON, is one of four churches in South London dedicated to the four Evangelists and intended to serve the needs of the enormously increasing population of the parish of Lambeth. The churches were paid for by the Church Commissioners and were among their most ambitious architectural efforts. For some reason they became known as the "Waterloo Churches," though this title was never applied to them when they were new and was possibly coined when the "Strand Bridge" became Waterloo Bridge. The Kennington Church was built in 1822-4, the ostensible architect being D. R. Roper, a successful surveyor. Roper, however, employed A. B. Clayton, a "ghost" whose clever work is represented elsewhere under other men's names.



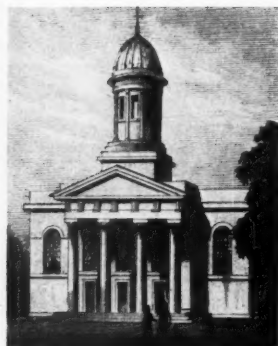
ST. JAMES'S, WEST HACKNEY, stands in the Stoke Newington Road and was built in 1823-5 by Robert Smirke, an architect who was never afraid of repeating himself and always did so with accuracy and skill. Many things could be less elegant but few duller than this typical Smirke church, with its efficiently executed details and marvellous want of imagination. Not even a direct hit could ruffle its utter complacency.



THE CHAPEL OF THE ASCENSION, BAYS-WATER ROAD, belongs to one of the art-movements of the 'nineties. Its architect, Herbert P. Horne, was a poet and illustrator of talent and a frequent contributor to the "Hobby-horse," along with Selwyn Image and others. The Chapel was built in 1890-94 after Horne had spent a holiday in Verona and Assisi with his partner A. H. Mackmurdo. The walls of the interior were adorned with paintings by Frederick Shields. It has been completely gutted.



THE METROPOLITAN TABER-NACLE (colloquially, Spurgeon's Tabernacle), in Newington Butts, was an iron structure within a masonry shell to which a clumsy Corinthian portico was attached. It was built in 1898-99, the architects being Searle and Hayes. Its predecessor, destroyed by fire, was an even more capacious building erected in 1861 for the Rev. Charles Haddon Spurgeon, whose strong blend of Calvinism and humour made him the most popular preacher in London of the 'fifties and 'sixties. The building in its present state provides interesting evidence of the resistance of iron structures to great heat.



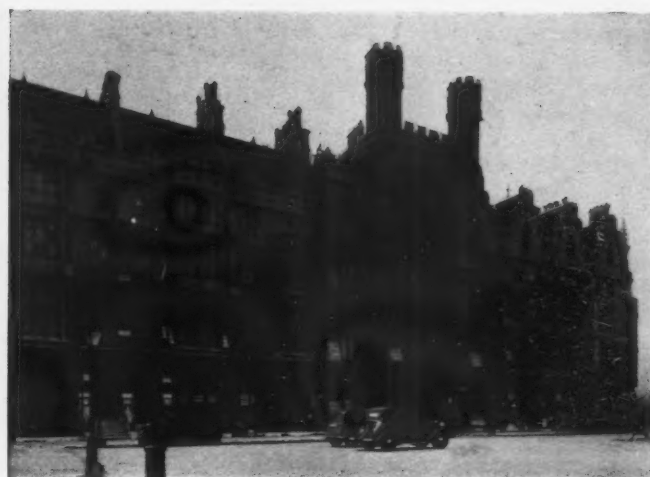
L O N D O N
SIXTH INSTALMENT

CRITICISM

The object of these articles is to stimulate an interest in the æsthetic aspects of nineteenth-century architecture. At least 95 per cent. of the houses that surround us are of the last hundred years. Yet hardly anybody takes the trouble to look at them. Hence the history and characteristics of the "Coburg Style" are less familiar than those of any within the last nine hundred years. To get to know them, one must hunt for typical motifs, collect them, date them and compare them. The game will prove illuminating in whatever district it is played.



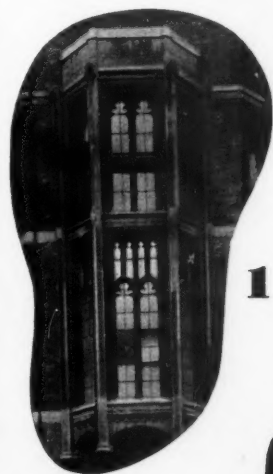
The Gothic of 1830



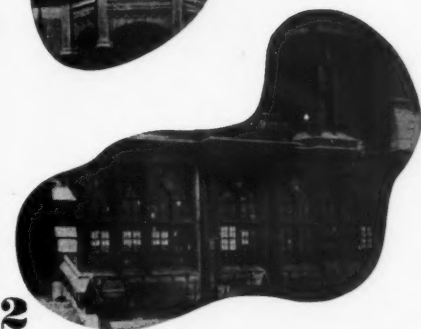
The Gothic of 1860

Treasure Hunt

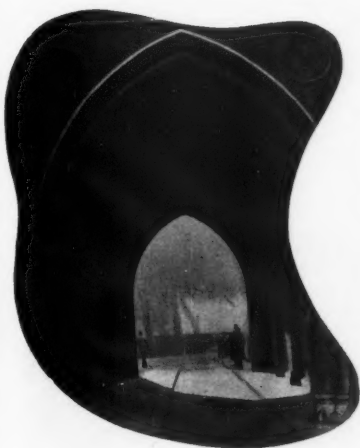
By Peter F. R. Donner



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It would be a mistake to think that, because buildings are in a sight-seeing centre of London, people pay more attention to them, at least if they are not picked out by asterisks in the guidebooks, than if they were in a suburb.

Take Parliament Square. Sight-seers would look respectfully at the Houses of Parliament—Victorian but sacred because of the associations they rouse—and Westminster Hall, then for a moment at St. Margaret's, and after that with assiduity and affection at Westminster Abbey. After having explored the Abbey from East to West, they would regard their programme as fulfilled. The Abbey's Early English and Perpendicular does not tempt one visitor in a thousand to go on a few steps to the west to observe what happened to the Gothic style in the other Gothic buildings round Parliament Square and the Broad Sanctuary.

There are in fact quite a number of them, and they make, as it happens, a story of some coherence. I think the following at least are worth noting and pondering over: the drinking-fountain in Parliament Square; then further south-west the Middlesex Guildhall; immediately behind it, towards Victoria Street, the old Westminster Hospital; and opposite this, behind the Westminster Column, the group of houses with the doorway into Dean's Yard.

I will here discuss them in their chronological order which can easily be verified from guidebooks, or failing that from Eastlake's *Gothic Revival* with its useful long list of buildings at the end, or—a job for the student only—from the old volumes of *The Builder* (1843, seqq.); *The Building News* (1855, seqq.); *The Architect* (1869, seqq.); and *The British Architect* (1874, seqq.). But as a rule one can work out

rough dates on one's own quite easily.

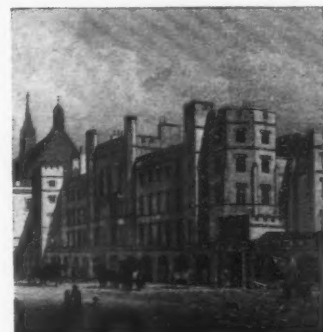
The Gothic of 1830

The old Westminster Hospital was built in 1833-34 by William Inwood, the architect of the Neo-Greek St. Pancras's church and the Neo-Gothic St. Mary's, Somers Town, just north-east of Euston. The Gothic style of buildings of that generation is recognizable by their use of rather frail Perpendicular and Tudor forms. Hood-moulds above the windows are a characteristic *Leitmotiv* (cf., Sir John Soane's entrance wing to the House of Lords at the top of the reference column on the right. This incidentally was built in 1822-24 and formed, no doubt, Inwood's immediate example). The walls are usually stucco-covered so as to give them that somewhat papery flatness so familiar from the churches of the period (St. Luke's, Chelsea) or the many almshouses in the suburbs (cf., reference column). The rhythm of the fenestration is still that of the eighteenth century, and since compositions are symmetrical, one can easily in one's mind exchange them for Palladian houses with central porticoes. The same flatness rules the details. The mouldings of the bay-window, I, are stiff and have nothing of the plastic life of fifteenth-century work. The cusping of the tops of the windows is not archeologically correct. Its somewhat feeble drawing goes convincingly with the general fragility (and in good examples: delicacy) of this 1830-Gothic.

The Gothic of 1860

The group of eight houses opposite the Westminster Hospital was put up by Gilbert Scott in 1854, before he committed himself entirely to the Early English style. What is new

THE GOTHIC OF 1830



Sir John Soane's entrance to the House of Lords, 1822-24. From "Metropolitan Improvements."



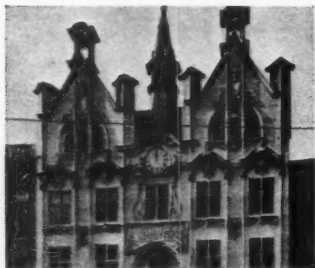
George Smith's Whittington Almshouses in Highgate, 1822. From "Metropolitan Improvements."

THE DRINKING FOUNTAIN MOVEMENT

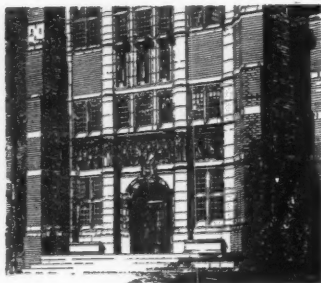


The endearing yet so overwhelmingly naïve attitude of the promoters of the Drinking Fountain Movement in the 'fifties and 'sixties. From *The Builder* for 1858.

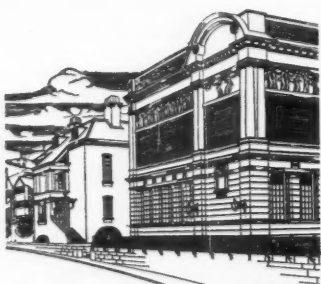
THE GOTHIC OF 1900



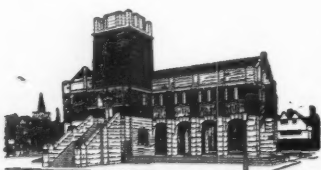
Treadwell and Martin's head offices for Buchanan's, the whisky distillers, in Holborn. From *The British Architect*, 1900.



Leonard Stokes's entrance to All Saints Convent, Colney, near St. Albans. From *Academy Architecture*, 1900.



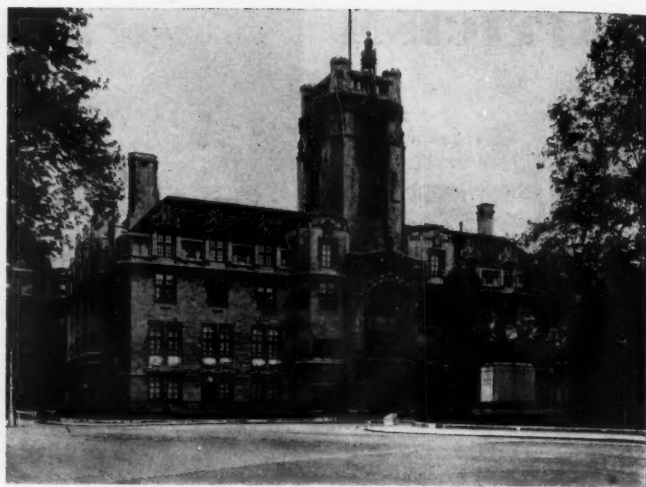
C. H. B. Quennell's design for an art gallery, which won him the South Kensington National Gold Medal in 1895. From *The British Architect*, 1895.



Charles Holden's design for a market hall, done for the Soane Medallion competition in 1896. From *THE ARCHITECTURAL REVIEW*, 1896.



The Gothic of 1860



The Gothic of 1900

as compared with the Westminster Hospital (and typically Mid-Victorian) is the deliberate asymmetry of the façade. The two wings differ from each other in everything—crenellation on the left, stepped gables on the right; a free alternation of polygonal and rectangular bay-windows on the left, a central group of two identical bay-windows on the right. This restlessness, this jerky forward and backward movement, was alien to the 1830-Gothic, but existed also, as we saw in last month's "Treasure Hunt," in Italianate private houses of the 'fifties.

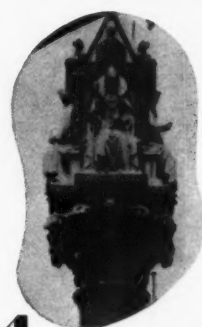
Gilbert Scott was well aware of this innovation and convinced of the validity of his reasons for it. In his *Remarks on Sacred and Domestic Architecture, Present and Future*, of 1857, a book already quoted in last month's "Treasure Hunt," he writes: "The primary condition of street architecture is that each house can . . . present only one front to the view, and that this front is usually a . . . part of the same plane with that of . . . other fronts. . . . So . . . we have submitted to us the problem of how to produce a pleasing effect with an almost continuous plane." This Scott considers a very hard task indeed, for to him "the flatness" of Baker Street, Harley Street or Gower Street is "utterly intolerable," and the Rue de Rivoli is "one of the duller streets in the world." He therefore recommends three things: "to set back the houses a few feet from the pavement, which . . . gives scope for oriels, porches, or other projections," to give to each house "its own front clearly marked out . . . rather than grouping them into masses," and to design "a few houses on one scale and a few on another, some higher than others—a group with gabled fronts, and another with parapets and dormers . . . with some little touch of system, though chiefly arranged with a view to varied wants." How exactly this description fits the Broad Sanctuary houses need not be specially pointed out.

A few words are, however, necessary on the details. They are lively and much more sensi-

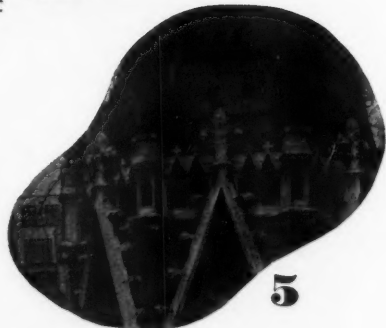
tive than in later Scott. The glazed ground-floor bays to the left of the main doorway with their flowing tracery, 2, are specially successful. In the main entrance, 3, Scott has refrained from his usual heavy decoration. There is nothing but the two delightful medallions with the busts of the young queen and her handsome consort.

But this daintiness was a residue of the early Victorian style. Scott's later works (such as the St. Pancras Hotel) and most Mid-Victorian Gothic are of a sturdier kind, hefty, thick and prosperous looking, with a special partiality for polished red marble and granite. Both are employed in the two memorials of the 'sixties that we will now examine. The Westminster School Crimean Memorial or Westminster Column (1858), also by Scott, is a most illuminating adaptation of the Neo-Classical columnar monument, à la Trafalgar Square, to the Gothic principles of the day. If one is able to forget how senseless a Gothic shaft becomes separated from its architectural function, one may appreciate the way in which the seated figures (Henry III, Edward I, Elizabeth and Victoria) are placed on top of the column, 4. The capital is very illuminating too. It is difficult with many Mid-Victorian motifs to say with any degree of certainty whether they are Mediaevalizing or Italianate. We have found this in the past "Treasure Hunts" with regard to the round-headed windows of 1850 and 1860. Now the capital of the Westminster Column can be defined as Early English with Corinthian foliage, or, alternatively, Scott's remarks may apply to it that capitals should "even if they resemble Corinthian . . . be founded on natural foliage of familiar types." This increasing leniency towards realistic elements in architecture and design is again typically Mid-Victorian.

Yet as a composition the drinking-fountain in Parliament Square is probably more satisfactory. Here is a memorial to Mid-Victorian taste and mentality, as complete as one can find anywhere. Its task is to commemorate Sir T. Fowell



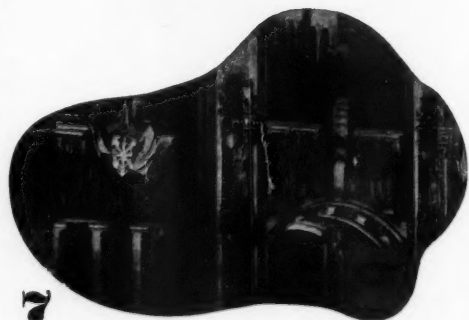
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The only authenticated painting of Robert Adam, the 150th anniversary of whose death in 1792 is celebrated by the note on his iconography alongside. The painting, which is possibly by Zoffany, belongs to the National Portrait Gallery.

Buxton, M.P., and the other Members of Parliament who had supported the emancipation of the slaves in the British colonies—a good, liberal, humanitarian cause, worthy of so solemn a monument. But the donor was not satisfied with an idle memorial. It had to be a drinking-fountain, for the drinking-fountain as such served an equally good and humanitarian cause. "Where good pure water can be had," *The Builder* said in 1858, "there is less temptation in the public-house." This drinking-fountain movement of the 'fifties and 'sixties (cf., reference column) is a signal symptom of well-meaning Mid-Victorian blindness to human nature. The architect of the temple to sobriety here illustrated, S. S. Teulon, one of the stodgiest of his generation (St. Stephen's, Roslyn Hill, Hampstead; St. Andrew's, Stamford Street, Waterloo) has given the two-fold Christian purpose of the memorial a duly respectable expression, with thick, short Early English columns, heavily moulded canopied arches, and a roof made of iron, colourfully enamelled in the style of mediæval goldsmiths' work, 5. The pretty bronze figures at the foot of the roof represent rulers of Britain from Alfred to Victoria.

The Gothic of 1900

The story need not be repeated here of how Morris and Webb discovered the spirit of Gothic behind its forms and consequently abandoned the imitation of individual Gothic motifs. Their

followers went further still, until by 1895 a style had been evolved by young architects quite independently of the past (cf., the Bishopsgate Institute in the January "Treasure Hunt"). When these architects used Gothic detail, they treated it as just another set of freely-flowing *mouvementées* forms suited to take the place of Art Nouveau stalks and leaves. The Middlesex Guildhall, by James S. Gibson, is a late example of this Art Nouveau Gothic, begun only in 1912. Its motifs, such as the twisted canopies above the dormer windows, 6, are derived from a few flamboyant, playfully semi-Gothic buildings of about 1900 (cf., Buchanan's in Holborn, reference column). The frieze of large figures above the entrance, 7, was a favourite motif with the most advanced architects of the 'nineties. Its function was to introduce organic movement into an otherwise unbroken wall surface. Both the unbroken wall and the flowery ornament were innovations of the ending nineteenth century. Of the then mature architects Leonard Stokes uses it, and C. H. B. Quennell and Charles Holden amongst the beginners (cf., reference column). That Gibson should have taken it up so late may seem curious considering the fact that, when it was in vogue, he went in for a heavy Edwardian Imperial (Debenham and Freebody's, Walsall Town Hall). But such belated adoptions of decidedly dated features are to be found at all times.

The death of **ROBERT ADAM**, the most distinguished of the three famous brothers, took place 150 years ago this month. One's closest link with a great man's actual personality is the portraits of him that survive; and as the authenticity or otherwise of the various portraits of Adam is a subject of considerable obscurity, the publication of the note that follows may prove a useful way of celebrating this anniversary.

THE iconography of Robert Adam, though remarkably slight, has managed to be rather confused. Here we shall first unravel the few portraits which may legitimately claim to represent him and then consider the more or less legendary portraits which have no such claim.

There is, surprisingly, only one contemporary engraved portrait. This occurs on the Dedicatory Table of Piranesi's Plan of the Campus Martius, published in 1762 and dedicated to Robert Adam. The Table is inscribed "Roberto Adam Britanno Architecturae Ichnographiam Campi Martii . . ." and contains both sides of an imaginary medal, dated 1757 on the reverse. Of little value as a portrait, the medal is the basis of an etching published by W. Richardson in 1808 which is of even less value. The medal, however, and the Dedication of which it forms part are valuable evidence for Adam's reputation in Rome at that early date in his career.

The only life-size painting on which we can rely is that now in the National Portrait Gallery, to which it was presented by the National Art-Collections Fund. It was until recent years at Blair Adam and was sent to a London sale room owing to a misunderstanding of the owner's instructions while he was abroad. No positive attribution of authorship has been made, but the suggestion that it is by Zoffany must be taken seriously.

Still at Blair Adam are a fine ivory plaque and an indifferent miniature which we may accept as authentic portraits; but in neither case is the artist or date of execution known.

Three medallions in paste-relief by James Tassie in the Scottish National Portrait Gallery all show Adam's head in profile to the right. Two present him "in the antique manner" while in the third he is in the contemporary style of hair-dressing. A curious feature of all three is that they give him two warts on his right cheek, which appear in no other portraits. These admirable Tassies give a strong feeling of being *ad vivum*, but two of them have inscriptions recording the date of his death. These, therefore, must be regarded as posthumous, especially as no portrait of Robert Adam is included in Raspe's catalogue of James Tassie's work, published in 1791. One of the "antique" versions bears no inscription or date. As Adam died in 1792 it is possible that it was produced in the last year of his life.

We now leave solid ground and enter the marshes of uncertainty, but on the brink mention ought to be made of three portraits which were included in Sales of Robert Adam's effects. Lot 10 in the Sculpture sale at Christie's on May 22, 1818, is described as "Bust of Mr. R. Adam in plaister, by Hokings" (a sculptor whose name is otherwise unrecorded). No price is given for this item in the marked catalogue (inspected by the courtesy of Messrs. Christie). Two portraits of Robert were included in the third portion of his effects sold at Christie's on July 9-11, 1821. In neither case is artist or size mentioned, nor is there any description except that the second is described as "earlier in life." Nothing further is known of these three portraits.

An elaborate three-quarter length *portrait d'apparat* dated 1763 and ascribed to Pompeo Batoni was exhibited at the National Portrait Exhibition, 1867, as representing Robert Adam. Nothing is known of its previous history, but there is little doubt that it is by Batoni; his studio was in Rome and he never came to England, and Robert Adam was not in Italy after 1758. It has been suggested that the sitter is James Adam, who left Italy on his return home in May, 1763, and was very likely to have been in Rome during the earlier part of the year. But there is no authenticated portrait of James with which to compare it.

The R.I.B.A. possesses a pair of portraits which were presented in 1859 as representing Robert and James Adam. Unfortunately the inscriptions to that effect which they bear do not impress as being contemporary and nothing certain is known of their earlier history. The portrait called Robert does not correspond with the Blair Adam canvas, miniature and ivory plaque and the Tassie medallions, which all agree closely.

Finally, there are hints of portraits by Reynolds, Raeburn and Romney to consider. In the records of sitters to Reynolds, based on appointments in his diaries, a Mr. Adam is stated to have sat in May,



The only contemporary engraved portrait: a portion of the Dedicatory Table of Piranesi's Plan of the Campus Martius, 1762.



The ivory plaque at Blair Adam: artist and date unknown.



A posthumous portrait: one of the medallions in paste-relief by James Tassie, now in the Scottish National Portrait Gallery.

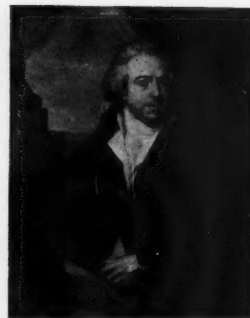
1772. In Leslie and Taylor's *Life of Sir Joshua Reynolds*, "one of the architects of the Adelphi" is added in brackets after the name; Graves and Cronin state that the sitter was probably Robert Adam. Even if one were sure that the entry concerned an appointment with Robert Adam it must be remembered that not all appointments with Sir Joshua were for sittings.

The Romney legend seems to be founded on an entry in the artist's diary on November 11, 1780, and another on November 16, both recording "Mr. Adams at 1." While the final *s* has been a trap for the semi-literate of to-day, it is hardly prudent to assume that "Mr. Adams" means "Robert Adam." As to the Raeburn, this is one of a pair representing a portly middle-aged professional gentleman and his wife, a Mr. and Mrs. Adam. Both were in the Coats Collection when they were exhibited in Edinburgh in

1908; the man was actually catalogued as "Robert Adam," and James Greig, in his catalogue of Raeburn's work, repeats this quite unwarranted assumption. The pair are obviously a man and wife, but Robert Adam was not married.

It is worth while devoting space to these three, because it is always desirable to expose inaccuracies which may raise false hopes. We have therefore to rely only on the Blair Adam canvas, miniature and plaque and on the three Tassie reliefs, and to a very small degree on the Piranesi engraving. It should also be observed that there is no positive external evidence that Robert gave sittings for any portraits, nor has any contemporary reference to any portrait of him been noted.

JOHN STEEGMANN.
C. K. ADAMS.



The R.I.B.A. portrait, supposed to represent Robert Adam, but of very doubtful authenticity.

BOOKS

The French Inigo Jones

FRANÇOIS MANSART, by Anthony Blunt. London: The Warburg Institute. Price 12s. 6d.

THAT the first monograph in any language upon François Mansart should have been written last summer in the scant leisure of an English soldier is a fact no less astonishing than it is gratifying, for Mansart the elder is one of the greatest French architects. He is too usually thought of merely as the inventor of the mansard roof—which he did not invent. But his stature becomes apparent when his work is compared with that of his contemporaries. French archi-

tecture in the sixteenth century attained an incoherence and vulgarity never exceeded till the middle of the nineteenth. The moribund Gothic of Brou and the puerile Renaissance of Chambord are equally lamentable. Under the later Valois and Richelieu understanding of the Renaissance increased, but the results were dull. Of the architects who developed the French classical style Mansart was incomparably the finest. His supremacy was not perceived, and such men as his nephew, J.-H. Mansart, and Levau, lacking his invention and subtlety, developed the official *Louis Quatorze* manner. The Palace of Versailles is at once gross in its ostentation and glum in its monotony. But later, in the work of A.-J. Gabriel, whom I take to be the greatest of French architects since the thirteenth century, we see the noble characteristics of Mansart elevated to their logical perfection.

Captain Blunt begins with an explanation of the divergence in the seventeenth century between the French and Italian styles. The full Baroque of Italy, we are told, results from the ecclesiastical autocracy of Rome, while the rational classicism of France represents the new secular code of the "honnête homme." I would add that the French, now nourished instead of intoxicated by Italian inventions, returned to that *mesure* which has usually distinguished their work in all the arts. Mansart, being characteristically and finely French, was congenitally the antithesis of Borromini. National and personal temperament, I suggest, plays at least as large a part in the history of art as political and ideological conditions.

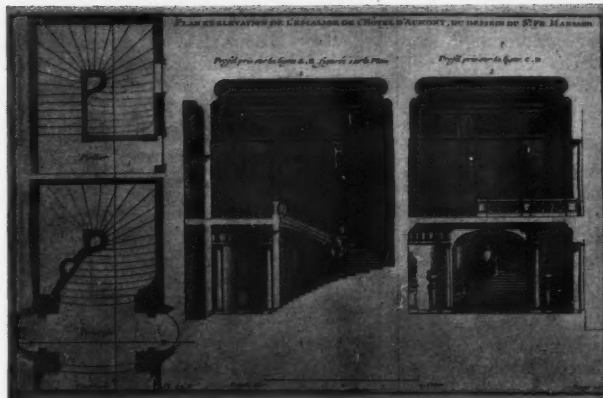
Captain Blunt's book is exemplary in taste and erudition, and its production is most creditable for the Warburg Institute. Too often monographs on architecture lose most of their value by not including plans. In this book each of Mansart's buildings is acutely analysed in the text and well illustrated in the plates. Without access to documents in France, the author has been unable to discuss the attribution of certain buildings to Mansart, or to decide how much he owed to such contemporaries as Lemercier, Le Muet, Levau and Jean du Cerceau. It is remarkable that he never visited Italy, though his first important building, the Val de Grace, is in substance an Italian church, not of the Baroque but of the earlier Counter-Reformation type. The earlier Ste. Marie de la Visitation is more original, but decidedly clumsy. Mansart's masterpiece is the château, alas never completed, of Blois, built for the least *honnête* of men, the treacherous and reactionary Gaston d'Orléans. Immeasurably superior to any other seventeenth century building that I know in France, this masterpiece establishes Mansart's pre-eminence. His work at the Carnavalet also is exquisite. (Captain Blunt's careful analysis of this building becomes clear only when one realizes that Plates 15 *b* and *c* have been reversed by the printer.) I cannot so readily accept the encomium upon *Maisons*: the broken roof-line of this château seems to me out of keeping with the classical façade, the top of the central pavilion is a muddle, and the two porticoes look like after-thoughts. It is most puzzling that Mansart, after perfecting his style at Blois, should have relapsed into such archaisms. I confess, however, that I know *Maisons* only from photographs, which can be most calumnious.

This study provides a valuable appreciation of Mansart's ingenuity in planning—particularly where the two fronts of a building are not coaxial. The delicacy of detail is no less remarkable, and Captain Blunt rightly emphasizes the extraordinary flexibility in the rhythms achieved. Mansart is here compared with Corneille and Poussin. A comparison with Bernini and Inigo Jones would be no less instructive: the Italian was the more powerful genius, the Englishman departed more courageously from the native style, but the Frenchman showed a subtle refinement that was at once personal and characteristic of his nation.

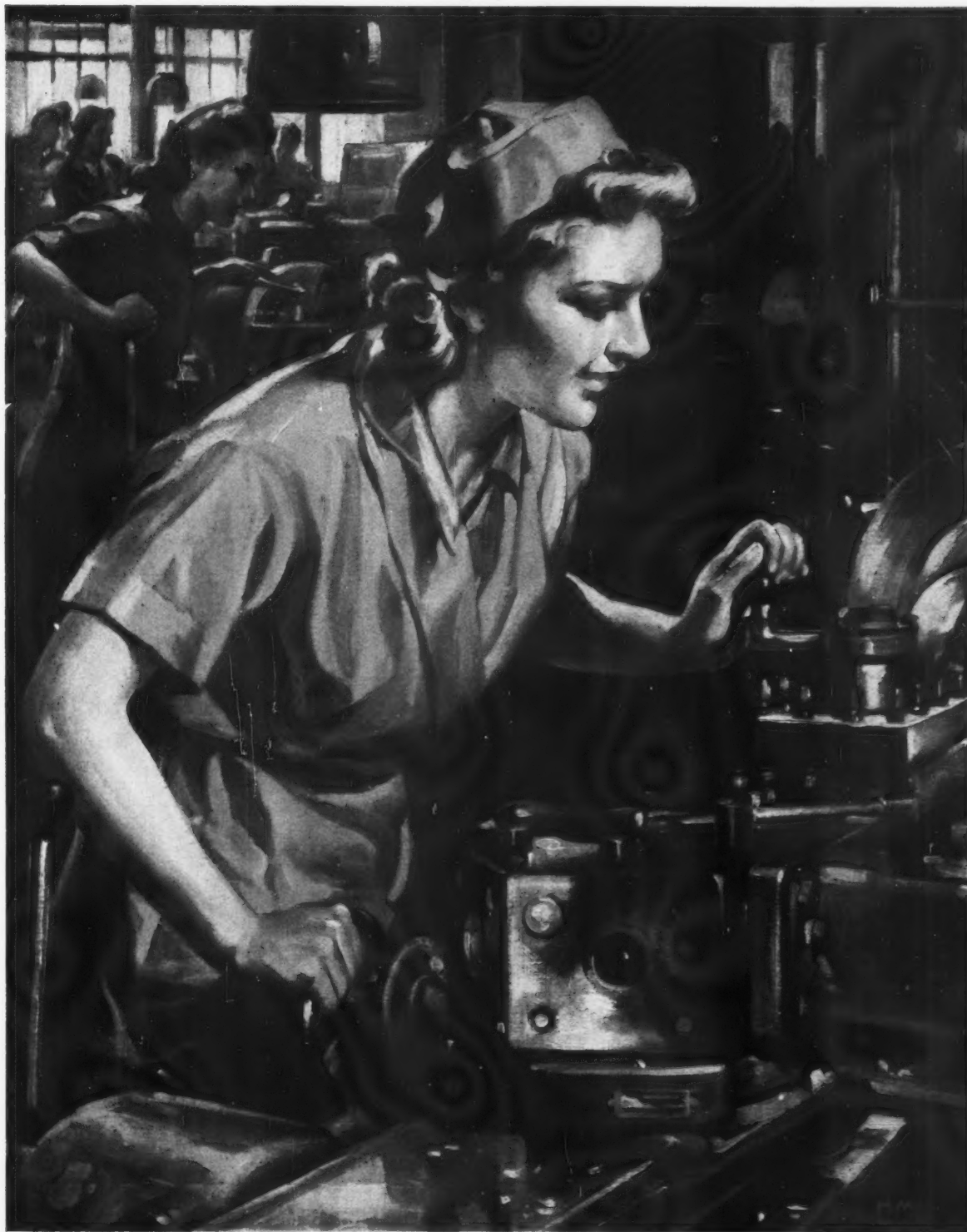
RAYMOND MORTIMER.



François Mansart, up to the publication of Captain Blunt's book reviewed on this page, had not been as well known as he and his unique position in the history of French architecture deserve. He created the classic French style in building at exactly the time when Poussin created it in painting and Corneille in literature. The character and details of Blois (photograph above) seem at first almost unbelievable as early as 1635. Moreover—and this also is proved by Captain Blunt—Mansart created one of the most important types of Baroque staircase, the open stair in a square well, such as that in the Hôtel d'Aumont on the right.



Another Step towards Victory



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from a painting by M. MACKINLAY

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The Yurt

Like all Mongols the family lived in a yurt, or, to be exact, in four yurts. Set out on the vast green plain these small round huts looked like nothing so much as a cluster of inverted salad-bowls. They were typical of the simple Mongol dwellings so much condescended to by non-Mongols unaware that the squat, ground-hugging shape of the yurt is the only one which can survive the fierce Gobi winds without elaborate anchorage. As I later learned the yurts were also extraordinarily efficient mechanisms for shelter, built of the only materials available on a pastoral steppe—felt, a few slim poles, and horsehair ropes for fastenings. Incidentally a proper yurt was not only a streamlined machine for living, but was also assembled from parts of standard shape and size, making it the first of prefabricated houses.

The first time I approached the hive which was to be my home for some six weeks, I walked around the windowless walls, stooped awkwardly through the low door on the south side, and dropped to the ground until my eyes, temporarily blinded by the change from the brilliant sunshine outside, could become accustomed enough to the gloom to apprehend the details of the dome-shaped interior. Gradually there materialized round latticed walls and a roof supported by radiating poles stained reddish-brown, making a pleasant pattern against the white felt of the outer covering. The floor was completely padded with white mats quilted in geometrical designs. There was no furniture in our sense of the word, but around the low walls were stacked great red-lacquer chests with heavy brass locks and hinges. At one side were racks holding wide bowls of milk, cream, and cheese; from the roof-poles hung whips and harnesses, and by the door were stacked several wooden saddles.

Against the back wall at the left was the family shrine, a small red-lacquer case jammed full of little Buddhas, paper ornaments, candles, incense and stale offerings. In the centre, directly beneath the round skylight, was a square of bare earth on which stood a round wrought-iron grate. Here a fire burned amid chunks of a curious grey matter; this was "argol," dried camel-dung, which has always made such fine fuel for treeless desert countries, being plentiful, portable, highly inflammable, and free. It notably lacked the disadvantage one might expect, and on the contrary gave off quantities of pleasant piney-smelling smoke.

In the windowless yurt there could be no cross-draft and the smoke billowed straight up and out of the skylight in a well-behaved way. With shafts of sunlight striking obliquely through the bluish clouds, a pot of something good on the fire, and a few furs for the white felt floor, the nest-like interior made a pleasant sight, an extremely cosy definition of the word "shelter." The Mongols have developed an extraordinary addiction to this form of house, possibly because the small crowded yurt provides a needed antidote to the vast, featureless rotunda of sky which dwarfs them everywhere on their native plains. Mongol princes and high lamas who possess real palaces built by Chinese masons invariably prefer to do their eating and sleeping in yurts which they have erected in their courtyards or inside their large official rooms.

GRAHAM PECK

("Through China's Wall," Collins, 1941.)

trusted that the publicity the sale has been given has made it clear to the new owner that he has not only acquired a theatre but also the responsibility of looking after a national treasure.

"Science and the War Effort"

A conference under the above title, organized by the Association of Scientific Workers, took place on January 11 and 12. It was in some ways a counterpart of that of the British Association held last September and reported in the November issue. In the earlier meeting general principles of science, as applied to "World Order," were discussed. In the January conference of the A.S.W. scientists showed how they can come down to brass tacks.

Scientists use a critical and methodical system of thought and action which can be described as the "scientific method." They do this deliberately and consciously, not because it is peculiar to science, but because it is the method which yields the best results. It can, of course, be applied to other human occupations, such as the organization of industrial production, building, or the explanation of historic happenings. In fact it can be applied anywhere that thought and the faculty of foresight can be of use.

It has been made clear that the scientific approach, methodical and critical as it is, would yield the best results in the conduct of the war and in the using of material resources. Constructive criticism is the greatest help in fostering efficiency, and this sort of criticism is the very backbone of democracy. Last September, at the meeting of the British Association, we heard of the potentialities of science for solving the problems of the post-war world. At the meeting of the A.S.W. it became clear that if more scientific methods are not used in the conduct of the war, in the problems of production, planning and research, the opportunity of using science later on may not occur. There seems to be an unnecessary lag between the finding of results in the laboratories and the application of these results in industry. There is not enough contact between those who produce and those who use weapons, tools, etc. Constructive criticism is often discouraged rather than welcomed. There are exceptions to these general occurrences, and these were pointed out by the speakers.

Some of the speakers at the conference were scientists of world-wide repute, others were young men and women from the laboratories, drawing offices and factories. The following subjects were dealt with:

1. The training of scientific and technical personnel.
2. Building, housing and A.R.P.
3. Food and agriculture.
4. Utilization of scientific personnel.
5. Application of scientific knowledge to production and service problems.

The section on building, housing and A.R.P. had as chairman Mr. O. N. Arup. Dr. Fitzmaurice treated the

MARGINALIA

The Theatre Royal, Bristol

Attention was drawn in a letter to *The Times* from Mr. Herbert Farjeon on January 28, to the fact that the Theatre Royal at Bristol was shortly to be put up for sale, and an appeal was made that it should become a national possession. Such a move to safeguard the theatre from destruction or maltreatment in commercial hands would be fully justified, both on architectural and sentimental grounds, for it is the oldest theatre in England

(or, some say, the second oldest), is unique in retaining its eighteenth-century interior, complete with side-boxes, and has housed performances by such great players as Mrs. Siddons, the Kembells, the Keans and Macready. It was opened in 1766 and granted letters patent by George III in 1778. The prologue recited on the opening night was specially written for the occasion by David Garrick.

The sale which occasioned this appeal has now taken place and the

theatre was knocked down for £10,500 to a firm of auctioneers acting on behalf of an unnamed client. It is to be

The drive for the collection of waste paper and scrap-iron continues. Architects are in an exceptionally good position to help in this necessary and urgent task, and should do all they can without delay. They should sort out the piles of old plans and specifications in their offices, many of which can be spared, and they should inform the authorities of any unused iron and steel on building sites and elsewhere.

question of the application of scientific methods in the building industry and the valuable work done by the Building Research Station. Since early in 1940 the Building Research Board has issued eighteen Wartime Building Bulletins publicizing this work. The main concern of the Building Research Board was the establishment of standard designs to serve as a guide for the erection of wartime factories. Considerable work has been done in connection with the effect of bombing, and recommendations incorporating the findings have been made. The wartime scarcity of materials has stimulated research into economic building methods. Remarkable results have been achieved in this line: for example, an army hut of the type which before the war used 4 to 5 standards of timber, but which with the new methods evolved only requires $\frac{1}{2}$ to $\frac{3}{4}$ of a standard. The idea for it came from the newest type of aircraft design, and it is called the "Stressed Skin Structure." The scientific method can also be employed in the making of plans; as an example of this, by the use of the "Daylight Protractor" natural lighting of rooms can be calculated in a simple and practical manner. This was invented by A. F. Dufton, of the Building Research Station.

Professor J. B. S. Haldane dealt with the A.R.P. question. He gave a *résumé* of the experiences of the A.R.P. Co-ordinating Committee. He pointed

out the unscientific approach of the official bodies to the problem and gave dates when suggestions were made without response from the authorities. The reinforced surface shelters, for instance, were suggested as far back as November, 1939, when it became obvious, even to the authorities, that the warmly recommended lime mortar (or even cement mortar) surface shelter does not serve its purpose.

Miss M. J. Blanco White concentrated on the theme of wartime building. She pointed out that the wartime programme could be divided into three groups, namely:

1. Wartime factories.
2. Building for the services.
3. Building by or for the local authorities.

The difficulties are well known and two-fold: shortage of labour and shortage of materials. The remedies suggested were unified control and the pooling of information.

Ove Arup contributed a well considered and concise paper. He dealt with the possibility of using structural parts of wartime buildings for permanent post-war purposes. He said: "... the idea is that reinforced concrete structure, which during the war is required for air-raid protection, should not be demolished after the war, but that its permanent nature should be made use of for easing the immediate post-war housing problem, which obviously will be very acute." He

then suggested that "this structure can be used in wartime for:

1. Ordinary dwellings, providing full peace-time standards plus protection.
2. Dwellings providing limited living accommodation for a greater number of people.
3. Air raid shelters only."

It was not suggested by Mr. Arup that buildings should be provided straight away to fulfil post-war requirements, but it was suggested that where it is possible, "some of the money now spent... would not be wasted" if a far-sighted programme were adopted.

Another point made was a warning against misunderstanding in regard to standardization. While rigorous standardization of dimensions is important for prefabrication, the standardization of *method* is far more important with concrete work, which becomes economical only when carried out on a large scale. The re-use of shuttering (for instance, 100 times instead of 2, 3 or 10 times) will lessen the cost of shelters much more effectively than the rigorous standardization of elements.

Finally, Mr. Arup pointed out that a combination of "in situ" concrete and prefabricated elements could be advantageously envisaged.

Acknowledgments

Among the photographs reproduced in this month's instalment of THE

ARCHITECTURAL REVIEW's survey of notable buildings damaged in air-raids (pages 71-74) those of St. Mildred's, Bread Street, Holy Trinity, Minorities, St. Barnabas, Finsbury, St. Mark's, Kennington, and St. James's, Hackney, are by courtesy of the London County Council, and that of St. Nicholas, Deptford, is by courtesy of the National Buildings Record.

CORRESPONDENCE

The Editor,

THE ARCHITECTURAL REVIEW

Sir,

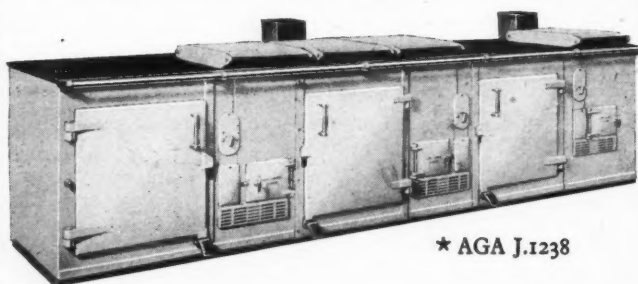
May I, as a layman, be permitted to comment upon the article "Three Dimensional Town Planning" in your January issue.

Such planning will stimulate thoughts and feelings hopefully but, at the same time, it will bring out misgivings which too many are still suppressing. There are involved in such proposals immense tasks of clearing away not only physical obstruction but psychological and aesthetic resistances, and little or nothing is being done towards this demolition work.

As an example of this, I invite consideration of public discussions in newspapers, the Houses of Parliament and local government bodies upon the reconstruction of damaged or ruined public buildings. Many of these build-

Continued on page xl

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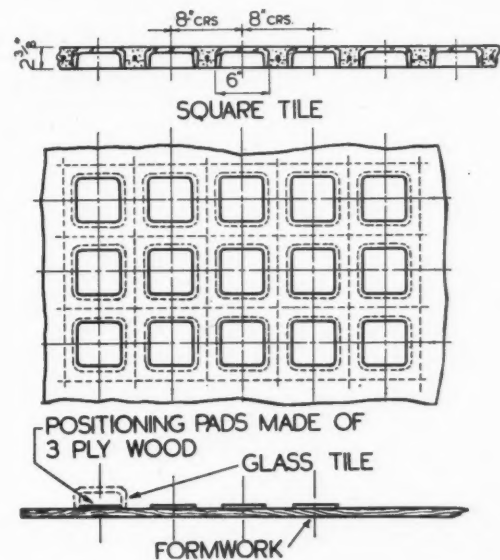
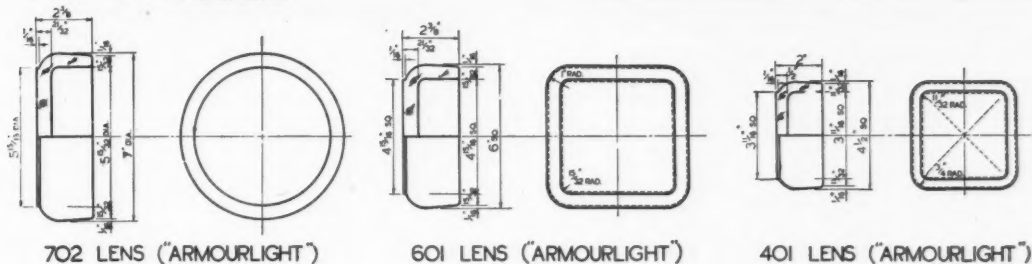
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Continued from page xxxviii

ings, including the House of Commons itself, belong to and typify the spiritual bankruptcy of an age about which the less said the better, and their psychological influence upon the minds of those who should be looking forward rather than backward may well be disastrous.

Instead of shouting with joy at the removal of a spiritually dead hand upon the deliberations of our public men and the magnificent opportunity offered to it of creating a background for the future free from humbug, the architectural profession, as a whole, appears indifferent. By its silence, it seems to bow to the sentimental desire for the replacement of buildings which, from almost every point of view, are useless, if not mischievous.

Instances would be invidious: may I therefore put forward a constructive suggestion. Could there not be an unofficial public relations body or group of architects who would consider the influence of architecture upon our national life with special reference to the removal of bad tradition, and the substitution of that vitality which is shown more among architects than in any other group of professional English life with which I am acquainted? There are many media available for the expression of opinion which might arise from such consideration, and a focus of coherent action to be taken before plans crystallize might well have

a substantial effect on post-war Britain. The media used must, however, be beyond the professional papers, since there, preaching is to the converted only.

It is only within recent months that I have come into contact with the architectural profession, but in it I have found not only the vitality to which I have already referred, but a clarity of spiritual perception which surely is the greatest of all our needs in the replanning of England. Such people cannot, and must not, confine themselves to the physical and material reconstruction of England since there are all too few individuals capable of leading us back to our ancient vigour.

Yours, etc.,

ENGINEER.

Dover Street, W.1.

The Editor,

THE ARCHITECTURAL REVIEW.

Sir,

The article in your November issue entitled "Wanted: an hypothesis," promises to explain the functions of research, but the author contents himself by damning its eyes. He expresses indeed what is becoming increasingly common in the architectural world, and that is a sense of disappointment in what research has achieved.

As abler pens than mine are probably

too indolent to do so, I would suggest, Sir, that this arises from a misconception of research, and of its potentialities, and I would like, therefore, to focus attention on how research can function as a philosophical instrument rather than as a degenerate catchword. In doing this I feel obliged to refer to your article, but I hope you will acquit me in advance of any carping criticism, for even had I such ambitions I have too much sympathy with the author's cause to offer vain dissection. I hope to convince not to provoke.

It is not unusual to find that those who have not undergone the discipline of a scientific training cheerfully use scientific words and phrases in connotations that no scientist would recognize, and probably that is why such a payment of lip service to science struts abroad in the architectural world.

As the final issue involved is so serious (nothing less than achieving the material environment in a reconstructed world) rigorous scientific methods should be applied where they are suitable. Bastard science will erect only another barrier.

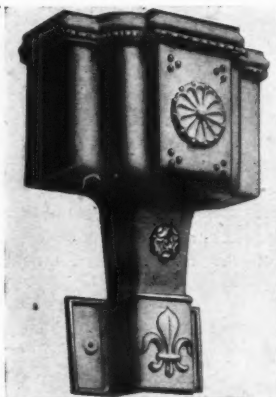
The philosophical content of sociological problems is different from those with which science is traditionally concerned. When an investigator is considering sociological problems he is dealing to a large extent with "imponderables," but these are usually more undetermined than non-determinable, and there is no excuse for throwing

away in a fit of impatience (just because the needs are urgent) the slow, patient logical methods of examination and conclusion that have gradually evolved civilization from barbarism.

The author of your article tells us "that the numerical science of objective observation made into an end by itself, is itself unscientific if only because the observer is never in practice impartial." I am not sure that I know what this means, but it should be appreciated that science is objective and not subjective and does not depend for its facts on the findings on any individual observer. Science is non-authoritarian, and the scientist is professionally a happy man because he does not care a rap what Mr. Gladstone said in eighteen - something or other. The essence of scientific truth is that it rests on observations that are independently verifiable, and is thus independent of any observers' partiality. The history of most sciences is indeed littered with instances where work has been performed in a painstaking and honest fashion, and is so much better than the observers' logic that it contains the refutation of conclusions drawn at the time.

Plato said somewhere that if you take away mensuration from any art, there is not much left, and although this was said a long time ago it is still true. Indeed the threefold clue to exact knowledge has always been number,

Continued on page xlii



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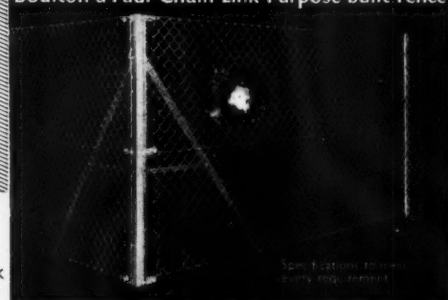
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Continued from page xl
order and position. Natural sciences such as physics and chemistry started by being descriptive and gradually became quantitative. Biology owes much of its recent development to mathematical expression. If architecture is to fulfil its social obligations it must develop in the same way: it is not enough to conceive problems—they must be expressed quantitatively. To do this investigation is necessary. Normally in scientific work if data are amassed a trained mind ultimately can formulate some correlating expression, either quantitatively or qualitatively. Then after such a formula has been established, carefully planned experiments are made to test the validity of the assumption. It is, however, not pertinent to plead for an hypothesis on which to base a reconstruction programme in architecture because such a plea is based on a false analogy between a subjective concept and a vital objective science.

Such a programme must start from a set of axioms such as, for example, that a certain cubic capacity of house room, or a bathroom, or a perambulator store is a *sine qua non*. The aim of research in architectural endeavour might be to establish an objective science of architecture, or to determine the ratio of such a science to emergent sociology, or any other objective aim. It must start by examining an existing state of affairs and by correlating sets

of facts. If some degree of correlation is established it is even then unsafe to extrapolate on a curve, though to do so might establish an hypothesis available for experimental verification. Nevertheless, it is possible to argue validly from the particular to the general if sufficient care is taken. Though inductive inferences are uncertain they cannot preclude unequivocal inference, and if the logical structure of experimental work is complete, entirely valid inferences may be drawn without recourse to axioms which mathematicians dispute. Inductive inference cannot be altogether denied as it is the only process that brings entirely new knowledge into the world.

It is specially important to choose carefully the components of a system because the practical adequacy of a concept depends on the judicious selection of fundamental ideas on which the concept is built. The use of a vector depends on the parameters by which it is defined. For example, Euclid laid down the axiom concerning parallel lines which masqueraded as an essential truth till the end of the eighteenth century, and although Euclidian geometry formed the basis of a useful world picture, Einstein's relativity theory gave a new picture most conveniently stated in a non-Euclidian form. I consider that the author of your article has chosen his parameters unwisely. He writes of "research," "field-work,"

"objective observation," "scientific study" and so on, till it is apt to be forgotten that these are analogies, for they masquerade as homologies. Similarly, reference to public opinion polls adds only more confusion. Cowell (*Journ. Inst. Public Administ.*, 1940) and others have examined these polls and there are at least other points of view than that expressed. That, however, is a side issue. What is more important is to realize that unless we mend our ways we shall be joining Lewis Carroll in hunting the Jabberwock. Instead of finding something, as Adam did, we shall find ourselves inverting the method. We imagine something called "research" and then go out to find something to fit the label. Ellipsis intensifies the obscurity. "Planning problems" do not exist. The problems are sociological ones that planning helps to solve.

In trying to solve such problems we have to contend with unnatural difficulties. The problems are mostly man-made and are subjective ones. It is possible to obtain an objective picture of the world expressed by physics and chemistry because their world is an objective one that can be resolved by the scientific methods of observation, description and correlation. That is

not the case with the sociological problems that an architect has to face. There is not *ab initio* a mass of abstract truth erected on absolute standards that can gradually be assailed. The matter is a human problem and is basically subjective, and there seems no fundamental data whereby it can be established on an objective basis.

Yours, etc.,
E. H. ELLIS.

Farley Green,
Near Guildford.

The author of the article referred to in the above letter writes: "We should all be grateful to Mr. Ellis for describing the functions of science so lucidly and comprehensively. I cannot understand why he felt that my article took an opposite point of view. My purpose was most certainly not to complain that scientific research had failed to achieve results. What I complained of was that so-called "research" was being allowed to take priority over some theoretical statement of sociological objectives and was being thoughtlessly regarded as a panacea which could be applied to sociological problems. The latter, as Mr. Ellis rightly says, are not susceptible to objective scientific study. I was not decrying research, only the people who expect too much of it.—J.M.R."

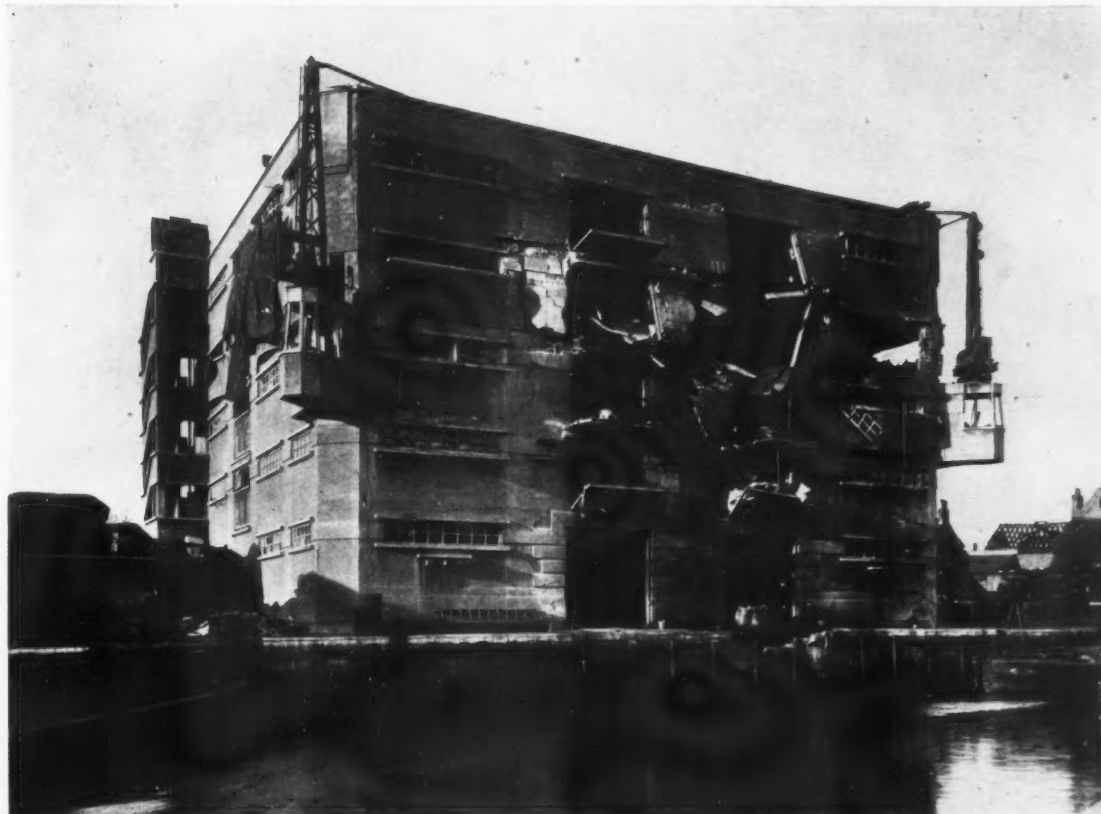
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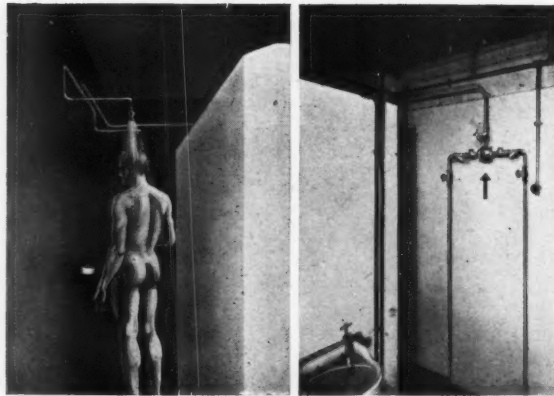
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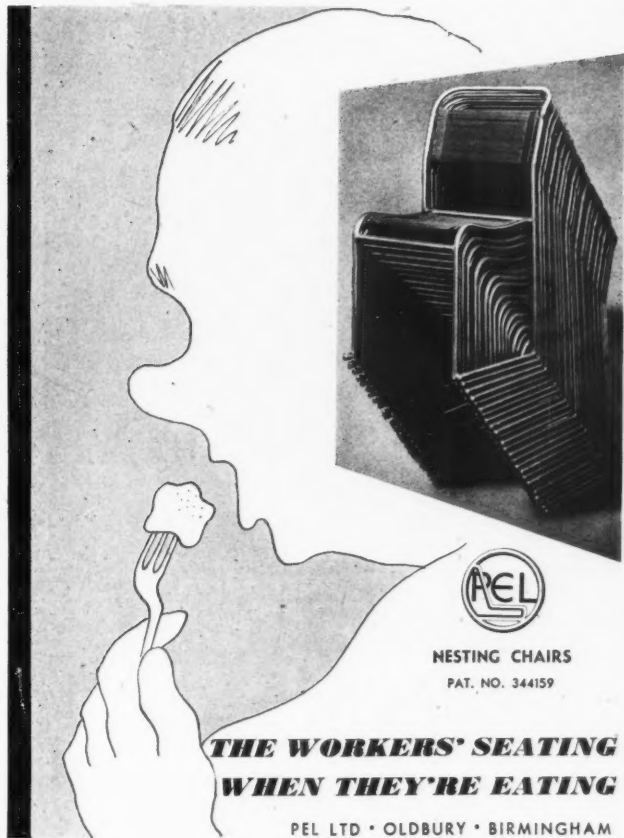
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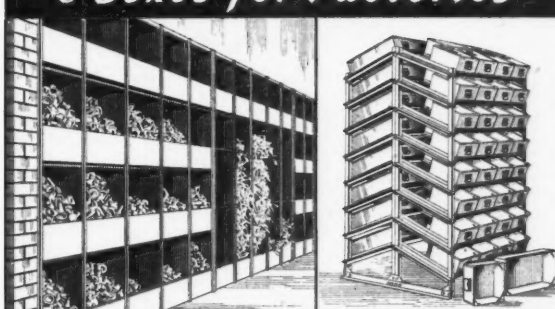


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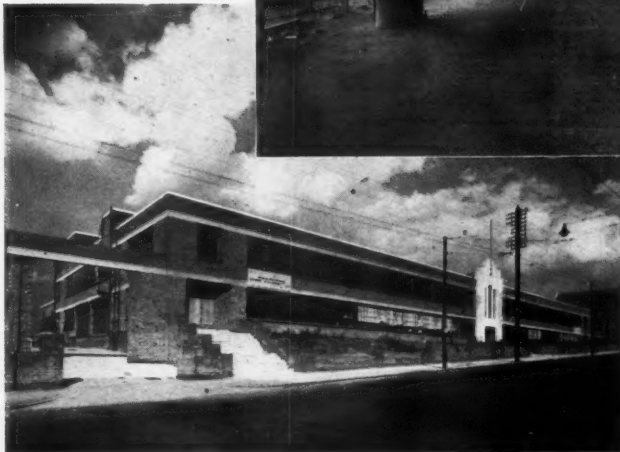
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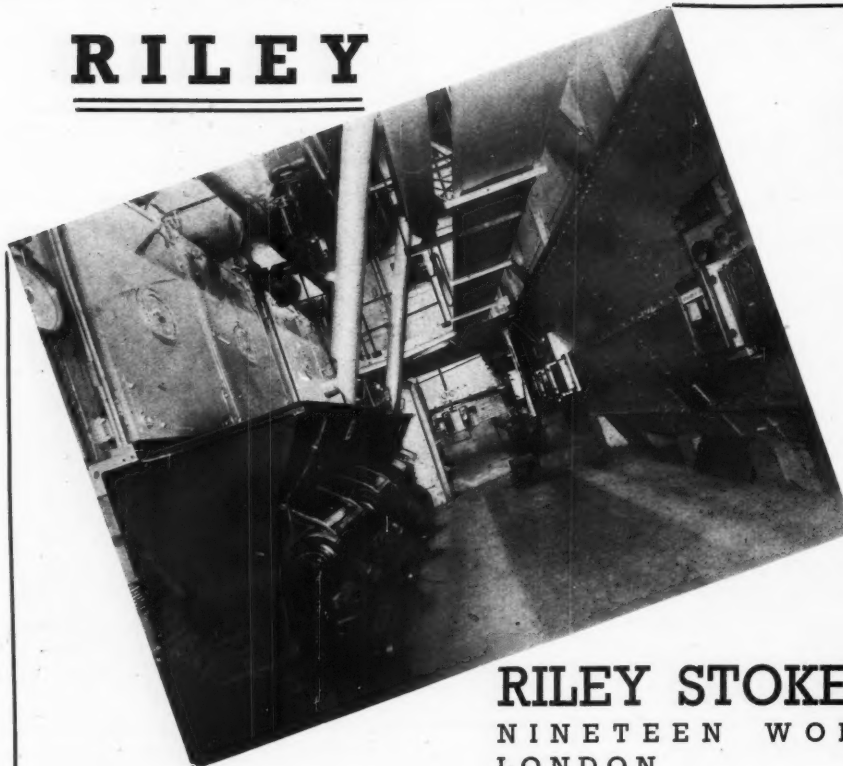


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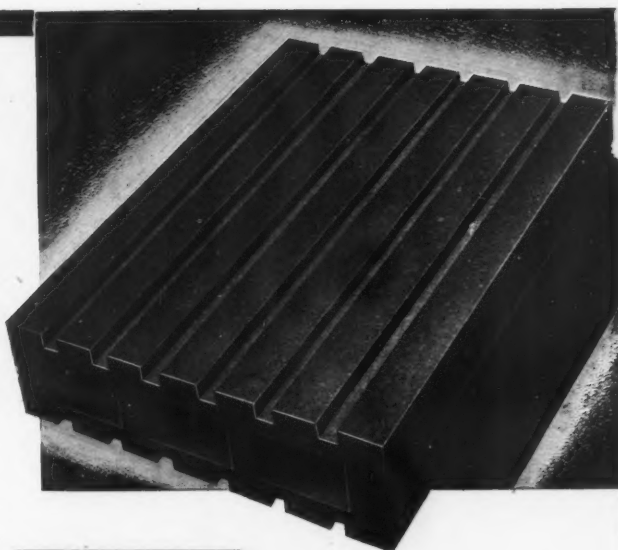
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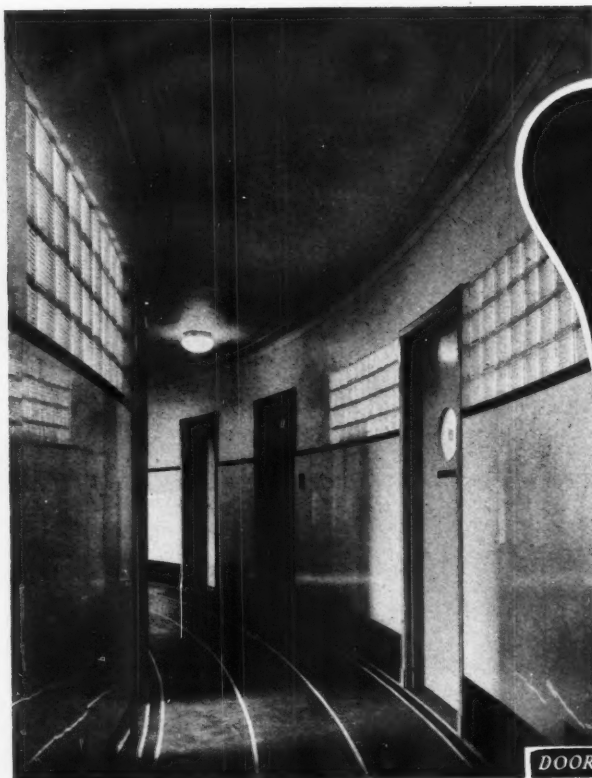
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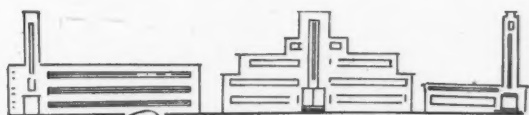
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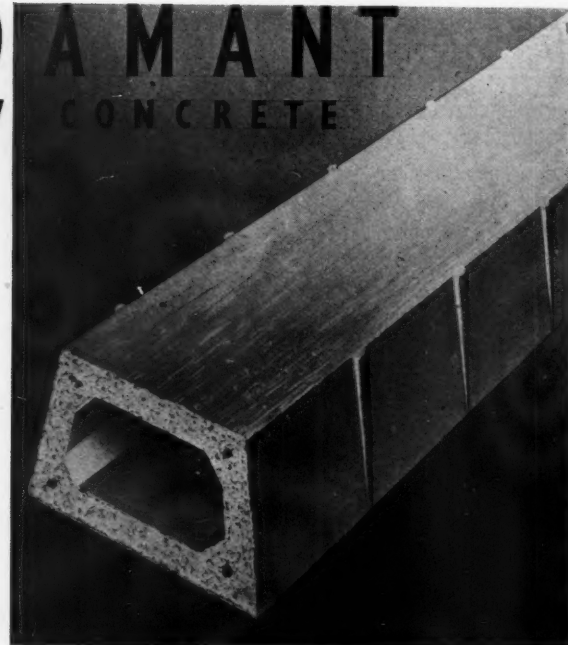
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