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THE ARCHITECTURAL REVIEW

Magazine of Architecture & Decoration



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MARCH 1937 TWO AND SIXPENCE



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THE ARCHITECTURAL REVIEW

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CONTENTS

A M E R I C A N I S S U E

GRAIN ELEVATORS	...	...	...	...	...	...	...	...	...	Frontispiece
FOREWORD.	By the Editor of the Architectural Review	...	...	...	...	...	...	...	...	Page 97
WHAT THE CAUSE OF ARCHITECTURE NEEDS MOST.	By Frank Lloyd Wright	...	...	...	...	...	...	...	...	99
ARCHITECTURE ON ROUTES U.S. 40 and 66.	By Douglas Haskell	...	...	...	...	...	...	...	...	101
HOUSES	...	...	...	...	...	...	...	...	...	110
SCHOOLS	...	...	...	...	...	...	...	...	...	119
COMMERCIAL BUILDINGS	...	...	...	...	...	...	...	...	...	126
HOW AMERICA BUILDS, 1936-37.	Technological introductions that influence the trend of building design.	...	...	...	...	...	...	...	...	...
By Richard J. Neutra...	...	...	...	...	...	...	...	...	...	132
INDUSTRY.	With article by Stamo Papadaki	...	...	...	...	...	...	...	...	137
TRANSPORT	...	...	...	...	...	...	...	...	...	140
INDUSTRIAL DESIGN	...	...	...	...	...	...	...	...	...	141
STAGE SCENERY	by Frederick J. Kiesler	...	...	...	...	...	...	...	...	142

ANTHOLOGY

Page 145

MARGINALIA

Page 145

TRADE AND CRAFT

Trade News and Reviews. By Brian Grant. Page lxxviii

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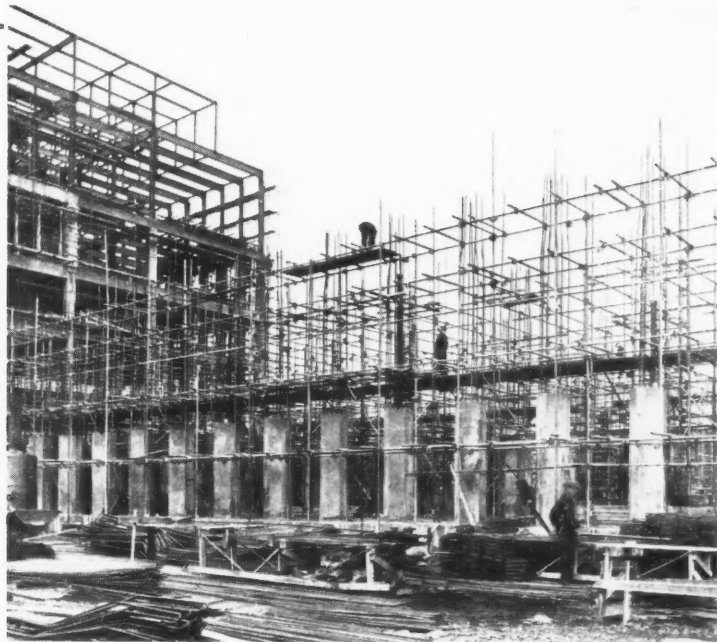
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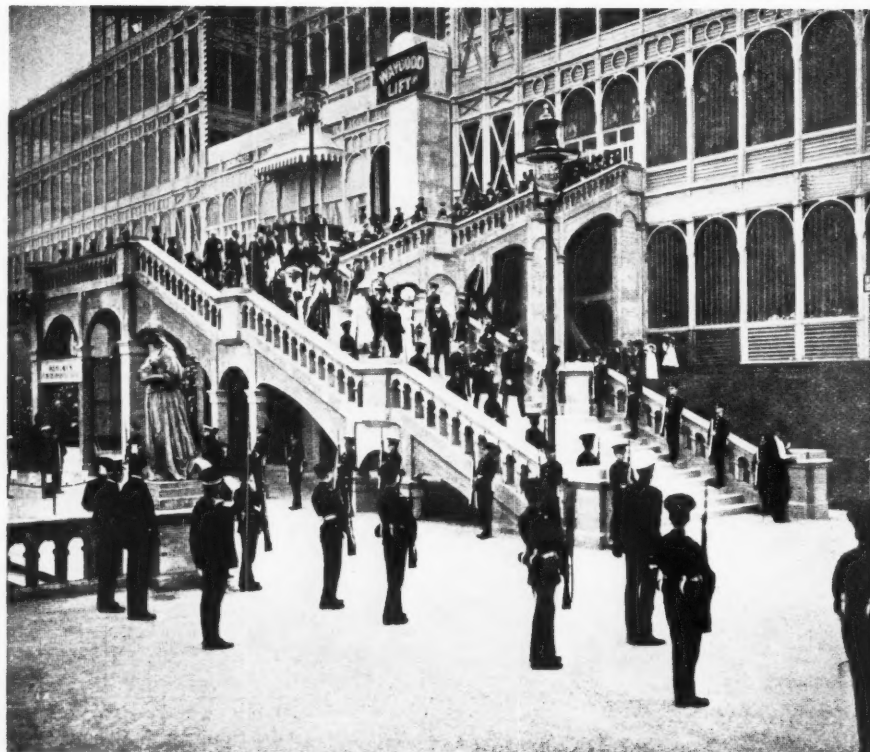
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Mr. BURNARD GEEN, A.M.I.C.E., Consulting Engineer

1911



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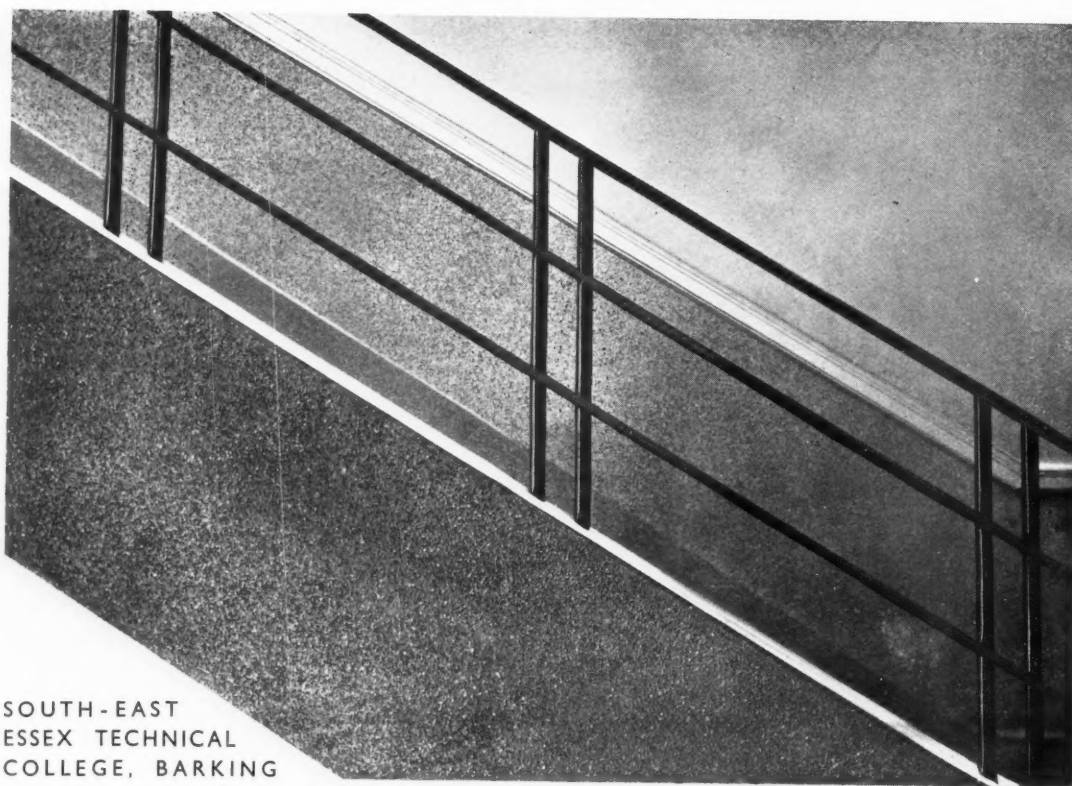
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GRAIN ELEVATORS

PHOTOGRAPH BY MARGARET BOURKE-WHITE

FOREWORD

by the editor of
the ARCHITECTURAL REVIEW

This issue of the ARCHITECTURAL REVIEW has been edited in America. It represents a journalistic experiment which may or may not be original but which is well suited for the purpose to which it is here applied.

Briefly, the story is this: the two principal English-speaking countries, though socially similar, are culturally quite isolated. America looks to Paris; Britain looks at the same time everywhere and nowhere for cultural stimulus, herself evolving to a certain degree her own characteristic art. But direct contact between the two, for some reason, is negligible. Britain, having been the country where the modern idea was earliest established (by Morris, Mackintosh and Voysey, at the end of the nineteenth century), is now at last learning the lessons these pioneers taught, after half a century of looking on while the rest of Europe profited by their leadership. Late, as always, in accepting a new way of thought, Britain may gain in the long run by the opportunity of assimilating it more thoroughly. At the moment the position is that the Modern Movement, though not yet accepted as a universal idiom, has at least been recognized as a technically reasonable and necessary revolution. It is in process of leaving the hothouse stage for the more competitive public sphere.

In America the stage appears still to be an earlier one. Although free from the conservatism that has opposed the Modern Movement in England, America has hitherto suffered from a lack of any tradition, an inherent eclecticism, that makes a movement equally difficult of universal acceptance. So far America's contribution, except for the pioneer work done by Louis Sullivan and Frank Lloyd Wright, has been solely technical, but the beginnings are now seen of a cultural school allied to the Modern Movement in Europe.

At this moment an exchange of experience between the two countries could be invaluable, and the journalistic experiment of which this issue consists is an attempt to survey the position and achievements of modern

architecture in England and America, as from the point-of-view of the two countries where the evolution is taking place.

With this purpose in mind an arrangement was made between the Editor of the ARCHITECTURAL RECORD, the distinguished American monthly, and the Editor of this paper to exchange editorial control for one month. That is to say, this March issue of the REVIEW has been organized, edited and laid out by the editorial staff of the RECORD in New York, and sent across the Atlantic on the *Berengaria* for publication here. Similarly the editorial staff of the REVIEW have edited and laid out the corresponding issue of the RECORD and sent it across the Atlantic to New York on the *Aquitania*.

It is therefore an account of American architecture, prepared by the Americans themselves, that follows this foreword. As to its value, it can speak for itself. The Editor of the REVIEW has only to thank Mr. Lawrence Kocher and his associates on the RECORD for their collaboration and express his hope that they have found the REVIEW'S account of modern architecture in this country as interesting as he believes his readers will find theirs.





WHAT THE CAUSE OF ARCHITECTURE NEEDS MOST

By FRANK LLOYD WRIGHT
TALIESIN, WISCONSIN

THE practice of the architect in the old sense as a cultured broker of cultural tastes must be making toward an inevitable out and the architect's more intimate and exacting practice of master builder, with his hands directly in the mud and money of which his buildings are made, be on the way in. Organic architecture demands this new master of building construction. I see evidence that architecture is gradually setting about making such.

Now I can only imagine what this guest-procession of young American architects, master builders, designers, brokers, streamliners, outliners and inliners will have to spread upon these liberal pages to edify their continental kin, but I imagine the spread will much resemble what the continental kin might be spreading upon similar pages in return.

I believe, however, marked evidence of progress toward clearer thinking and genuine organic handling will be seen.

This American "modern" is intensely ambitious. He knows no conscience. So zealous is he (for his "art"?) that he would not hesitate to kill his own grandmother with an axe rather than lower any prestige he has set up for himself at such sacrifice of love, honour, and friendship as he has made. There is no jealousy like professional jealousy. And some of these young "professionals" have gone prayerfully up into high mountains to discover the thing all seem to have more or less in common. Others to "discover" have made pilgrimages, to and fro. Some discoverers have taken it straight as gospel, by conversion. Others have taken their own wherever they could discover it ready-made. But all are discoverers prompted by intense ambition to succeed, and by very little continence where that success, so it seemed to them, was concerned. Some results—nevertheless—are honestly creditable—of that I am already sure.

* * *

Is all this climbing and pushing bad for architecture?

I think not, in the long run.

Meantime a branch to the left has been forced from the parent trunk of an organic architecture. You will know it when you see it. A branch to the right has also forced itself out. You will know that too when

you see it. It would seem at the moment to be the misfortune of both branches that the trunk of the tree itself goes steadily on growing up. But, there is no essential disharmony, really, because all is Nature herself.

Were it not for inconsiderate illness, I should show herewith seven pieces of recent work from my own hand that, with the characteristic modesty which has endeared me to you all, I assume to be "the trunk of the tree going on growing up," this veteran being inveterate as you see. I sometimes wish veterans might be inviolable but I know it to be better for the Cause of Architecture that they should not be. So, this one is reconciled to violation as he is still ready to violate, which is a sign of health and strength at least?

* * *

As I write—convalescent—it seems to me that what the Cause of Architecture needs most, to put it into plain homely English, is Love: Love's inevitable devotions to a great art and less concern with these selfish ambitions our capitalistic system forces to be so ruthless: less publicizing: more patient self-sacrificing appreciation. When I think of the short-cuts taken by our young men today and consider the nine years in preparation and six of practice in silence that was my lot, it is to think some modern improvement may have rendered that consecration "dated" or to reflect that perhaps such preparation may have unwittingly contributed, too much, to the "short-cut." This, from me, does sound rather "aged."

But the spirit of youth is ever the spirit of love. And love, I know, has its consecrations as surely as it is love. These consecrations are no longer possible to the eclecticism of the old grand school any more than they are possible to the exploitations of the hard-as-nails new school. But where love is, there architecture will be growing strong in its own right.

Finally, to those of you who are America abroad and those of you who are abroad in America—these four commandments where your work is concerned. They are from a modern Sermon on the Mount:

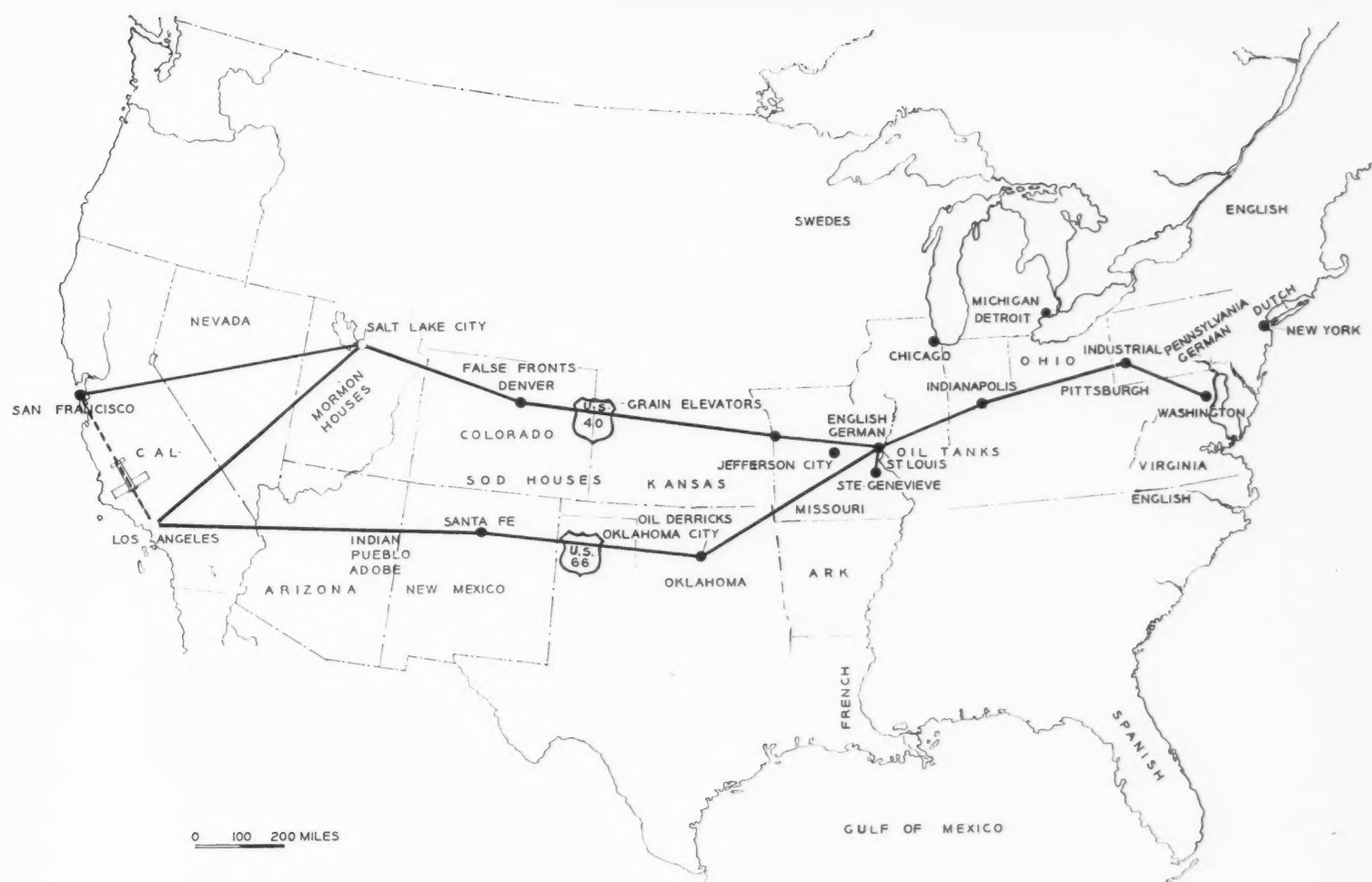
The greatest virtue of the heart—Love.

The greatest virtue of the mind—Sincerity.

The greatest virtue of the will—Determination.

The greatest virtue of the spirit—Courage.

With these four simples you may discard the less civilized Ten Commandments our forefathers needed and begin a more civilized architecture where it must continuously begin—at the beginning.



Architecture on Routes U.S. 40 and 66

By Douglas Haskell

THESE notes on American building are based on a trip of 10,000 miles by car, most of it west of the Mississippi. The report is necessarily partial and incomplete but the method of observation made the impressions vivid. Driving a car is the best way to see the United States. Automobiles are a national passion and the institutions of the country swing around their use. Building commences to come to the car instead of the reverse; indeed, building commences to grow right out of it.

A trip across the continent using not the crack trains of a Santa Fe Railroad but the highways replacing the old Santa Fe Trail will rapidly dispel the literary idea that this country is a series of dreadful Main Streets. The variety characterizing past building in the different sections is astonishing; it indicates a once vigorous capacity for adapting past experience to present need. The Georgian or Colonial mansions of Virginia that formed the Eastern prelude to our Western trip fill a large space in accepted architectural history but a small space on the vast continent, and are perhaps the most closely derivative from Europe. The highways pass into Pennsylvania country with

its charming fieldstone houses and its superb naturalizations of the German barn; through the Ohio River Valley, where the towns supply incredible instances of jig-saw gingerbread but open into their characteristic elm-shaded brooding courthouse squares; through Missouri, with stately houses once more, akin to the Pennsylvania-German ones but built of brick. If a side-trip is taken it is necessary only to drive sixty miles from St. Louis to Ste. Genevieve (if unable, as we were, to include New Orleans) in order to encounter still intact a very different civilization and type of building brought not from England or Germany but from provincial France. Across the rolling golden wheat country of Kansas the ugly little towns bob up on the horizon regularly every nine or ten miles, closing the perspective of the endless telephone lines; these towns have a skyline all their own, vertical and gaunt; but the silvery water tank, the grain silos and the elevators that compose the high points will be found on closer inspection to be honest and even handsome constructions, straight to the point and dignified by virtue of it. An ordinary little town such as Hayes, Kansas, which can produce, out of hand, the type of elevator illustrated on page 106, is



Left: A Regency house at Greenwich, New Jersey, its refinement a fitting link with the English mother country. Right: Pennsylvania-German barn, Montgomery county, 1774, with typical cattle shelter.

certainly uncouth; nevertheless its young men aspiring to become architects need not look far abroad for any "modern" sense of form.

Across the Rockies the natural scene is too stupendous to leave much attention free for buildings. The mining towns are barely civilized. Yet among the hills an occasional ranch house, its redwood sunburnt into a deep purple brown, merges into landscape with one of the richest colour orchestrations anywhere, as symbol of life in an unlimited out-of-doors. The mountain towns are job lots of boxes faced with falsefronts, thrown at random into the mud. Crossing into Utah, however, there is evidence, startling by contrast, of a new and vigorous civilization—that of the Mormons. The little town called Orderville has a name that might have stood for them all, at least until disrupted by "Gentiles" and the through passage of prospectors in the Gold Rush. Alongside the mystifications of the Mormon religion and its fantastic monuments went a hard-headed orderliness in the towns, with the school, church,

and town hall placed together on a public square which even in the semi-desert is always watered and tended. The evolution of the early Mormon houses forms a chapter in American architectural history that has been totally neglected. Good proportions and sound building are combined with a touch of decorative craftsmanship that separates this work from negative simplicity such as that of the Quakers. Prevalent names such as Jensen and Christensen indicate where some of this good craftsmanship came from. The chief Mormon valley runs south from Salt Lake along the Wasatch Mountains; following this valley, on Routes U.S. 89 and 91, we find the brown Indian pueblos of the New Mexico and Arizona country. These are already well known abroad, together with their effect on later American building; while the influence on California of a Spanish occupation that had reached a settled civilization while the New Englanders were still living in dugouts and building their first log-houses, is already elaborated in the school books.



Left: French house, c. 1836, Ste. Genevieve, Missouri. (The thin posts are the original ones.) Right: Mormon house, Orderville, Utah, c. 1845-50. (The builder probably Scandinavian.) Semi-octagonal bays and decorative dormers were characteristic early Mormon features.





Photo: Morgan



BEGINNING WITH INDIAN ADOBE

the stucco and plaster work of the south-west has long included a trend toward quiet simplicity. Clockwise: Pueblo in Arizona; house in Los Angeles, Irving Gill, architect, 1908; Los Angeles bungalow; tourist camps at St. George, Utah, and Los Angeles. Though the antique-mongers love adobe "effects" with battered edges, the Indian square keeps her house trimmed as square and true as she can.



Such a bulk of indigenous or naturalized past construction, some of it entirely unpublicized, should form a national heritage already adequate to permit the nation to pass beyond apprenticeship abroad. Of the vast continent itself, with its enormous topographical regions and its changes of climate and colour, the mere mention should suffice to indicate the unlimited nature of the architectural opportunity.

2. The Latest in "Eclectic"

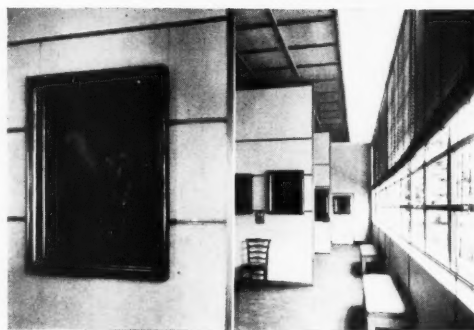
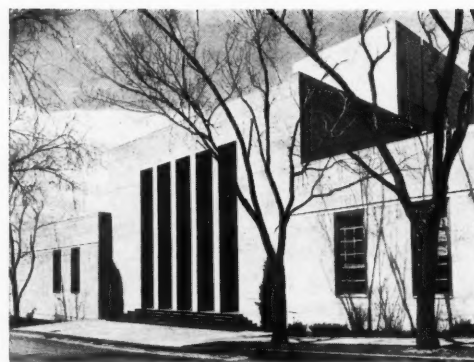
Across all this vitality and originality (arising in part from what passes for ignorance) there moves like a blight the more recent half-century or so of eclecticism. This roused Montgomery Schuyler, at the turn of the century, to define American architecture as the art of "covering one thing with another thing to imitate a third which, if it were genuine, would not be desirable." Eclecticism has undergone its own evolution. It has passed from buildings to periods to ideas. In its first phase it appropriated intact the Parthenon, Mausoleum of Halicarnassos, Baths of Caracalla, and the like, because the pioneers were homesick. The second phase appropriated not completed designs but "periods," with increasing purity. The third mingles a free reworking of period "motifs" with the appropriation from Europe not so much of designs as of guiding ideas, ideas usually ten or twenty years old; this third phase we call the "modernistic."

For the sake of the record one might report the latest manifestations of this latest phase. The large jobs worth mentioning that we saw on our way across were the Kansas City municipal auditorium and the Taylor Museum at Colorado Springs (apart, of course, from the pride of the West, the Boulder Dam, and the San Francisco bridges). The new municipal auditoriums are of civic significance as centres for community activities ranging from vast political conventions and the big prize-fights to symphony concerts, private recitals, and small committee meetings. The organization and engineering are complex and competent but what passes for the architectural treatment is basically very simple: it is a compound of German mass with decoration either based on the Paris Exposition of 1925 or the latest "simplifications" of neo-classic. The inadequacy of such an architecture is illustrated in an incident of the Kansas City auditorium (itself not an unpleasing mass) that the setback or attic showing on the exterior sits over a void, on the arms of the great trusses spanning the 138-foot width of the arena, with no service to perform except to disguise the trusses in the interest of a "feeling of stone." The Colorado Springs Museum is "mass" treated in a much cleaner way though still carved, in similarity to blocky German post-war building. To its credit is a tidy craftsmanship in concrete such as has spread from California throughout the entire West. The lounge and porch of this building, looking directly across to Pike's Peak among the high Rockies, makes use of one of the most spectacular views obtainable from any public building in America.

Eclecticism still has considerable time to run. Mr. Henry-Russell Hitchcock and other academicians are hard at it urging American architects to cover their nakedness with an appropriated "European sense of form." The urging is scarcely needed; the process is already well under way under the simple name of "going modern." The results are what might be expected.

3. The Client on Wheels

An American intent upon discovering and evolving the architecture that belongs to him has a far more difficult but



Top: Taylor Museum, Colorado Springs, John Gaze Meem, architect, 1935. Bottom: Showing unit system for removable display partitions.

satisfactory assignment than the eclectic's. He studies European achievement, to be sure, just as Europeans observed American engineering, and his solutions may be similar when the conditions are; but European usefulness ends exactly where the differences between the two continents begin.

Most of Europe, to take the example made most obvious by our trip, is a thickly settled continent that can be enjoyed on foot or by bicycle. It has a long tradition of building stressing the home as a permanent centre if not as a fort. The United States has a population density of 3 to the square mile against England's 45; in the West many of the circles on the map were found to indicate not towns but only places to flag the train, or humanity within reach. The United States is the country of the automobile, one to every fourth inhabitant, and the main growth of many a Western city has occurred since cars became widespread.

This gives significance to the astonishing growth of such institutions as the trailer and the tourist camp. These are not to be understood as having any present structural or formal distinction. They are architecture in the vernacular. Most of them are erected in the cheapest wood, brick, or stone construction. They are almost all laid out by the owners of service stations, i.e. by garage mechanics and their wives, and are therefore badly planned inside; sometimes they are quite shabby; on the approaches to cities such as Denver and Los Angeles they form what is almost a road-slum. When all this has been said there still remains in their favour that they are growing with the people themselves and present healthy new ways of living. There has been much intellectual talk in recent years about an architecture of "light and air." The tourist habit is a parallel development with the difference that it has arisen spontaneously out of the desires of masses of people. From over-night affairs the cabins have developed into vacation

homes and are now being improved in several localities into year-round apartments.

Climate and geography have divided the camps into zones. The highest development that we found was in the zone contiguous to Route 66, running south-west from St. Louis to Los Angeles through Santa Fe. Farther north a short tourist season has kept the camps more rudimentary; farther south the balmy climate has favoured a later variant—the trailer camp.

All tourist cabins and all trailers are compact, but there is an all-important element of spaciousness in the concept. Those real estate men who thought themselves clever in copying the tightness of arrangement in the "land yachts" missed the necessary complement of the tightness, namely the far-flung landscape and the wide open sky. The camp or trailer as such provides only for the sleeping and eating interval of a life in the open; it is only one element in a union composed of car, road, land. In the camp or trailer not merely cabins and gadgets but the landscape and the open sky are built in.

Frank Lloyd Wright was perhaps the first to project imaginatively, as "Broadacre City," the type of community that might arise out of the nucleus of the gas station and its related services. Making no use of imagination as mature as his, but merely out of the situation itself, the camps are branching into a considerable variety of embryonic communities. A composite description: the car goes into a shed adjoining the cabin, or into a separate row of sheds, or, in desert country, can stand in the open; sheds have doors or none. The car can be washed and greased at the service station over-night, or wash it yourself in the morning. Cabin provides individual toilet and shower or bath; in rare instances there are available only community "rest rooms." Living and sleeping space occupies most of the cabin; two cabins open together for a 2-room apartment or larger cabins are laid out as 2-room apartments. A kitchen exists in permanent vacation camps rather than in transient tourist camps; utensils are furnished or bring your own, bedding ditto. Groceries and supplies at the camp store. Coil spring "Beautyrest" mattresses are all too common; too yielding. Laundry is done in the kitchen, drying in the common court. Children's play apparatus at one end of court: outdoor furniture for adult gabbing at the other.

The latest tourist courts such as those encountered at Amarillo, Texas, or Joplin and Jefferson City, Missouri, are the envy of local hotels since they not only perform every hotel service but eliminate the obstacles and tips which a hotel

obtrudes upon the handling of the car and baggage; you can manage your own. Local politicians at Jefferson City, capital city of Missouri, so appreciated the opportunities of privacy that they wanted to rent apartments the year around; but they could secure no reduction from the daily rates. As a commentator remarked, remembering the unpublished collateral uses of a tourist camp, why make a reduction when you might rent it every night, up to two or three times?

4. Technical Laboratory

We unfortunately encountered no trailer camps as such. Trailers have reached such importance that they drew attention away from the cars in the last New York automobile show. They exist for a wide range of purposes in a wide range of design, from closed cars with convertible Pullman seats for rapid travel to a model, as yet unbuilt, for a two-storey movable house, intended to move rarely and slowly, and provide for an entire family. Tourist camps flourish in Florida, the camps supplying parking space with electric and water connections, and performing the routine municipal services for their migratory customers.

The trailer is of utmost importance in a field as yet untouched by the tourist cabin, namely as laboratory for scientific and economical shelter construction. A frontal attack was made in the field of housing, as such, under the banner of "prefabrication," but remains stymied by the combined investment of real estate interests in obsolete properties and of manufacturers in obsolete equipment. From these obstacles automobile manufacture is largely free, in part because the customers expect efficiency and progress, in part because manufacturers, unlike real estate operators, accept and provide for obsolescence as an incident of improvement. Such development can proceed unhampered as well by stylistic shibboleths such as the demands of our "international stylists" for a compulsory flat roof and compulsory columns to bump into at regular intervals.

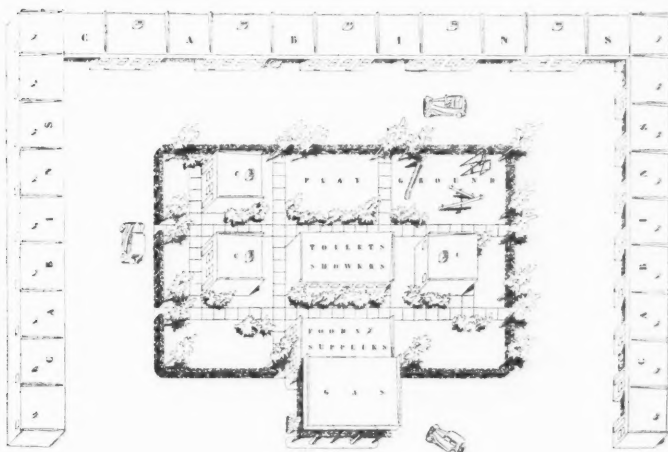
5. A Modern American City

If cabin and trailer camps along the way indicate a future opportunity rather than an achieved present, they also serve to prepare the traveller for the openness and modern lay-out of the Western cities. I select Los Angeles, the terminus of our trip, not intending to declare it a more agreeable city, everything considered, than compact and beautiful San Francisco, but because certain objective factors are especially favourable to modern architecture there.

Los Angeles is a city built on the automobile as Boston was built on the sailing ship. Los Angeles appears to casual view as a series of parking lots interspersed with buildings. No large American city has so much downtown land listed as "vacant" or occupied by "taxpayers"—the figure is something like 20 per cent. Yet these parking lots are functionally as indispensable as a car is. Apart from a downtown office section, the "city" is a string of satellite communities. Jokers declare that Los Angeles City Limit signs are to be found in Alaska. One thousand of our ten thousand miles were consumed in our short stay in this one city.

Other factors combine with the openness of plan to favour a modern architecture of movement and spaciousness. The climate is not typical of the continent as a whole but it favours experiments in breaking down hard boundaries between indoors and outdoors that technical improvement can later carry north. Industry is not thought of as a large factor in Los Angeles, apart from the movies, in part because the industry that exists there is so modern as to have become unnoticeable. That is, a rubber

[continued on page 108]



Tourist Camp lay-out, Raton, New Mexico.



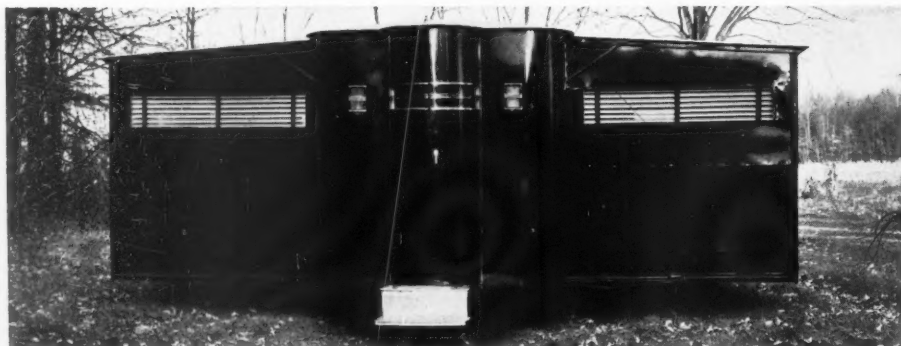
Colorado Falsefront



Hayes, Kansas, Grain Elevator

V E R N A -
C U L A R
F O R M S

As store-keeper the Westerner felt obliged to "put up a front"—literally a falsefront—but his industrial structures remained clean and unadorned. Even a small town often possesses grain elevators and mills of astonishing purity of form adapted to purpose. The "mobile house," designed by William B. Stout, shown below, strives with the same economy to put a living room, kitchen, bath, and twin bedrooms on wheels. The photographs show the trailer opened as a house and closed for driving.



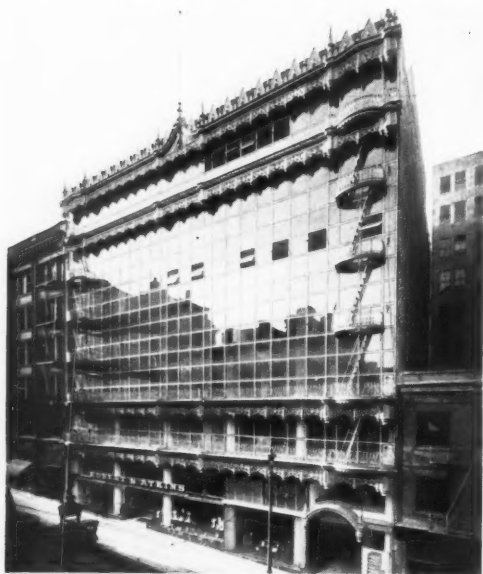
Mobile House, designed by William B. Stout.





*Cabins for Nomads. "All are compact, but the concept includes the far-flung landscape and the wide open sky."
Top: Trailer in camp. Car and trailer designed by William B. Stout. Below: Cabin in the desert, by Frank Lloyd Wright; stone cabins, Mojave Desert; sheet material and stucco camps in Oklahoma and Missouri.*

WORKING INTO "MODERN"



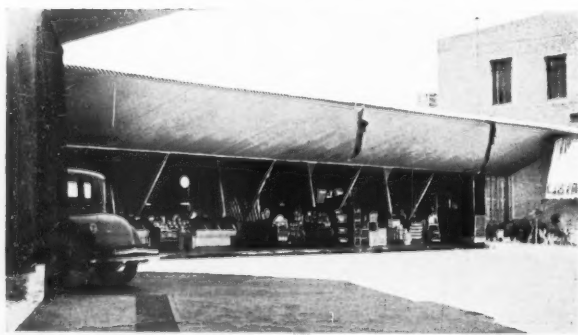
Hallidie Building, San Francisco, 1918. Willis Polk, architect



School, Denver. Wm. E. and A. A. Fisher, architects



House, Salt Lake. Slack Winburn, architect



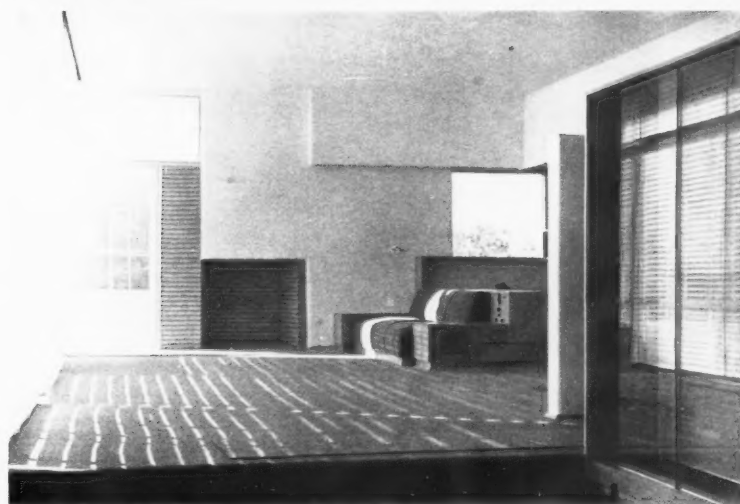
Drive-in Market, Los Angeles. Lloyd Wright, architect

industry second only to Akron occupies plants so nearly automatic as to have created no industrial slum and therefore no awareness of its existence. In construction, Californian skill with materials such as concrete has been employed under the influence of a Mediterranean, or Spanish, tradition of relatively simple, horizontal forms under a unifying colour of white. The presence of some of Frank Lloyd Wright's mature masterpieces serves as a rallying point. Architects are present who have received part of their training under him. The inexpensive land available on hillsides and along canyons assures the modern architect that the openness he achieves and his sweeping views will remain relatively undisturbed by later stupid neighbours.

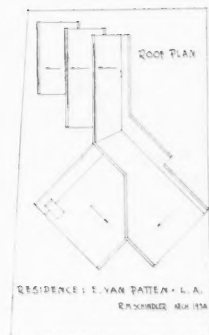
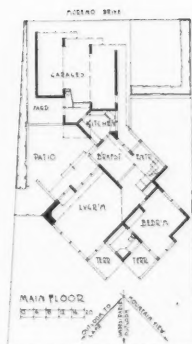
Among modern architects working in California and Los Angeles are Richard Neutra, R. M. Schindler, Lloyd Wright, Fred Monhoff, and, intermittently, Lawrence Kocher and Albert Frey. Among these, Neutra, an Austrian by birth, is perhaps the best known, by virtue of representing the United States abroad in international congresses and of winning medals in highly publicized competitions such as those of General Electric. Neutra is shrewd, an organizer *par excellence*, paying meticulous attention to working detail, and absorbed in problems of generalization. He writes for himself in the present issue. If Neutra is open to criticism it is on the score of a certain meagreness in what might be called the sensuous aspects of the house, such as colour and variety of space and form.

Schindler, less well known, works chiefly on more modest projects, and is in some ways the complement of a type of mind such as Neutra. He pays scant attention to schematic construction, accepts the wood frame and stucco that are the present-day cheapest acceptable materials (and in which most modern work by anyone has to be done regardless of theory). The profiles are unforced and in consequence heavy, and the interior finish sometimes unduly rough. These are the negative aspects of a particularizing type of mind that has its own strength. Thus, if the copings and overhangs are coarse, this is more than compensated for by the use of individually designed and fabricated window sash that give fine lines where they are most needed in presenting minimal obstruction of the view, and where they are simply not to be had in present-day factory-fabricated profiles. Schindler's strength is further in creating splendid spaces with excellent orientation to site and view; well organized so that, as in an amphitheatre, the tallest objects are unobtrusively in the rear. He has been able to capitalize site restrictions calling for sloping roofs to create rooms with a still greater sense of opening up to the landscape and the sky. The psychological rather than the structural requirements have been dominant. Men of this type are useful in preventing structural systems and stylistic mannerisms from freezing.

These notes are offered in consciousness of their incompleteness and partiality. There is not even mention of the Eastern modern architects, nor a description of the latest work by Frank Lloyd Wright including the new Kauffman house in Pittsburgh; Wright's work in its totality, the ideas as well as the examples, the latest even more than the earliest, is still, despite large areas open to controversy, the greatest single accomplishment that this continent can offer as modern and specifically American. I have here sought to indicate only the presence of a large body of good past work seldom spoken of by the historians; the opportunity offered by developing popular institutions such as the tourist and trailer camps for modern architects to attach themselves in freedom from obstacles piled up around orthodox "housing"; the existence of cities in the West already pointed toward the new and the presence within them of men already doing good modern work.



Van Patten house, Los Angeles, R. M. Schindler, architect. Exterior above, interior and plans below. Illustrating the freedom still open to the designer not enslaved to cubes and flat planes. The sloping roof was imposed by legal site restrictions; it became the guiding feature of the design; its direction echoes in the ramps and knee-brace balconies. It is capitalized inside as a sloping ceiling opening the inner space still wider to hillside view and sky. Windows are treated as screens hung from the ceiling, placed well back from the edge to eliminate mental associations with box-like boundaries. The house is divided in a skilful orientation to the view, for purposes of including the desirable mountain scene while blotting out unsightly structures in the foreground. Shown above and on left, are two details of a speculative house for C. C. Fitzpatrick, Los Angeles, R. M. Schindler, architect. "Specially built window sash give fine lines where they are most needed in presenting minimal obstruction to the view and where they are not yet to be had in factory-made profiles." The photo of the room is a straight snapshot made possible by the even tone of successful modern natural lighting.



RICHARD J. NEUTRA



A



B

RESIDENCES IN CALIFORNIA



C

RESIDENCE OF MR. AND MRS. ALBERT RUBEN, UPLIFTERS CANYON, CALIFORNIA. A, West front facing the ocean. B, private living room, joining masters' bedroom. C, lounging porch. D, V.D.L. RESEARCH HOUSE OVERLOOKING SILVERLAKE. Architectural Relation to Landscaping. Gazenias—sulphur yellow; Lantana Radiation—orange; Chester daisies—white-yellow; Monterey Cypress, Juniperus Sabina, Juniperus Tripartita, form evergreen frame; Deciduous California sycamores and a wisteria growing along entrance pergola and upstairs porch to roof give indication of the changing season.

The exterior shell, a waterproof, mica glazed, lightweight pumicite slab, is of light oyster shell colour. Posts, window frames and sheet metal facing of eaves are aluminium.

E, ALL-ELECTRIC HOUSE FOR MR. AND MRS. JOSEF KUN, HOLLYWOOD, CALIFORNIA. GREGORY AIN, COLLABORATOR. Street front.

F, LANDFAIR DWELLINGS, WESTWOOD, CALIFORNIA. PETER PRISTERER, COLLABORATOR. Two and three bedroom units in one and two storey arrangement with two bathroom, living-dining room combination. Each apartment has a roof garden.



D



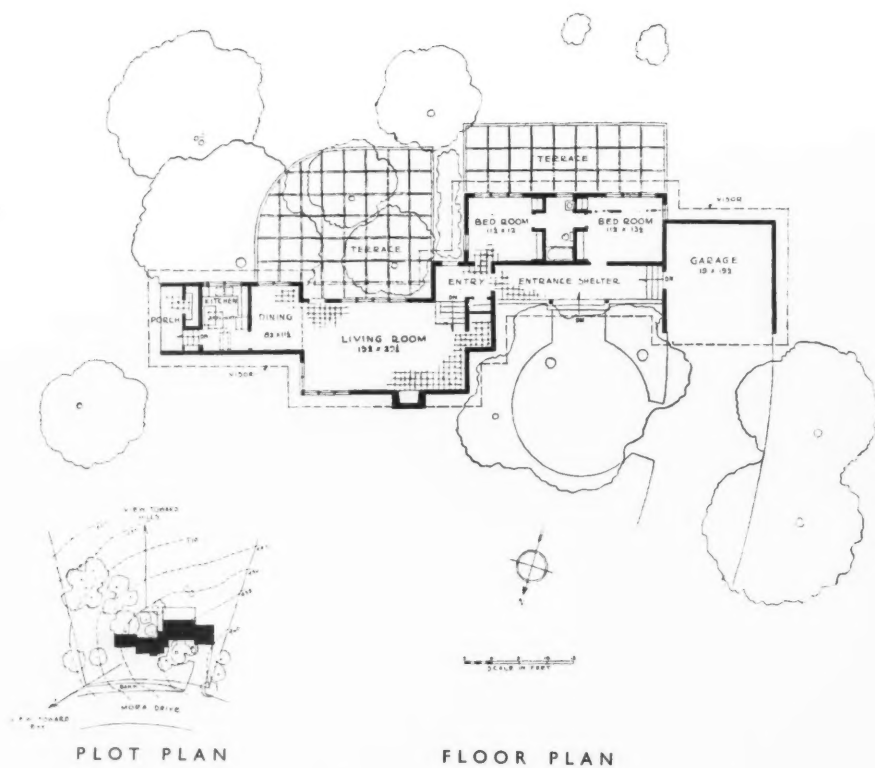
E



F



All photographs by Roger Sturtevant



A HOUSE FOR MR. F.



RESIDENTIAL



FRANK McINTOSH, SANTA CLARA COUNTY, CALIFORNIA



The wall construction is of pre-cast concrete. These wall units are joined together by continuous steel rods, extending from foundation to roof level. Advantage was taken of the natural slope of the hilltop and of oak trees in placing the plan components. These parts are joined by two sets of stairs.





A

REAL ESTATE OFFICE AND APARTMENT BUILDING, PALM SPRINGS, CALIFORNIA

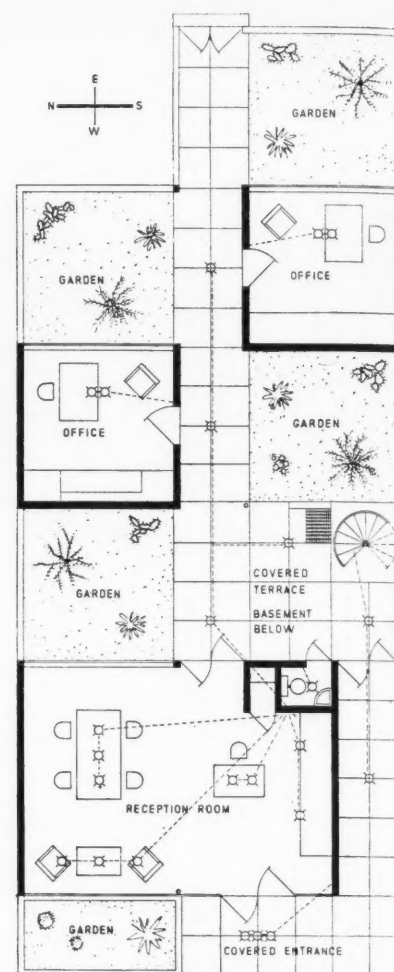
A. OFFICE BUILDING FROM NORTH-EAST (Side View). Ground floor is used for sale of real estate. There is an apartment on the second floor with terraces on shaded side. Walls are warm white; window and door frames, Indian red; railing and columns, jade green. B. INTERIOR OF REAL ESTATE OFFICE, RECEPTION ROOM. Exposed stamped steel ceiling with tube lighting in recesses over working spaces. Ceiling of jade green; linoleum floor of sand colour; aluminium surfaced curtains. C. SECOND FLOOR WALL FRAMING of stamped steel wall units, welded together. All walls have diagonal bracing. D. STAIRWAY TO SECOND FLOOR APARTMENT. The open arrangement of building parts aids air circulation and obtains coolness. Over half of ground area is shaded. All rooms face toward interior garden patios.



B



C



GROUND-FLOOR PLAN. Reception room is connected with private offices by means of a covered passage. All rooms have a glazed and ventilated wall in the direction of an adjoining garden patio. The side entrance leads to stairway and apartment above. Each garden plot has a sprinkler at pavement edge to produce a desired humidity and coolness, by evaporation.

NATURE OF BUILDING: Real estate and insurance offices. The site is a typical business plot of narrow but deep dimensions. Because of this narrow lot shape, it was decided to have an arrangement of rooms that open internally. The two limiting sides of the property have blank inclosing walls where, later on, adjoining buildings may cut off view, light and air.

VARIED USE: A second storey was considered essential, as adding to the vertical size of building (advertising value) and to insulate and shade the rooms below. It was considered desirable to have all required offices on the ground floor. A small apartment with a side entrance was decided on for the second

floor. There is an independent car shelter for the use of building occupants, located at the rear of plot.

CLIMATE: At the beginning and end of the season, September, October and April, May, the temperature varies from warm to hot. 115 degrees Fahrenheit is not unusual at noon during summer months. From November on, until March, the days are warm (through sun radiation) and nights are cool.

SOIL: Dry sand of uniform density; desirable ground for foundations. There is no quicksand nor danger of washing out; no piling necessary; satisfactory for septic tank sewage disposal.

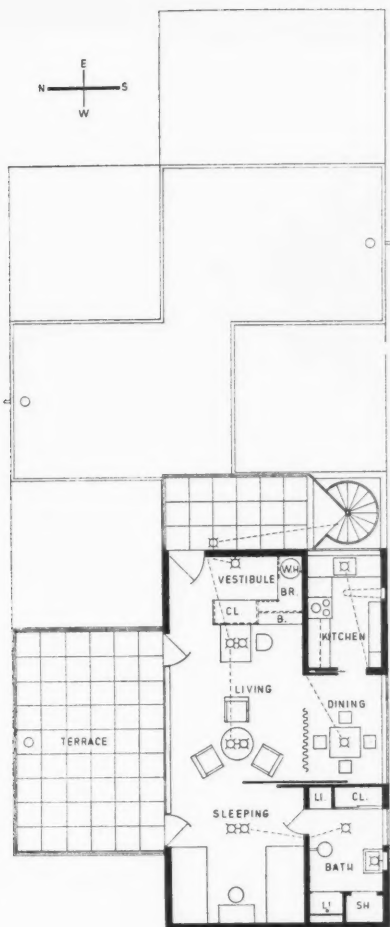
WINDS: North and north-west prevailing; cool breezes almost daily. During December and to

February, sheltered areas are preferable because of the coolness of winds. In warm weather it is desirable to take advantage of breezes by cross ventilation. Kitchen location in apartment on second floor is at side where winds escape, so cooking odours do not enter other rooms.

At times wind develops into a sand storm which sweeps fine sand through every crevice and into the house. Tight construction is essential and all sash are weatherstripped with felt.

Sudden gusts of wind occasionally play havoc with large awning, making more sturdy shade imperative.

CONSTRUCTION: Fireproof construction was regarded as an asset to the occupants' business of



SECOND-FLOOR PLAN (APARTMENT FLOOR). The large single-room apartment has provision for separating sleeping alcove by a sliding partition and for giving privacy to dining space by a floor to ceiling curtain of ciled silk.



D

selling insurance. Footings are of reinforced concrete, 18 in. wide, 12 in. to 18 in. deep. There is a 4 in. integrally coloured concrete slab at first floor. Floor covering throughout the building interior is linoleum.

First storey walls are of concrete blocks with vertical steel rods every six feet, tied to footing and lintels. All wall corners are poured reinforced concrete. There is a continuous bonding beam or lintel at plate line of exact thickness of wall and 8 to 12 in. in height. This occurs over all walls, door openings and windows and forms, together with all reinforcements and footings, a completely rigid frame. This special concrete framing is intended as precaution

against twisting and injury by earthquakes. Second floor walls are of lightweight pressed steel frame welded in sections at factory and electrically welded on site at erection. Factory sections were a maximum size for transportation by trucks.

The outside of frame is faced with expanded metal lath and (Gunitite) cement stucco. The interior is cement plastered on a metal lath that has an aluminium-faced building paper as backing (insulation).

All floors and roofs are of Robertson Keystone beam units of 18-gauge steel. These beams are exposed at ceilings. Floors are supported by bond-beams over walls and anchored or welded to I-beams, which in

turn are for bearing. In some cases steel pipe columns serve for supports.

Roofs have 1½ in. insulation board, mopped to steel deck of Robertson units. A three-ply built-up roofing is applied over insulation board and, finally, a gravelled surface.

HEATING : Warm air, single duct, for reception room and apartment. Gas furnace in basement, below garden terrace. Individual, vented gas heaters circulating warm air, in private offices.

LIGHTING : Lumiline lamps (30 and 60 watts) recessed in ceiling beams. Lamps are located over working areas to provide a minimum of fifteen foot-candles intensity.

RESIDENTIAL



STAIR HALL IN CRYSTAL HOUSE NEAR CHICAGO. GEORGE FRED KECK, ARCHITECT; LELAND ATWOOD, ASSOCIATE. Furniture in dining room by Chicago Workshops.



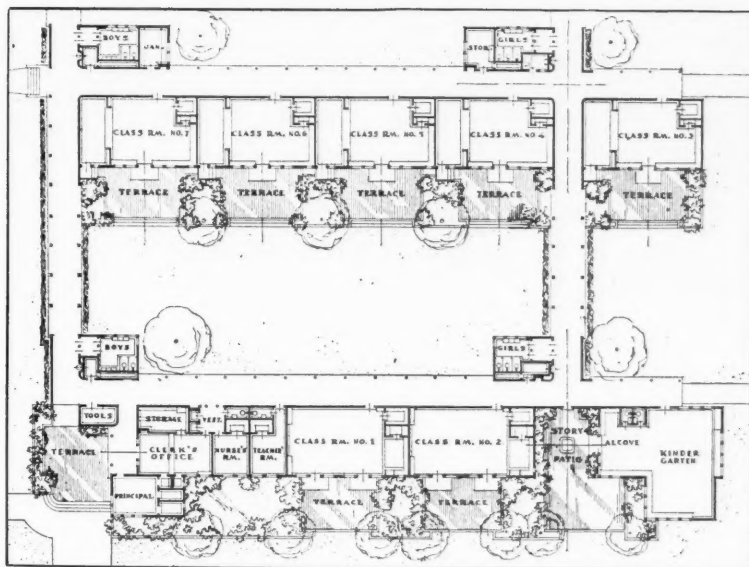
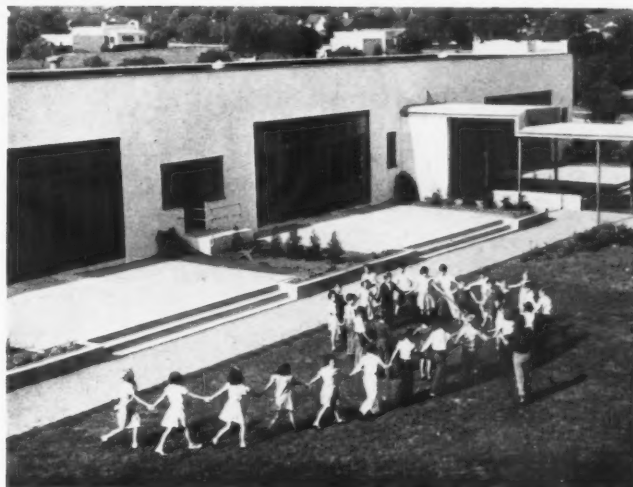
WILLIAM LESCAZE



HOUSE FOR MR. AND MRS. P. C. KRAMER
NEW YORK CITY



ROOSEVELT SCHOOL
SANTA MONICA, CALIFORNIA



THE SANTA MONICA PLAN

In the construction of the Roosevelt School several underlying principles were recognized :

1. In an earthquake area schools should be designed to protect their occupants as completely as possible.
2. In a California school even more recognition of outdoor life should be given than heretofore.
3. In order that progress in educational methods may be made effective, the plan arrangement of the classroom should help, rather than hamper.
4. In recognition of new uses and of new materials available, the architectural appearance should be a direct expression, instead of a complement to tradition.
5. Expansion is recognized from the outset as a requirement of a growing population.

Taking these five basic assumptions in more detail, and starting with the earthquake factor in design, the building is kept one storey high for the obvious reason that the possible hazard of a second storey is thereby eliminated. An additional influence on this point, however, is that it is also possible to develop the combination of outdoor-indoor classrooms for all classrooms in a one-storey building.



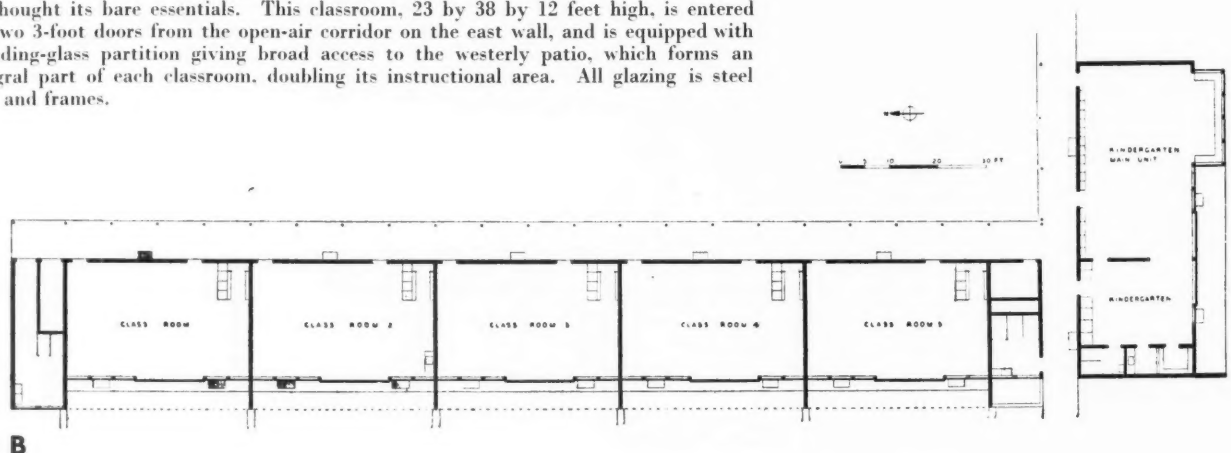
A

SCHOOLS IN C

RICHARD J. NEUTRA has for many years studied the relation of the newer methods of education to the school plant. The old time listening school, where the three R's were taught in an academic way, could well get along with fixed seating arrangement and desks screwed to the floor. The teacher then faced the pupils and poured instruction into them. Now the teacher has become a member of an active group that freely works around in the classroom, constructs, builds, sews, dyes, handles all kinds of materials and tools as in the former manual training room, or performs in self-prepared costumes and in spontaneous dramatics. The academic subjects—reading, writing, arithmetics—are learned, while the children do their own research in illustrated books on the specific subject of activity, estimating the quantities of material used, writing reports on the work they have done, and preparing programmes on the work they are going to do. The whole process holds the active interest of the children so that the problem of discipline becomes very much reduced. This is called unit of experience training. It calls for classrooms with light from more than just one side. It calls for material storage for small lumber, paints, clay, fabrics, for a sink with running water in each classroom, and so on.

Mr. Neutra studied the best public schools in most European countries, and Japan as well as in the United States, and tried to profit from these experiments. Eight years ago he developed the elaborate plans and ideas for the California Ringplan School: it was first published in his second book, "America, New Building in the World."

THE EXPERIMENTAL SCHOOL PLANT AT BELL, CALIFORNIA, A, B, designed with the valuable co-operation of the experts of the Board's architectural division, is the fruit of all these studies from which other cities of the country may profit. As costs could not be determined comparatively concerning the more irregular ingredients of a school plant, Mr. Neutra chose one activity classroom of his design, reduced to what he thought its bare essentials. This classroom, 23 by 38 by 12 feet high, is entered by two 3-foot doors from the open-air corridor on the east wall, and is equipped with a sliding-glass partition giving broad access to the westerly patio, which forms an integral part of each classroom, doubling its instructional area. All glazing is steel sash and frames.



B

RALPH WALDO EMERSON JUNIOR HIGH SCHOOL,
LOS ANGELES. C, Activity classroom, instructional area
extending outdoors.

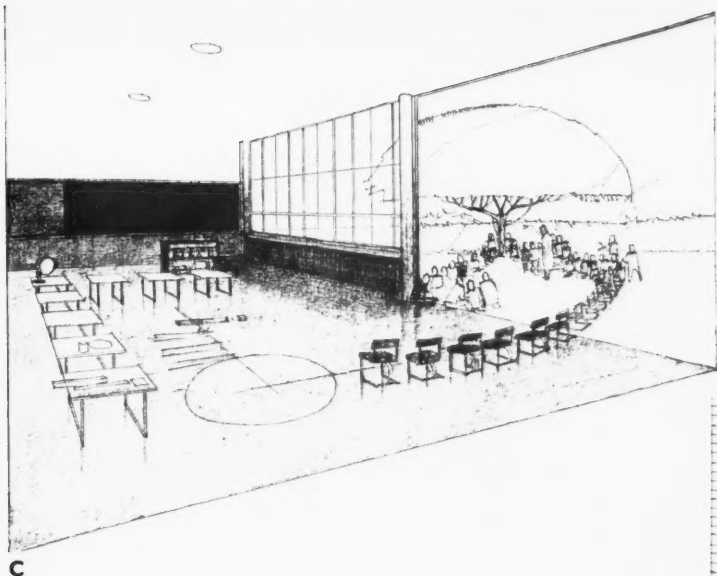
KEY TO FLOOR PLANS

GROUND FLOOR PLAN

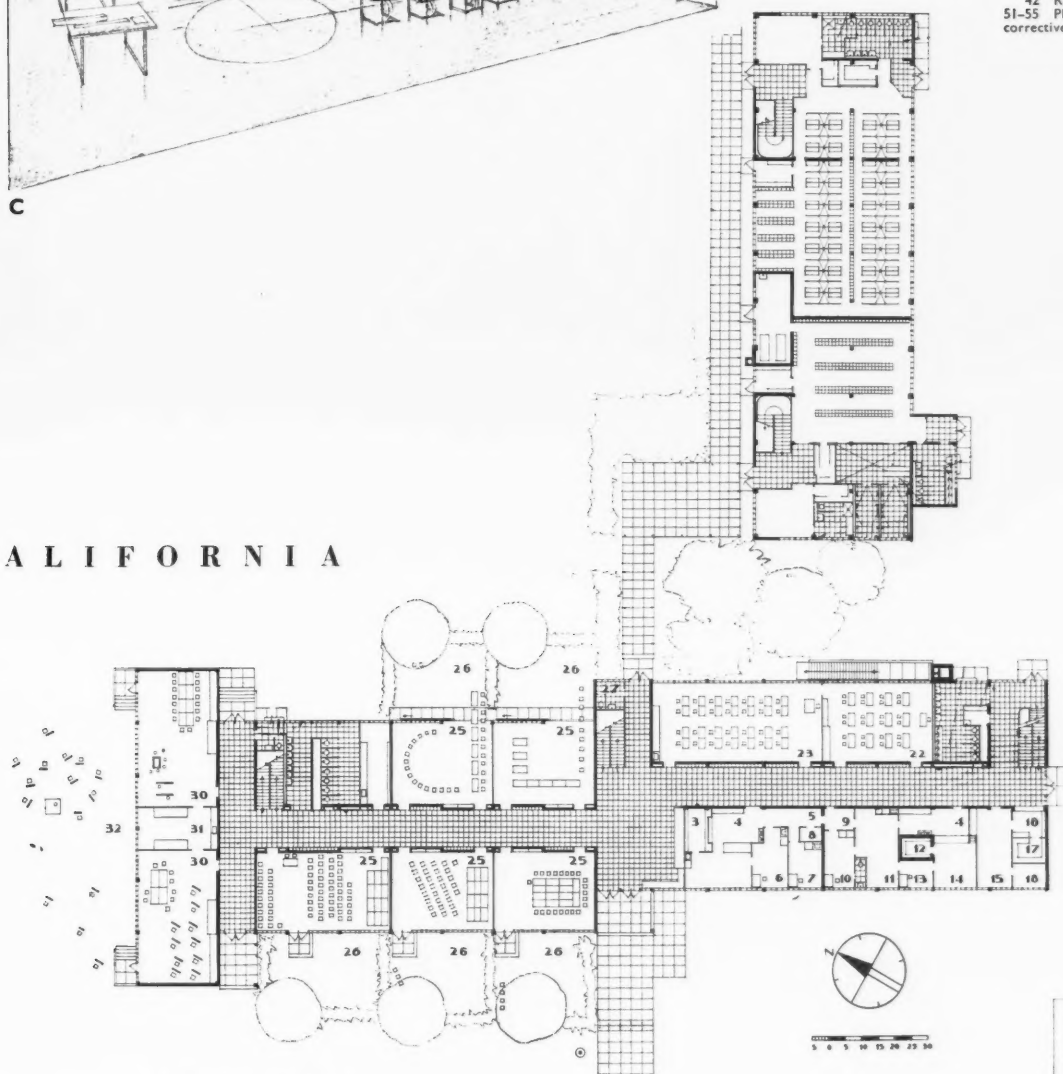
- 3-18 Administration unit with mental and personality testing laboratory.
- 22-23 Practical business training.
- 25-26 Activity classrooms indoors and outdoors.
- 30-32 Art department.
- Physical education unit placed between girls' and boys' play yards, with
baths, physical culture office.

UPPER FLOOR PLAN

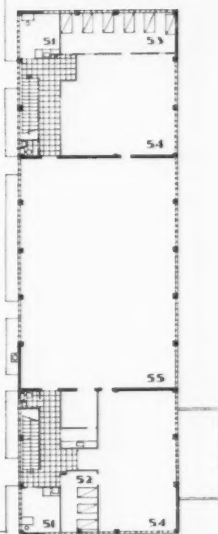
- 25 Academic classrooms.
- 33-35 Music department with open-air terrace.
- 36-40 Teachers' rest- and work rooms, seminary and textbook rooms.
- 41 Library.
- 42 Recital room.
- 51-55 Physical examination, doctors' offices, physical culture practice,
corrective exercise, relaxation rooms.



C

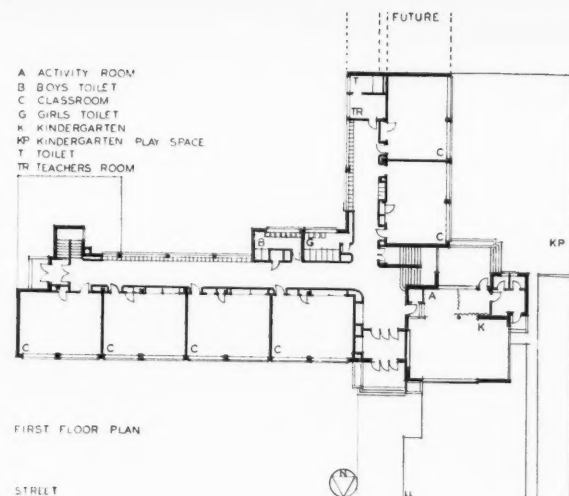


GROUND FLOOR



UPPER FLOOR

N CALIFORNIA



GRADE SCHOOL A

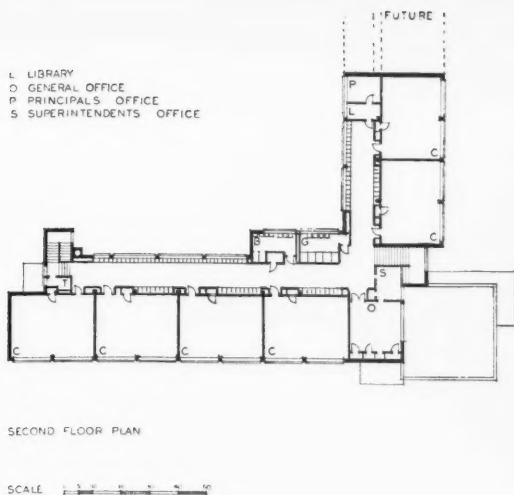
PLANNING: Arranged to face principal street and have no classrooms facing the noise of the major playground at a lower level located inside the L. Classrooms on one side of corridor affording best light and ventilation. Kindergarten planned practically as a separate unit with entrance, coatroom, toilets, terrace and playground. South wing arranged for future extension. Boiler room located at end of building adjacent to present building which will also be heated from the new plant.

CONSTRUCTION: Concrete frame and exterior bearing walls structure with concrete joist floor and roof slabs. Exterior walls of face brick. Monumental type steel sash mounted flush with brick surface by special detail. Stone coping. Concrete canopy slabs. Glass block light panels in stairs, kindergarten, and playroom.

INTERIOR FINISH: Painted plaster walls and furred ceilings. Hollow metal entrance and vestibule doors and frames. Hollow metal frames to all classrooms, metal plaster clip trim throughout. Flushwood interior doors, linoleum floors throughout, with exception of terrazzo in corridors and on stairs. Stairs have alundum abrasive and built-in aluminium tube rails with satin chromium brackets. Hardware with satin chromium finish throughout. Casework and cabinets of birch plywood.

LIGHTING: Indirect fixtures with silvray processed lamps in classrooms and offices. Corridors and other spaces have recessed reflectors with lens or louvers as suitable. Inside row of lights in all classrooms are automatically controlled by photo-electric relay to maintain required intensity.

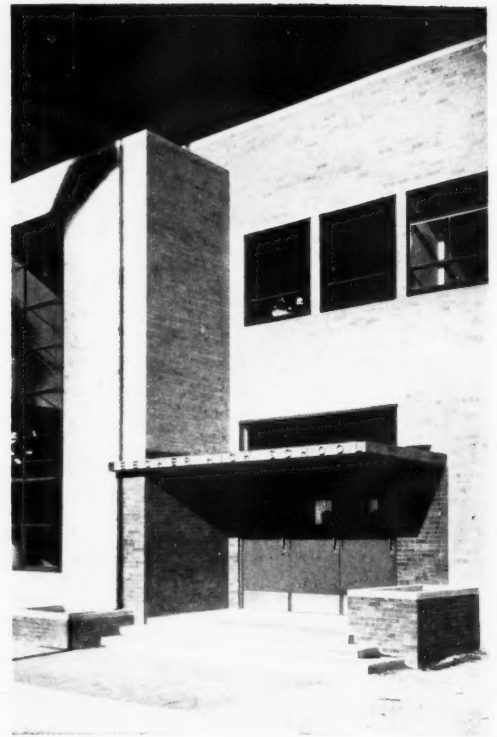




BEECHER HIGH SCHOOL, FLINT, MICHIGAN

OL AT NORTHVILLE, MICHIGAN





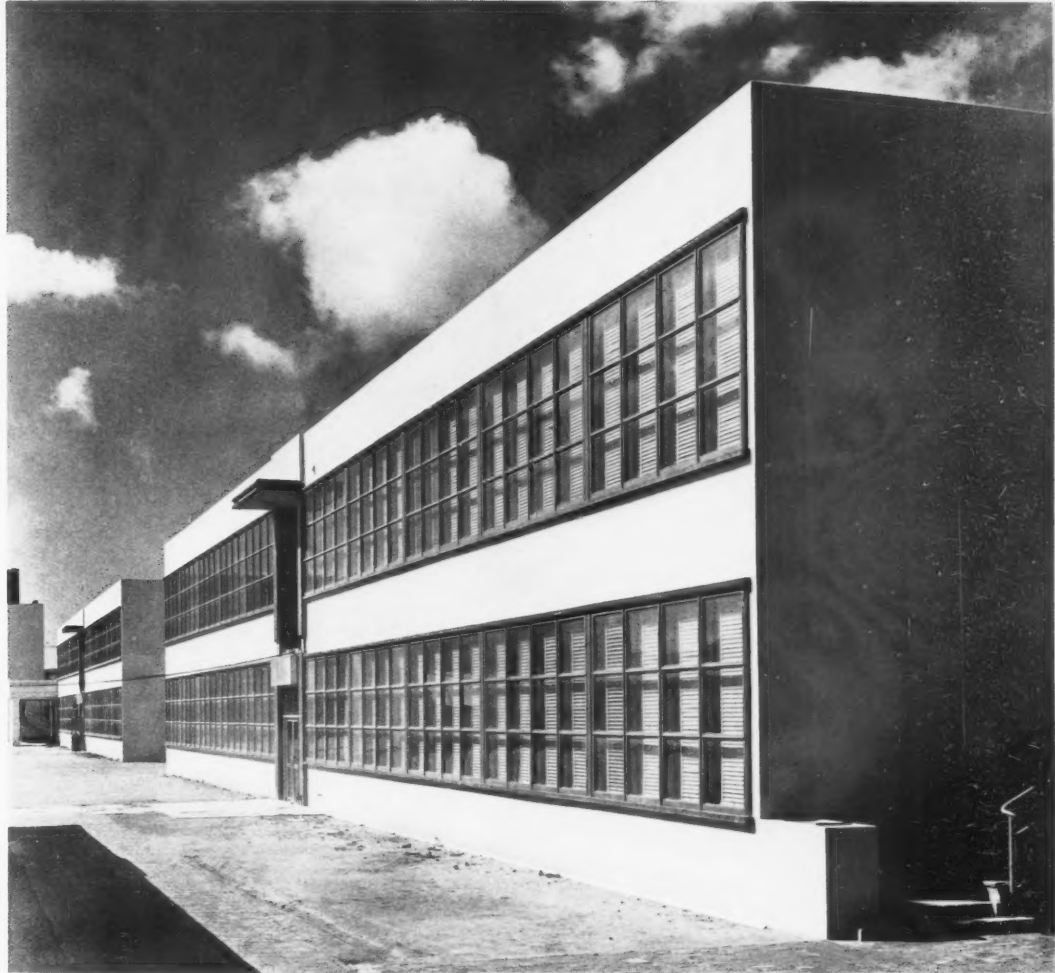
BEECHER HIGH SCHOOL FLINT, MICHIGAN

PLANNING: Conditions dictated maximum space of substantial building with available funds, planned definitely for economical extension in near future. Hence, concentration of mechanical facilities at one end to facilitate extension with steel stairs at other end which can be moved as required. Standard classrooms required.

CONSTRUCTION: Concrete frame and exterior bearing wall structure with concrete joist floors and roof. Exterior walls of face brick. Monumental type steel sash mounted flush with brick surface by special detail. Stone coping.

INTERIOR FINISH: Classrooms and offices, plaster walls, furred ceilings painted, linoleum floors, metal plaster clip trim, flush wood doors, slate blackboard. Corridors painted; plaster walls and furred ceiling, terrazzo floor and base, recessed steel lockers, satin aluminium hardware. Stairs, terrazzo risers and treads with alundum abrasive. Built-in aluminium tube handrail with satin chromium brackets.





POLYTECHNIC HIGH SCHOOL
LONG BEACH, CALIFORNIA



The facilities required were as follows :

ACADEMIC: (1) Commercial and science buildings; (2) music and fine arts buildings and library; (3) administration and liberal arts buildings.

PHYSICAL EDUCATION: (4) Athletic field and buildings.

MANUAL EDUCATION: (5) Manual arts buildings.

The relative grouping of these elements was determined by consideration of three basic factors: (1) Noise—internal, external; (2) convenience: public, students and faculty; (3) space requirements. Commercial and science departments were placed on the main thoroughfare. The courses of study given by these departments, involving for the most part the use of typewriters and other equipment, do not require freedom from outside noises. These buildings also act as a screen for those behind.

The school cafeteria is undisturbed by outside noises, and is also open to the public at certain times. For these reasons it was placed at the north-west corner with the minor street used for a service entrance.

The manual arts department is located along the north street to facilitate delivery and removal of materials and equipment.

The administration building is located as near the physical centre of the project as possible for reasons of quiet and convenience. Its position protects it equally from street and athletic field.

HOWE AND LESCAZE



PHILADELPHIA SAVINGS FUND
SOCIETY BANK AND OFFICE
BUILDING
PHILADELPHIA, PENNSYLVANIA

WILLIAM LESCAZE

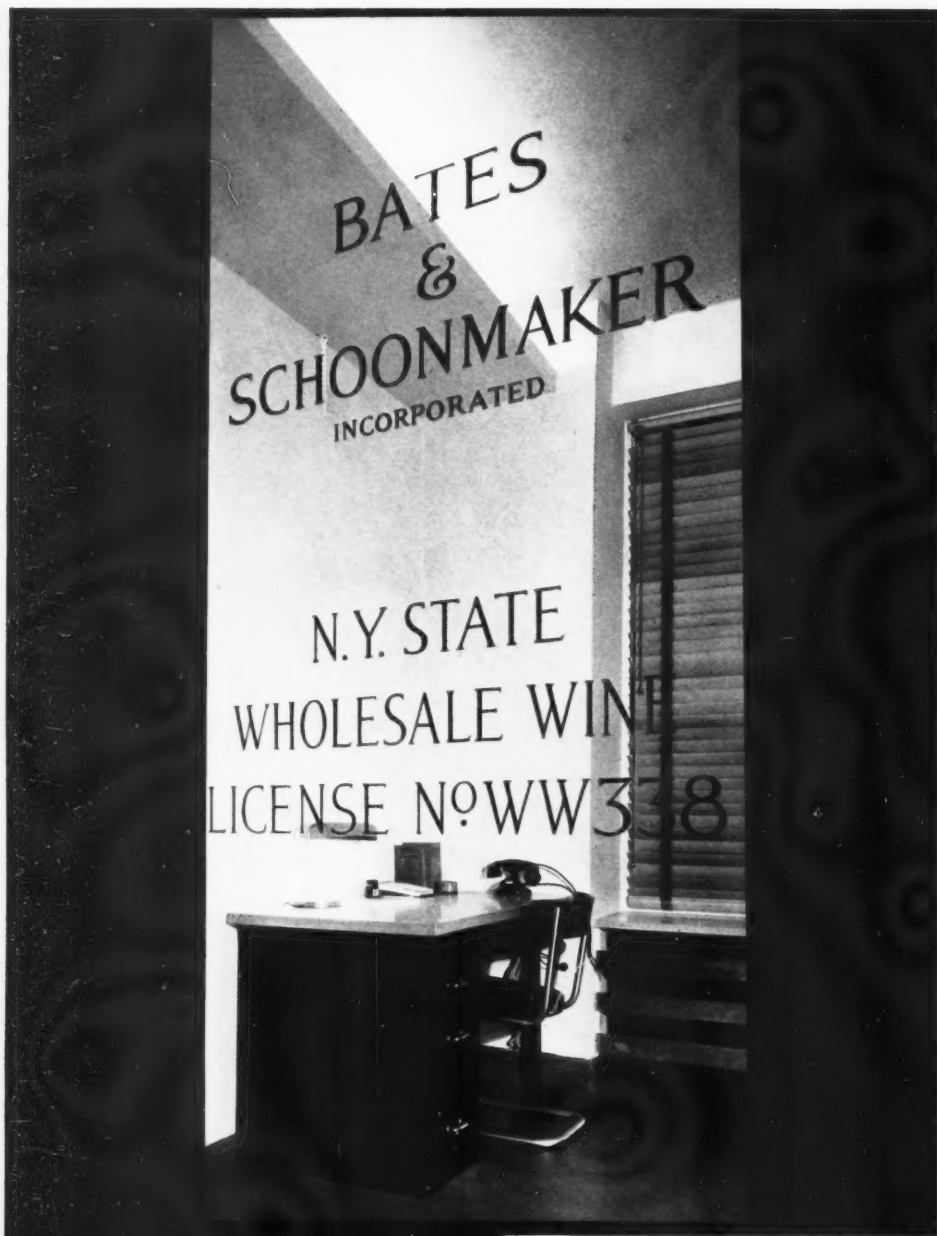


CHICAGO OFFICE OF THE COLUMBIA BROADCASTING SYSTEM, INC. Elevator lobby, executive offices at one end. Reception room and studios at opposite end.

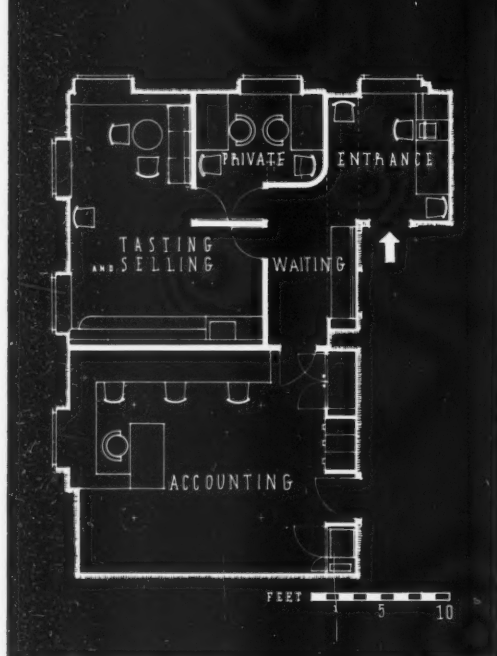
**COLUMBIA BROADCASTING SYSTEM,
INC., CHICAGO, ILLINOIS**



RADIO THEATRE FOR THE COLUMBIA BROADCASTING SYSTEM, INC., STATION WBBM. Two clients' rooms are at rear; the control room in front, right, overlooking stage.



All photographs by Esther Born



PLAN OF OFFICES,
BATES AND SCHOONMAKER

OFFICES AND
FOR BATES &
WINE MERCHANTS,

BATES AND SCHOONMAKER are liquor merchants who placed in the care of their architect the design of sales rooms for wines and liquors. They declared at the outset their wish to depart from the customary practice of redecorating old quarters. The space treatment and areas were to be proportioned to requirements. The thread-bare formula of rows of shelves and a counter were to be dispensed with and some new approved way of displaying and selling bottled goods adopted. This was the problem given to the architect for solution.

In achieving a solution all non-essentials were eliminated, a colour-scheme of stark simplicity was recommended. Since bottled goods should ALWAYS be stored in a horizontal position "so that the wine touches the cork," special wall racks were adopted, but no wines are in open display in the selling room. The wines under immediate discussion are removed from storage bins behind sliding doors of aluminium.

These are placed on inspection shelves. A refrigerator of small size was located near the inspection counter and is capable of rapidly chilling wines to any desired temperature. A glass cabinet was placed between the sliding door and the adjoining sink.

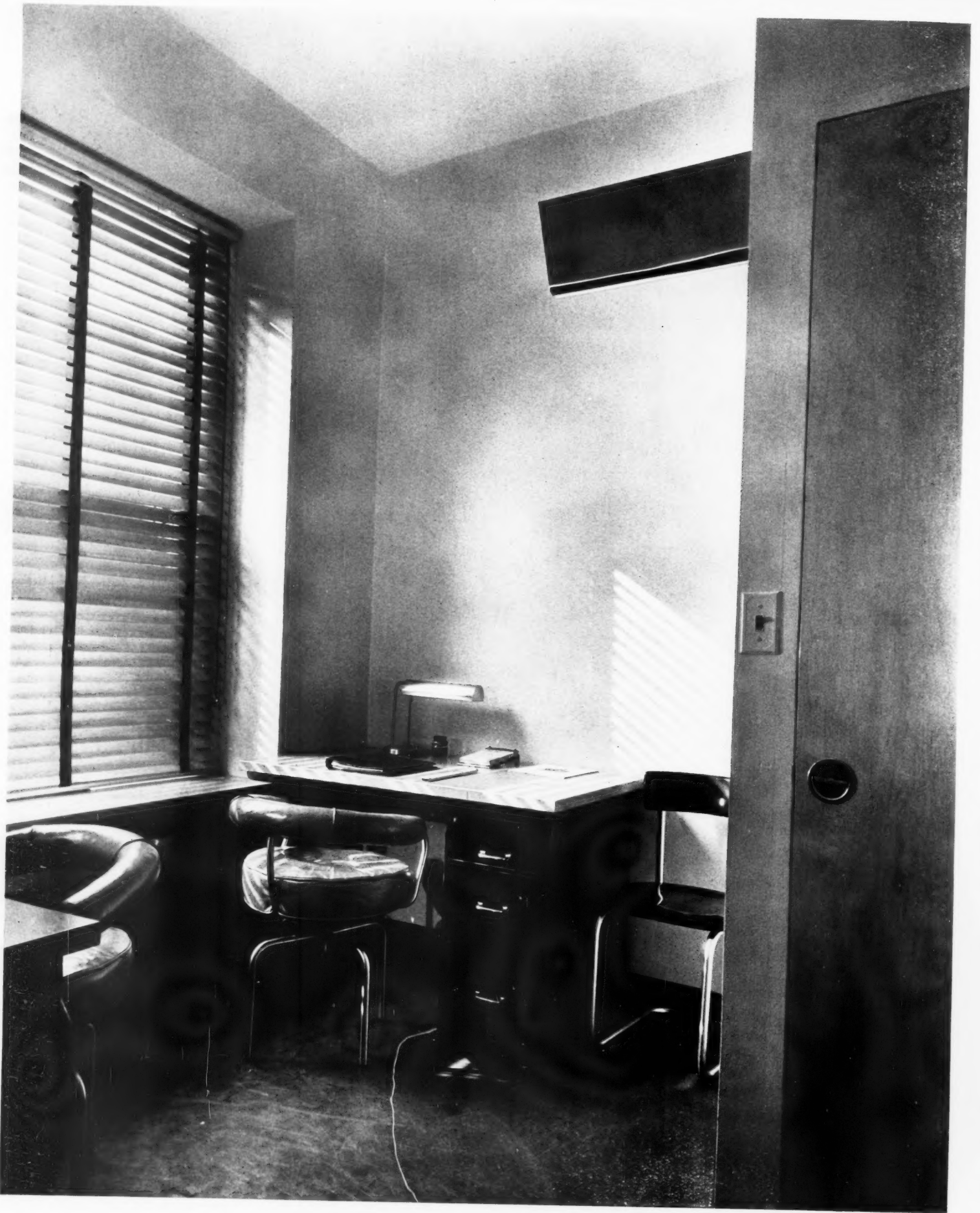
**TASTING ROOM
SCHOONMAKER,
NEW YORK CITY**



THE TASTING CORNER. A library of trade periodicals on wine industry and culture is placed in an alcove furnished with a leather seat.



ERNEST BORN



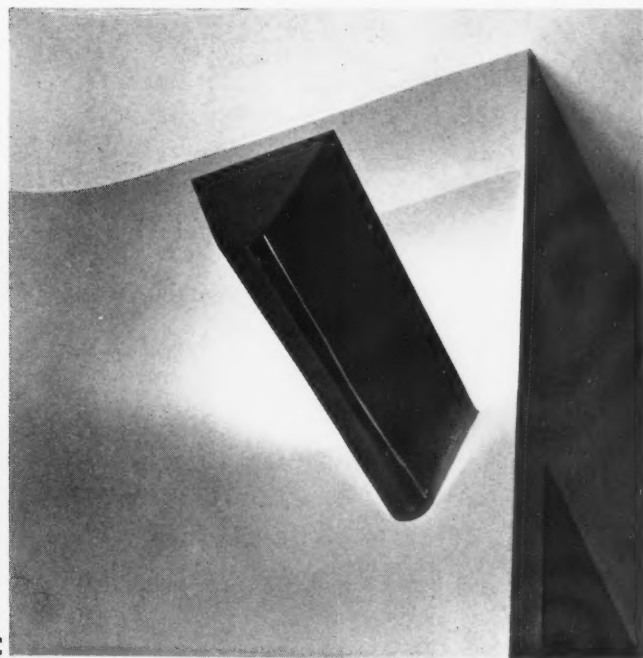
A

C

**OFFICES AND TASTING ROOM
FOR BATES & SCHOONMAKER,
NEW YORK CITY**



A. private office. B. counter, Monel sink and cases in testing room. Viticultural map over counter locates the wine centres of the world. C. lighting fixture. D. flush hardware.



HOW AMERICA BUILDS, 1936-37

By RICHARD J. NEUTRA, Architect

TECHNOLOGICAL INTRODUCTIONS THAT INFLUENCE THE TREND OF BUILDING DESIGN

The extensive American mass market of building materials, supplies, finishes, installations, has hardly a counterpart on the European Continent, which is severely cut up and divided by a multitude of duty-boundary-lines. It permits an easier expansion of "design particles," so to speak, and that broad exploitation of structural schemes which effectively supports industrialization of building operations. However, as this industrialization, privately managed for lop-sided gains, is quite departmental in character, a true integration of the manifold living forces is as rare as the integration of building design in concrete cases.

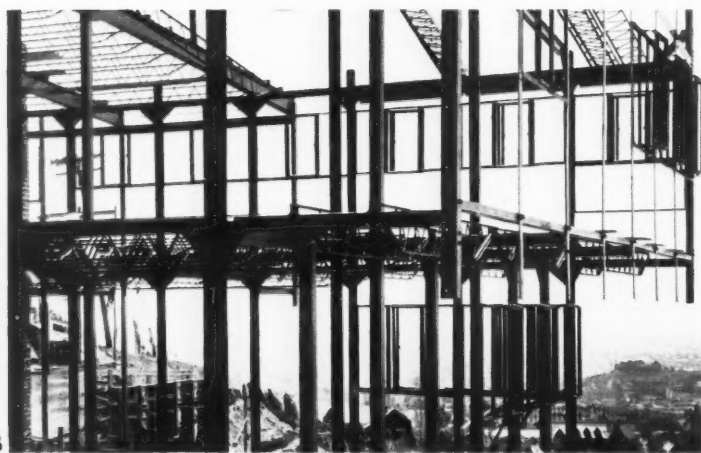
How to bring about such a useful co-ordination is a problem, perhaps more puzzling in U.S.A. than in other countries with a lesser multitude of technical offerings.

While engineering inventiveness is applied successfully to the design and economical production of elements, the standards developed rarely interlock with each other. Standardized elementary dimensions of wall-forming or covering slabs and panels, stock sizes of steel sash, stock widths of insulation boards, sheet glass, glass bricks, flooring materials, etc., are strangely lacking in inter-relation. Attempts to the contrary, like those of the Bemis Industries, Incorporated, to develop a common dimensional denominator, remain largely theoretical. Prefabrication of houses has long been predicted and rehearsed; now actually gaining weight as a popular issue, it will act as a catalyzer even outside of its own realm. It revealingly demonstrates for the entire field of building the new and exacting interdependence of half-finished industrial products which have superseded the "raw material" of ancient building designers.

But in a majority of cases manufacturers still seem to fit their brand new products not to each other, but to an obsolete species of wood frame or masonry shell. The very same lack of inter-adjustment hampers intimate accommodation, the



A

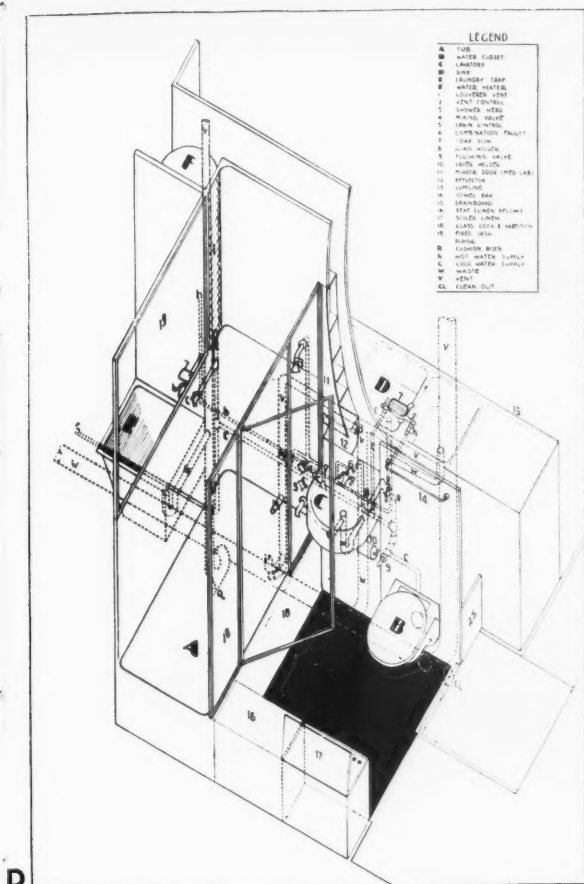


B



C

A, SUPER-PLYWOOD MODEL HOUSE, LOS ANGELES. Weather-proof, non-shrinking, non-warping Super-Plywood with aluminium kalomeined joint-cover moulds is a material lending itself to building prefabrication. B, continuous steel sash as integral part of steel skeleton. Use of steel in tension in projected portions, which are suspended from roof. C, BATHROOM IN STEEL HOUSE FOR JOSEF VON STERNBERG, SAN FERNANDO VALLEY, CALIFORNIA.



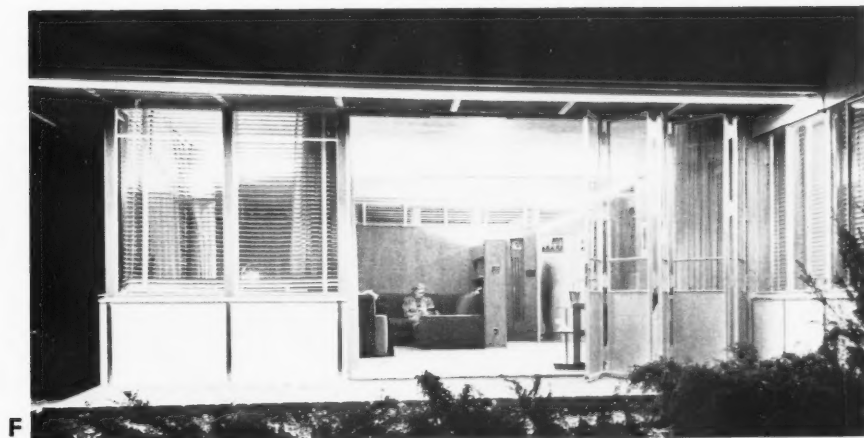
integration of heating, plumbing, mechanical, electrical installations. This, to be sure, is easily justified by commercial considerations. Even such a progressive development as the one- or two-piece copper bathroom designed by Buckminster Fuller for the Phelps Dodge Corporation must cater to a degree to the "alteration market." It must attempt to take into account applicability to obsolescent structural frames still customary in the locality of the presumed sales-transaction.

Similar COMMERCIAL RELATIONSHIPS OF THE PROGRESSIVELY NEW TO THE DISAPPEARING OLD, I have found, are effective in all industrially civilized regions from Japan to

Czechoslovakia. This natural phenomenon, specifically variegated in each of these regions, constitutes a severe impediment in considering the rational mode of design as quickly resulting in a so-called "International Style."

The spirit and spread is perhaps no more international than in the Baroque or in the Classicism which operated from Petersburg to Buenos Aires and from Copenhagen to colonial Hongkong. But the formal stylistic practice and ambition of those periods were essentially less dependent on the technical sub-stratum and on material-availability than our present approach, which programmatically subjects itself to an economical, and therefore technically logical, application of industrially produced elements pertaining to construction, installation and finishing. The world distribution of this "New Raw Material" is at the moment more than ever controlled by patent rights, monopolies and inimical, tariff-politics. FOR THE TIME BEING, AT LEAST, STYLISTIC SUPERFICIALITIES HAVE A MORE MARKED COSMOPOLITAN RANGE THAN HARMONIOUSLY CO-ORDINATED MANUFACTURE WHICH TYPICALLY UNDERLIES THE NEW BUILDING DESIGN AND COULD FURNISH IT WITH TRULY CONVINCING POWER.

Painstaking CO-OPERATIVE RESEARCH AND EFFICIENT EVALUATION OF MOST RECENT, TECHNICALLY REFINED PRECEDENT. I am inclined to mention the first of these possibilities decidedly in the first place, although the second one offers a vastly larger employment market to the graduate of a training school, and, if properly understood, may by no means be contemptible routine nor devoid of creative ingredients.



D, STEEL CRAFT HOUSE. Prefabricated bathroom, showing combined plumbing for bathroom, kitchen and porch. E, PLYWOOD MODEL HOUSE, LOS ANGELES, CALIFORNIA. Garden view. F, SUPER-PLYWOOD MODEL HOUSE, LOS ANGELES. Night view seen from patio, with collapsible glass partition opened. G, RALPH WALDO EMERSON JUNIOR HIGH SCHOOL, LOS ANGELES. One of the first earthquake-proof steel skeletons used in the Los Angeles school district. The effort to clearly establish internal stresses caused by the lateral forces of earth shocks and wind attacks favours the use of fabricated steel skeletons even for one- and two-storey school buildings in California.

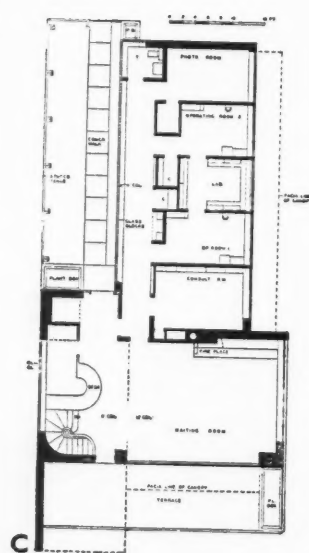


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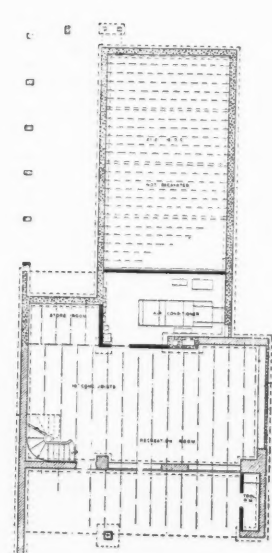
B

BUILDING FOR DR. LEO SHANLEY
CLAYTON, MISSOURI



C

FIRST FLOOR



BASEMENT



D

This building is for an orthodontist. The greater number of patients are children between seven and eighteen years of age. The plot slopes outwardly about ten feet giving an opportunity for two large rooms, the waiting room and the playroom, directly below it. The latter is located at the sunny end of the building, leaving the long east side for work-rooms which open off from the corridor. The corridor is lighted by a narrow row of glass blocks shown at the entrance. This scheme produces an entrance courtyard and removes the door from the noise and dust of the street. In bad weather cars can be driven under the south terrace where patients may enter the building at that level.

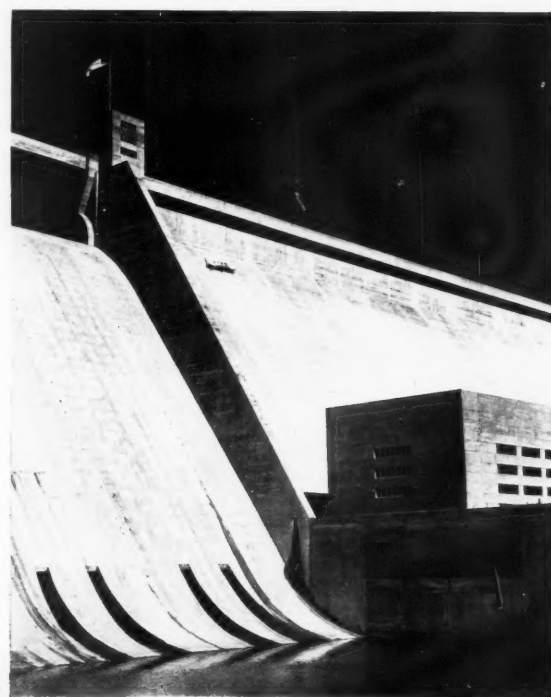
A, GENERAL VIEW OF BUILDING AT LOWER LEVEL. B, ENTRANCE FROM COURTYARD. C, PLANS. D, RECEPTION ROOM. E, APPOINTMENT DESK.



E



A



B

FEDERAL POWER PROJECTS

A, This 270-ton gantry crane is used for handling rotating parts of turbines and generators at Wheeler Dam (a Federal power project in the Tennessee Valley). The crane spans the power house section of the dam. B, NORRIS DAM, Tennessee Valley Authority storage project on Clinch River about 25 miles north-west of Knoxville, Tennessee. Spillway section shown in left foreground; power house in right foreground behind cut-off wall.

INDUSTRY

To speak of American industrial architecture is to evoke pictures of great constructions made of steel and glass, limpid as crystal and of a purity of form which astonishes us. It is a living rhythm in which the saw-tooth roofs, the monitors and the great bays opening out to infinity play a rôle so natural and so justified that one is moved in the face of so much directness.

Their builders pursue their goal. They are believers. The past means nothing, and what remains in their hands is pure reality : process, output, construction, objectivism, materials. Thus, certain forms have come to light—surprising forms, without similarity, without precedent.

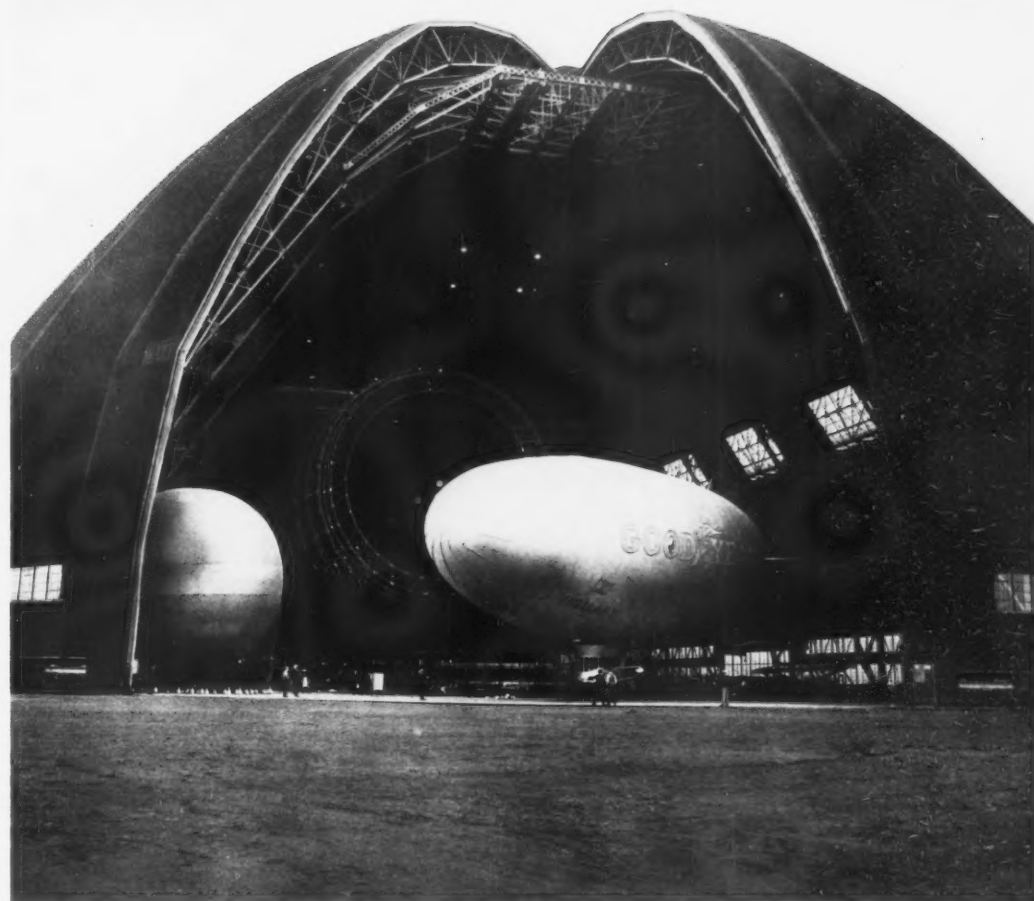
Turned away from a defeated architecture which wanders like a shadow from the distant past in the cities and within our homes, we find faith again in the exactitude of construction and in our rights as creators. For the truth remains that men can live however they wish, our civil dignity can be of any kind, but a product is made only in appropriate conditions.

The contrast which exists between utilitarian constructions and civil and domestic buildings is disconcerting. We must attribute this chasm to the lack of definite data which ends in conceptions of perishing monumentality, or in acute regrets for things of the past, but especially in an indifference for "static" things or things representing abstract ideas which, nevertheless, were to signify as many realities. Definite data, directives, our exigencies as men, are confused with sentimentalities and with the customs of passage.

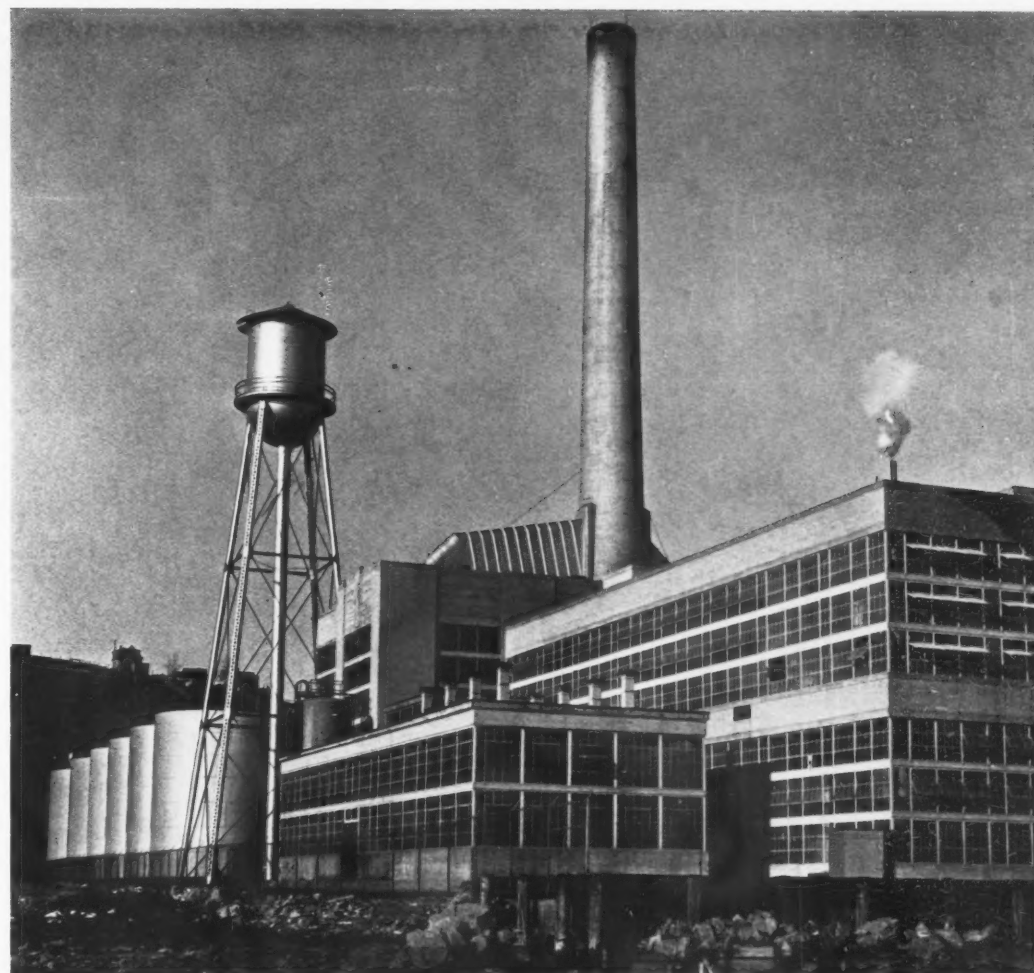
(1) Mechanical production, instead of directing and taking the same initiative which it has had in other domains, has offered little assistance to civil and domestic architecture except perhaps in furnishing reproductions of articles of handcraft. On the contrary, it has enveloped the factory with all its attention : it has endowed it with the most efficacious elements, with the most appropriate materials : it has courageously undergone the expense of technical research and experimentation.

(2) Thus, it is in the metal tanks, in silos of reinforced concrete, in power stations, that we must find, through utilitarian lyricism, a pure honesty of intention. And it is in Pittsburgh, Minneapolis and in Detroit that we must look for Capitols.

STAMO PAPADAKI



C



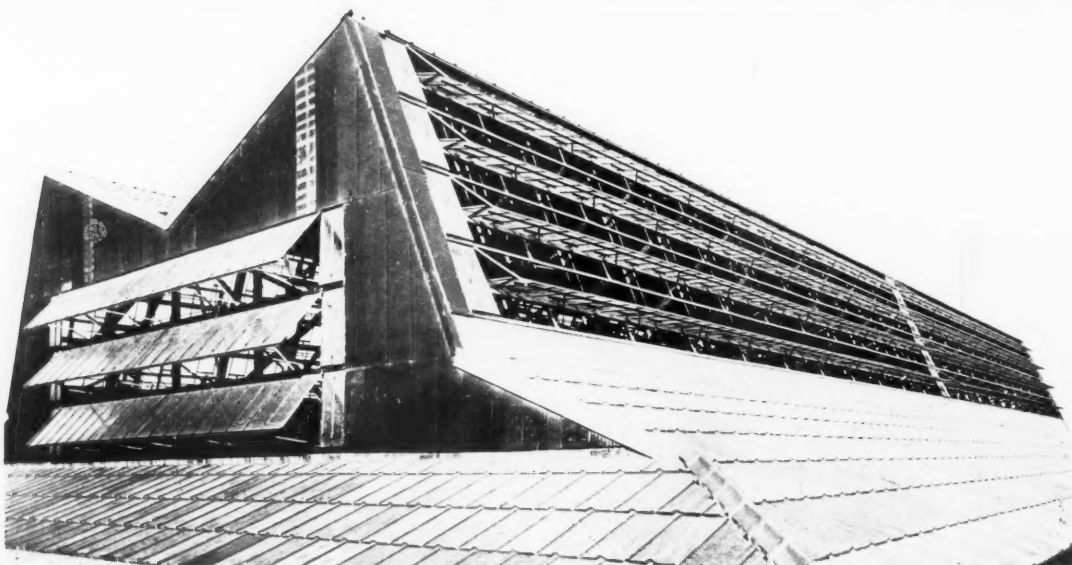
D

C, GOODYEAR FABRICATION HANGAR, AKRON, OHIO. D, LEVER BROTHERS FACTORY, EDGEWATER, NEW JERSEY. STONE AND WEBSTER ENGINEERING CORPORATION, ENGINEERS.

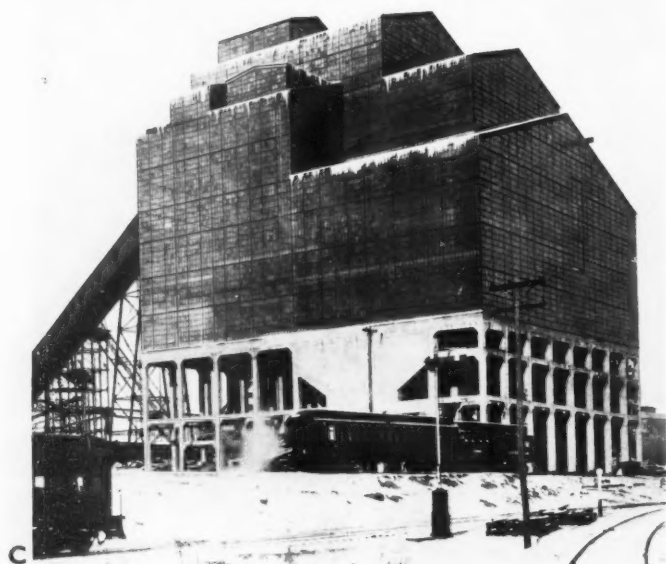
INDUSTRY



A



B



C

A, FORD MOTOR COMPANY PLANT, RIVER ROUGE, MICHIGAN. ALBERT KAHN, INC., ARCHITECTS. Top-hung continuous steel windows. B, EDISON LAMP WORKS OF GENERAL ELECTRIC COMPANY, HARRISON, NEW JERSEY. R. H. CANFIELD, ARCHITECT AND ENGINEER. Equipped with steel horizontally pivoted windows. C, LOOMIS BREAKER, NANTICOKE, PENNSYLVANIA. BRADFORD SAMPROW, ARCHITECT AND ENGINEER. D, BLOWERS, PILLSBURY FLOUR MILLS, MINNEAPOLIS, MINNESOTA.

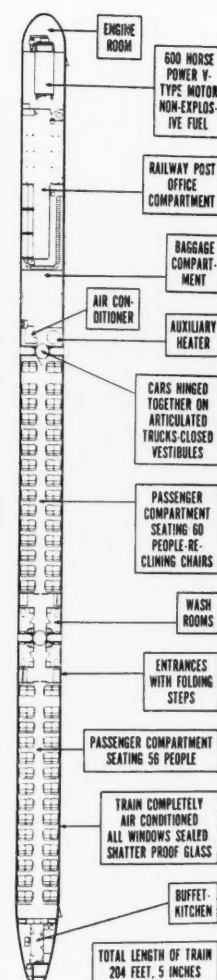
Photograph by William Rittase





A

Photo: Lincoln



A. TRANSPORT PLANE LANDING GEAR. B. PORTABLE "MOVIE" THEATRE with complete talking and projecting apparatus. C. UNION PACIFIC TRANS-CONTINENTAL PASSENGER TRAIN, built of aluminium alloy; complete weight, with three cars including engine, is only as much as a single sleeping car. This super-speed train is capable of a maximum speed of 110 miles an hour.



B



C

RT

INDUSTRIAL DESIGN

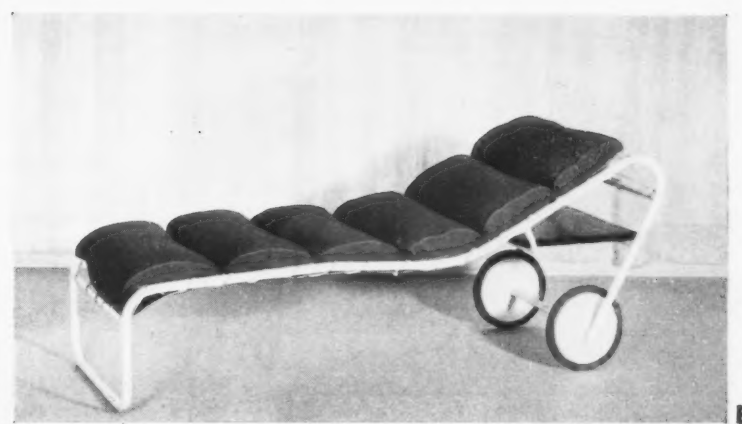
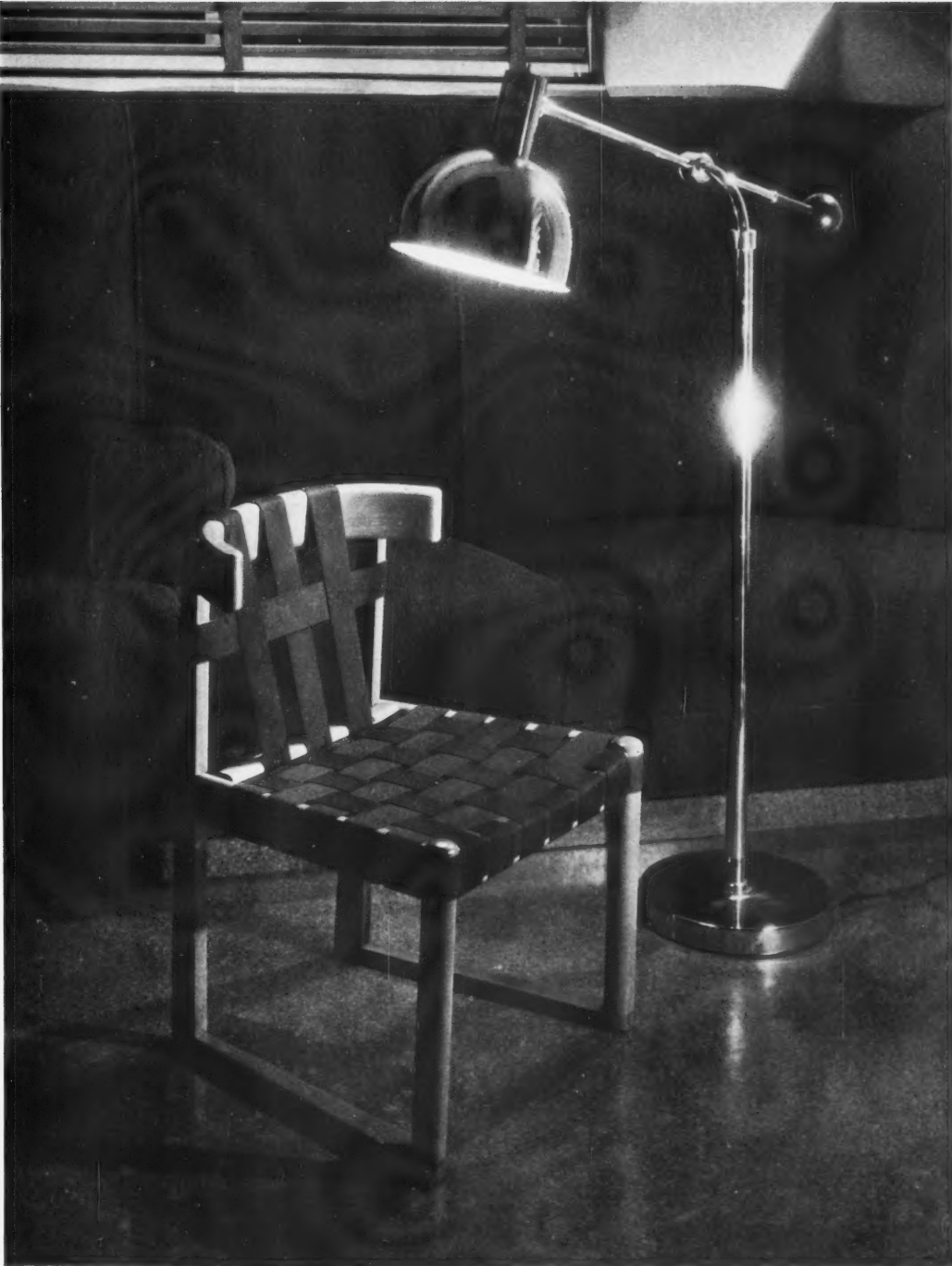


Photo: Lincoln



A, READING LAMP by Frederick J. Kiesler, architect.
B, MOVABLE RECLINING COUCH with book shelf, originally designed for hospital patients. By Metallon Corporation, New York City. C, CHAIR AND READING LAMP by Harris Armstrong, architect. D, CEILING LIGHTING REFLECTOR by Frederick J. Kiesler.



Photo: Lincoln

Photo: Piaget



STAGE SCENERY

By *FREDERICK J. KIESLER*,
ARCHITECT

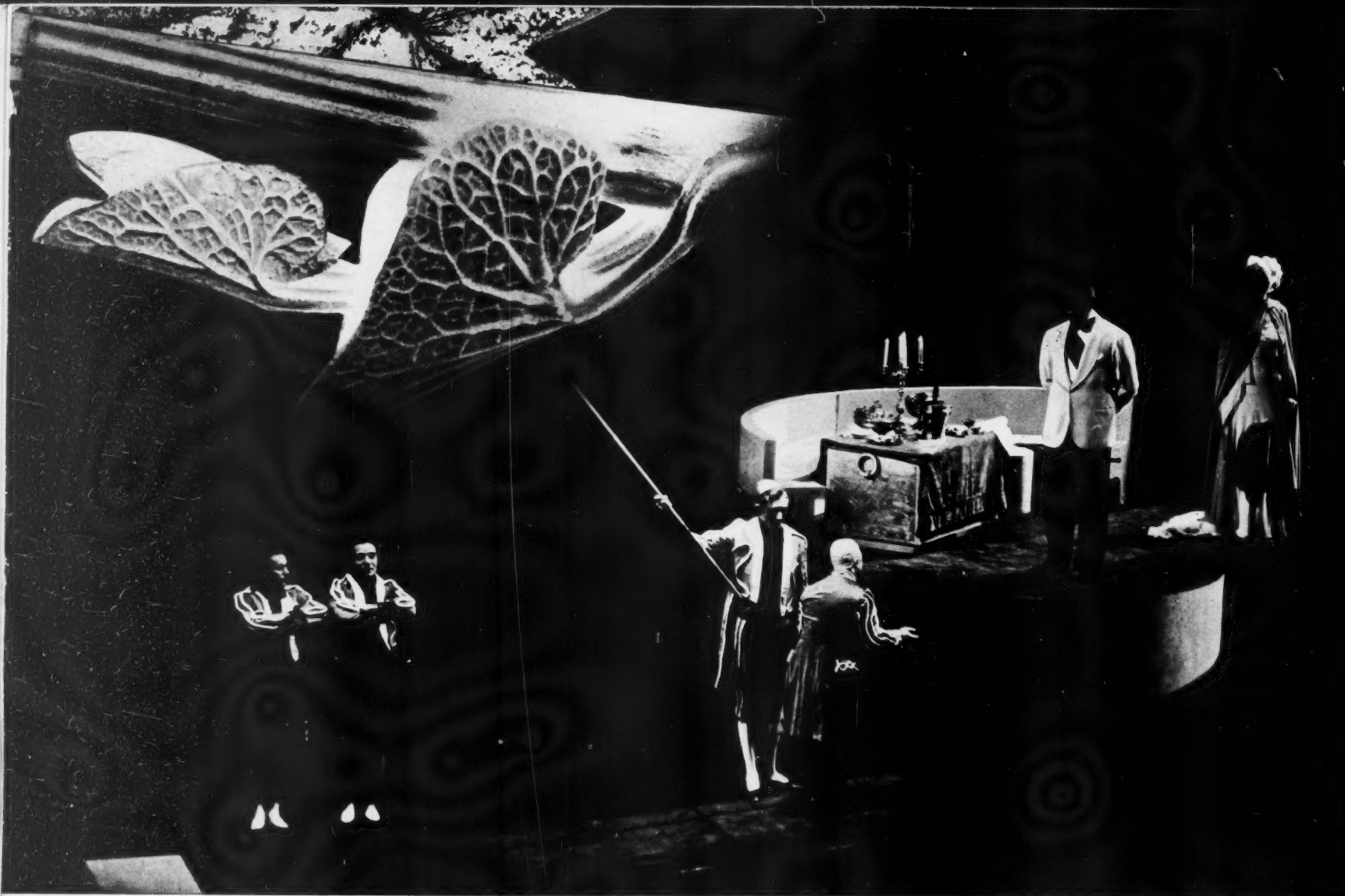
A, GREEK CHORUS SEATED IN AUDITORIUM, from the opera, "Helen Retires," by John Erskine, music by George Antheil. Huilliard School of Music, New York City. B, TWO CHORUS MEMBERS OF THE GHOST-CHORUS, with masks specially designed for singing, covering the back of the head, and converging toward the centre of the face but not closing entirely, so as to permit easy respiration. C, FIRST ACT OF "HELEN RETIRES" (two vertical and one horizontal screen). Slit in centre screen into which Helen steps to board a movie-projected submarine to descend into the underworld. D, GHOSTS OF GREEK HEROES in the underworld and Helen searching for Achilles.



C



D



E

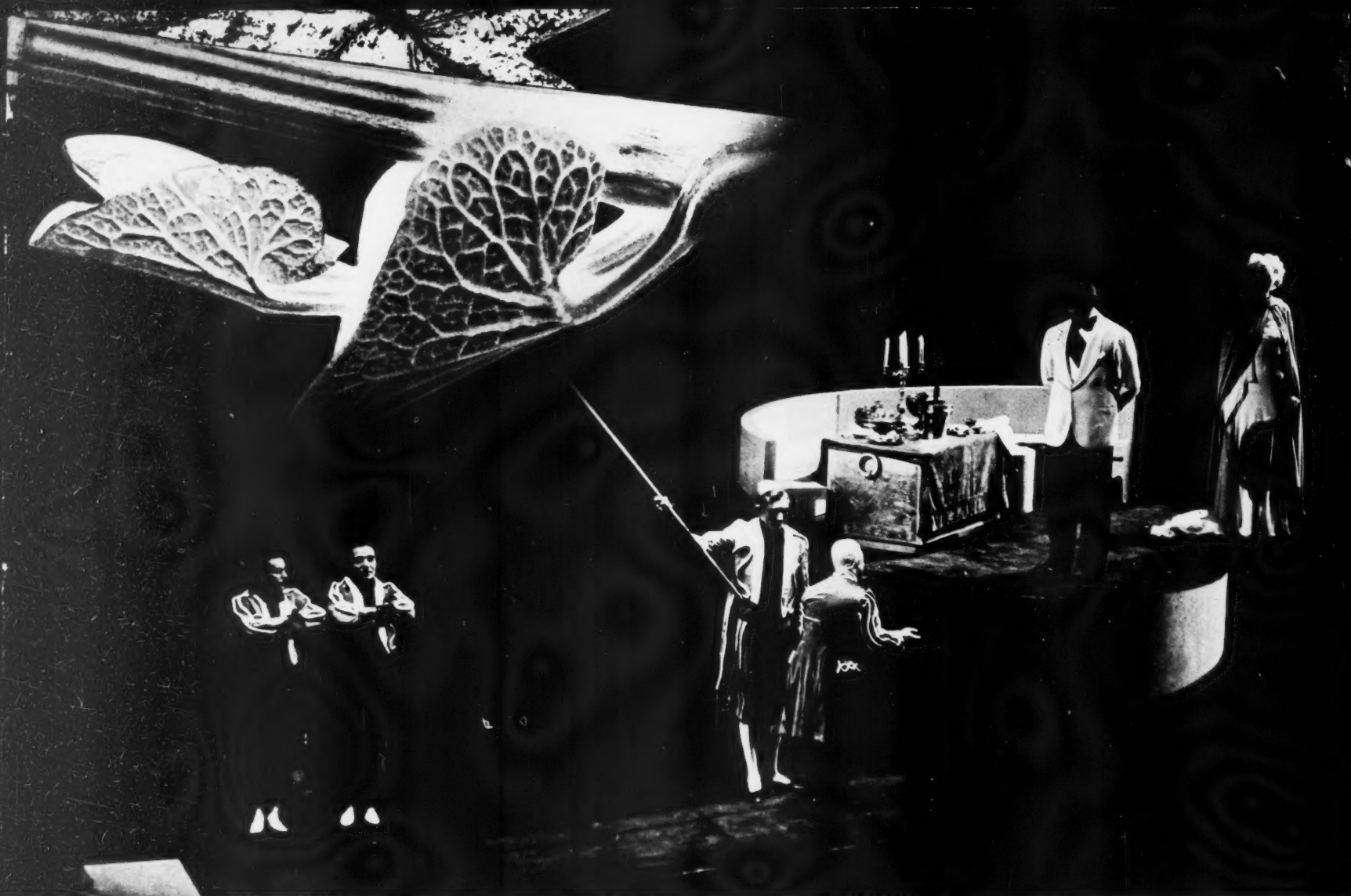
STAGE SCENERY

BY FREDERICK J. KIESLER,
ARCHITECT

E, SETTING FOR METROPOLITAN OPERA New York, "In a Pasha's Garden," with continuous interplay of projections, micro-photographs of stellar, plant and submarine life. Designed by Frederick J. Kiesler. F, THIRD ACT OF "HELEN RETIRES," the Elysian Island. Designed by Frederick J. Kiesler.



F



E

STAGE SCENERY

BY FREDERICK J. KIESLER,
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E, SETTING FOR METROPOLITAN OPERA New York, "In a Pasha's Garden," with continuous interplay of projections, micro-photographs of stellar, plant and submarine life. Designed by Frederick J. Kiesler. F, THIRD ACT OF "HELEN RETIRES," the Elysian Island. Designed by Frederick J. Kiesler.



F

The Aesthetic Twenties

They had descended, without paying much attention where they were going, the steep yew-walk that went down, under the flank of the terrace, to the pool. The house towered above them, immensely tall, with the whole height of the built-up terrace added to its own seventy feet of brick façade. The perpendicular lines of the three towers soared up, uninterrupted, enhancing the impression of height until it became overwhelming. They paused at the edge of the pool to look back.

"The man who built this house knew his business," said Denis. "He was an architect."

"Was he?" said Henry Wimbush reflectively. "I doubt it. The builder of this house was Sir Ferdinando Lapith, who flourished during the reign of Elizabeth. He inherited the estate from his father, to whom it had been granted at the time of the dissolution of the monasteries; for Crome was originally a cloister of monks and this swimming-pool their fish-pond. Sir Ferdinando was not content merely to adapt the old monastic buildings to his own purposes; but using them as a stone quarry for his barns and byres and outhouses, he built for himself a grand new house of brick—the house you see now."

He waved his hand in the direction of the house and was silent. Severe, imposing, almost menacing, Crome loomed down on them.

"The great thing about Crome," said Mr. Scogan, seizing the opportunity to speak, "is the fact that it's so unmistakably and aggressively a work of art. It makes no compromise with nature, but affronts it and rebels against it. It has no likeness to Shelley's tower, in the 'Epipsychidion,' which, if I remember rightly—

"Seems not now a work of human art,
But as it were titanic, in the heart
Of earth having assumed its form and grown
Out of the mountain, from the living stone,
Lifting itself in caverns light and high."

No, no; there isn't any nonsense of that sort about Crome. That the hovels of the peasantry should look as though they had grown out of the earth, to which their inmates are attached, is right, no doubt, and suitable. But the house of an intelligent, civilized, and sophisticated man should never seem to have sprouted from the clods. It should rather be an expression of his grand unnatural remoteness from the cloddish life. Since the days of William Morris that's a fact which we in England have been unable to comprehend. Civilized and sophisticated men have solemnly played at being peasants. Hence quaintness, arts and crafts, cottage architecture, and all the rest of it. In the suburbs of our cities you may see, reduplicated in endless rows, studiously quaint imitations and adaptations of the village hovel. Poverty, ignorance, and a limited range of materials produced the hovel, which possesses undoubtedly, in suitable surroundings, its own 'as it were titanic' charm. We now employ our wealth, our technical knowledge, our rich variety of materials for the purpose of building millions of imitation hovels in totally unsuitable surroundings. Could imbecility go further?"

ALDOUS HUXLEY, 1921

[Crome Yellow : Chaito and Windus]

DID YOU KNOW?

The poverty, disease and filth, the business inefficiency and the administrative chaos which lie behind the sham façade of London's West End "prosperity"; these are facts vaguely accepted by the Londoner. *Metropolitan Man*, by Robert Sinclair, isolates these unpalatable facts (giving over 600 references to official sources) and suggests some of their organizational implications. The book is published by George Allen and Unwin, price 10s. 6d. Here are a few typical selections from the text:

"The world seems full of green trees and beautiful women, and there will be salad for lunch. Can it be true that one in three of the Londoners around me dies in the workhouse?"

"Some 160,000 people in inner London, as we know, are helped to live by Poor Law charity."

"The Medical Research Council has proffered evidence that in London 50 per cent. of children and 97 per cent. of adults are infected with tuberculosis."

"Fill the Albert Hall with a random collection of Londoners, and, if they were really representative, they would include 100 persons with damaged minds."

"Unless something happens to deflect the suicide line which has been rising for years on the graph of London, 57,000 people who are alive at this moment in the inner county are predestined to suicide, or 90,000 in Greater London (the rate is lower in the outer suburbs)."

"One-quarter to one-third of the children admitted



A new garden restaurant belonging to the King's Head Hotel, Harrow, has mural decorations, painted direct on the walls, by M. Hoffer and M. Angerer. Each panel represents a drinking scene in the national costume of a different country.

to school at five are in need of medical attention before they can receive the education which the State provides for them." (Sir George Newman.)

"More than half the pupils leaving the secondary schools do not pass the appropriate leaving examination."

"Scholarships per 1,000 children. Finsbury, 1.2. Lewisham, 8.1. Percentage of population living more than two to a room. Finsbury, 29.4. Lewisham, 4.1."

"The arts, the sciences, the professions, business and public interests alike are being enriched by this steady streaming of clever children into our national life. . . . It is probable that one day the genius of one of these will confer some priceless boon upon humanity, and that the cost of the scholarship scheme will pale into insignificance before his achievements." (L.C.C. booklet.)

"The mud-flats dozen the Thames estuary have

happily not been modernized: they offer a needed refuge to the unemployed shipping of a maritime nation seven-eighths of whose shipyard output vanished in two years."

"You made enough fuss about Captain Fryatt and Nurse Cavell, about Oscar Slater and Miss Sawidge and the boy on the burning deck. Have you heard about the boy in the milked bed?"

"For one new block of flats in Bethnal Green 225 families applied: their 1,214 members were living in 361 rooms, an average of 3.3 per room, irrespective of age or sex."

"The London housing survey completed in 1936 shows that the clot of slums is much as it was in 1931."

"One hundred and nine bodies of the town-council kind dispute the rulership of London, abetted by two hundred and forty-six other bodies with statutory powers of public regulation. There are more than fifty mayors with fur and feathers."

"... the protection of London against floods requires the co-operation of: The Air Ministry. The Metropolitan Police. The London County Council. All the London riverside boroughs. The Southend-on-Sea Piermaster. The Port of London Authority. The Thames Conservancy Board. The Southend-on-Sea Borough Police. The Treasury. The British Broadcasting Corporation."

"Kensington sends its garbage to Hammersmith—and the garbage of Hammersmith is sent to Fulham."

"Bedford may rise up in arms over the closing of a right of way: Crompton and the Isle of Skye will set their face against Sunday games. But London has not acted as one man since the days of Wat Tyler—and he was stabbed by the chairman of the local authorities."

"The West Strand, one of the three main western approaches to the City, has 53 conduits laid underneath its surface. If anything goes wrong with any one of these 53 services, up comes the road."

"The principle of segregating fast and slow traffic, which enables an express train to pass a goods siding thanks to the foresight of an engineer who laid two tracks where he might only have laid one, has never been applied to London street traffic."

"Today the whole county of London has been 'declared' to be town-planned: but the effect is to petrify the confusion and not to abolish it. This is negative legislation of the 'no-you-mustn't' type. No-you-mustn't build a hen-coop in your back garden, says the local authority. And if the local authority wants to build a broad boulevard ten thousand hen-coop-owners can turn round and say No-you-mustn't also."

"One organization alone is permitted to embrace the

whole of London in its purview, but that organization (you are expecting what follows?) has no authority. It is the Greater London Regional Planning Committee, which can 'advise,' 'report,' 'consider,' 'suggest,' and 'recommend,' but which can do nothing."

Review on Roads

Next month the Minister of Transport's Trunk Roads Bill comes into operation. This Bill takes the responsibility of improving and administering 4,500 miles of the main road system of Great Britain out of the hands of 84 different local authorities and puts it in the hands of a central administration. For the first time one of our two most important systems of communication will be treated seriously as a national responsibility. Local control, so

far as trunk roads are concerned, with its attendant waste and confusion, will come to an end—at a belated interval after the roads themselves have ceased to be local phenomena only.

This measure will offer vast opportunities for improving the design of great motor roads, making them fit for the national purpose they have to serve; and, indeed, the Minister of Transport has already promised that a thorough survey of the existing trunk road system will be made with a view to providing all the modern improvements that are considered necessary on a main motor road: cycle tracks, fly-over crossings and pedestrian bridges. The inadequacy of our present roads is admitted; some statement of the needs of the modern road, from the design point of view, may help those to whom this new planning opportunity is given not to repeat the mistakes of the past—especially if illustrations are also given of cautionary examples and noteworthy

precedents. A special section on the design of roads in the April issue of THE ARCHITECTURAL REVIEW will attempt to do this. It will emphasize also the visual architectural aspects of the subject, in planning, design, colour and relation to landscape, in order to point out some of the vital factors that must not be overlooked. So much more is involved than the elimination of accidents.

CULTURE NOTE

"William Morris, who once said that he always went up the Eiffel Tower when he found himself in the French capital because that was the only place in Paris from which he could not see what he regarded as an elaborate eyesore."

MANCHESTER GUARDIAN

Probably M. Eiffel felt just that way about Kelmscott.

THE SLUMS OF TOMORROW

"Now, looking into the future, it must be obvious that North London will in ten years' time be just one huge block of flats."

"And whereas other parts of London are rapidly gaining through the exodus south of the most civic-minded, most wealthy, most conscientious citizens, this particular district will decrease in rateable value and prestige."

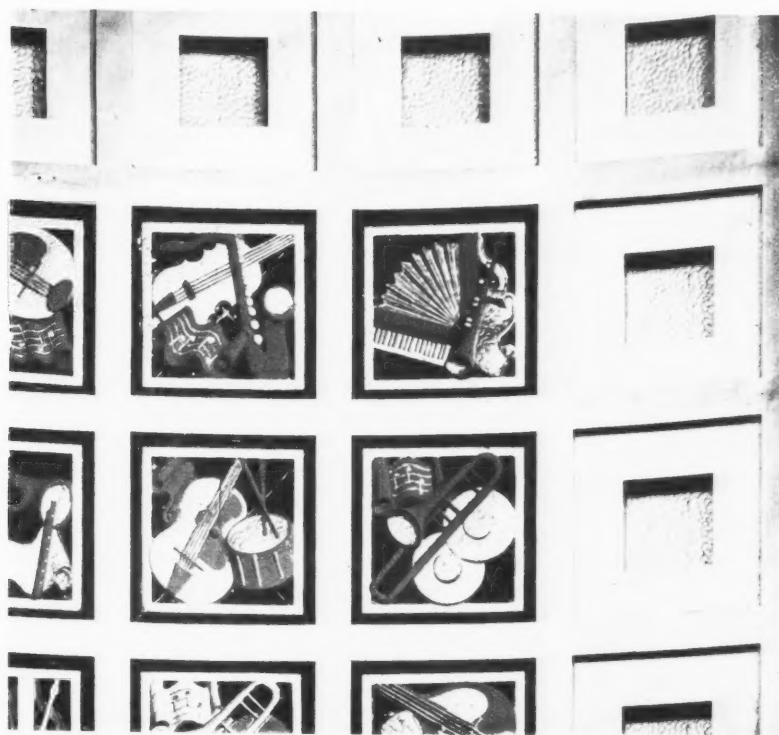
"Why the slums themselves should not be pulled down first and the building of flats follow in natural course is hard to understand."

"The L.C.C. are the appointed cleaners of North London's Augean stable, but it seems as if they are thinking only of the present, are laying foundations for slums of the future."

NORTH LONDON RECORDER

That's what North London may think, but it seems probable that posterity will have to cope with a slum-problem elsewhere. It is far more likely that the slums of the future will be situated along the by-passes, beautiful old-world Tudor slums, rather than in a district of well-planned flats. Perhaps the North London Recorder is unaware of the interesting remarks of a slum-dweller broadcast on the Northern Ireland programme recently. One of the more apposite passages is quoted below:

"I know that there are a lot of people who say that to take slum dwellers out of slums and put them in newly-developed districts is to make new slums. This is untrue and unfair. If the new districts become slums it is not the fault of the people, but of the houses. Speaking from experience of my own district, I can say that the people are on the whole very clean, respectable and hard-working. They are bringing their children up as decently and



Sculptured panels by Frank Dobson form the organ grille of the Granada, a new luxury cinema just built in Wandsworth. There are thirty-six panels, eighteen on either side of the proscenium opening. Each panel is symbolic of a phase of organ music. The colouring is carried out in red and silver against a black background. These grilles represent the first work done by Frank Dobson for a cinema.

MODERN TREASURY — VII.



"Semi-indirect lighting fittings are employed in this Norman style apartment."

MASTER BUILDER

well as their circumstances permit, but they are working against terrible odds.

"I realise there are many difficulties in the way of town planning. Not least is the fact that people in the worst districts see their friends paying three times their old rent to live in a house which is very little better than their own. The old house is usually built more soundly and with better material than the new one. Can you blame these families if they would rather stay as they are? It will take proper town planning—which, of course, includes adequate housing—to change their views."

Slums are made not by the inhabitants, but by bad planning, bad building and bad architecture.

The Dinner to Professor Gropius

The following letter, which appeared in *The Times* of Monday, February 15, formulated the proposal to hold a dinner in Professor Gropius's honour.

"Sir,—The appointment of Professor Walter Gropius to the

Graduate Chair of Architecture in Harvard University has already been announced in your columns. Professor Gropius has been a resident in this country for the last three years and it was the confident hope of many people that we were to have the benefit of his outstanding talents for many years to come. In this we have been disappointed. But in his brief stay among us Professor Gropius has already strengthened his great reputation on a basis of friendship and personal inspiration, and before he leaves us for the important post to which he has been called it has seemed fitting to us that some public recognition should be given of our appreciation of his services to modern architecture.

For this purpose it is proposed to give a dinner in his honour on Tuesday, March 9, and those interested in the proposal and desirous of being present are invited to communicate with the secretary of the organizing committee, Mr. E. J. Carter, 66, Portland Place, W.1. As the accommodation will be strictly limited it is advisable that immediate application should be made.

Yours faithfully,

PATRICK ABERCROMBIE,
W. G. CONSTABLE,
CHARLES HOLDEN,
IAN MACALISTER,
HERBERT READ."

The dinner is taking place, as then proposed, on the ninth of this month. It will be at the Trocadero Restaurant and Prof. Julian Huxley will be in the chair. Places are limited,

but application for any tickets (price 25s., including wines) that still remain should be sent at once to Mr. Carter.

OXFORD ON OXFORD

"The principal entry to Oxford from the east is by the Plain and over Magdalen Bridge. Fortunately, by the time the visitor has reached the Plain his eyes are very properly riveted on Magdalen Tower, and he misses the attractions of the Plain. Of these, the most prominent is a promontory projecting westwards, dividing the Ifley-road from the Coxley-road. This promontory consists of a public-house, ending in a public convenience, flanked by a triangular vegetable garden on the south and a cemetery on the north.

"In the cemetery, diminutive and triangular in shape, stands Oxford's only public sculpture. This represents a soldier of the South African War period, standing in the attitude which, I believe, was in those days described as that of 'Prepare to receive cavalry.' He is apparently preparing to receive their attack from the direction of North Oxford. But the gallant soldier is partly unprepared, because he has forgotten to fix his bayonet and is suffering from acute rickets. It is a statue which has, by its example, made Oxford safe for citizens to live in and free from statuary."

STANLEY CASSON
in the *Oxford Times*

A WORD IN SEASON

"Almost everybody must have observed that the huge blocks of flats which are springing up in different parts of London—there are several in Chelsea, more between Chelsea and South Kensington, and more again along the line of

Kensington High Street and Kensington Road—tend to look overgrown. But why? Analysis shows that it is due not so much to the actual size of the building as to the fact that it is designed in a style associated with, if it did not originate in, a smaller size of building. Just because it is a perfect thing of its kind the Georgian house enlarges with difficulty to the size of a block of flats. It is difficult indeed to resist the conclusion that before we can get a completely satisfying flat architecture in brick—for an increasing use of brick is evident—the Georgian house must be forgotten and the conception of the building recast in terms of its own size. You cannot, for a homely illustration, go on letting out the boy's trousers indefinitely."

From a recent article in
THE TIMES

There are, alas, occasions on which the obvious cannot be too frequently stated.

CHANGING LEICESTER SQUARE

"Farewell, Leicester Square" is taking on a special significance, for the Leicester Square of history is rapidly vanishing.

"The demolition of the Alhambra is to be followed by that of an older and much more interesting building—No. 47 on the west side, the home of Sir Joshua Reynolds. The scene of the familiar engraving showing Reynolds with Johnson, Boswell, Garrick and others of their circle is one of its rooms.

"It was to this house that on one occasion came, though not with Johnson, that eccentric genius, Savage. There is a tradition that he was kicked down the still-existing stairs."

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To compliment a brick call it a*

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Trade News and Reviews

By BRIAN GRANT

Darts and Crafts

Time was when William Vere de Vere,
Despite his true blue blood
Was ostracised in Mayfair homes,
In fact, his name was "mud."
His bridge was most deplorable,
His dancing, too, too crude,
His ale-house ways and habits
"Quaite unrefayned" and rude.
But all that now has changed somehow,
And William's stock has soared;
A party without Willie dear
Is voted quite a "fraud."

Once ostracised, now lionised —
Amazing change of heart!
But then, you see, dear Willie throws
Oh, such a nifty dart.

Darts and shove-ha'penny, once the prerogative of those who patronized four-ale bars, are today "too-too" and "a la," if you know what I mean. Chelsea, the centre of arts, is fast becoming the centre of darts and soon the dartless studio will be quite unfashionable. I have even heard it whispered (tho' doubtless I have been misinformed) that a certain most exclusive and dignified West End club has recently installed a "Darts' Room"!

All this would appear to have little or nothing to do with "Trade and Craft," though, I suppose, the skilled dartist might reasonably count himself a "craftsman." As a form of entertainment "darts suppers" are congenial and amusing and I salute the bonhomie of a certain youthful managing director who invited a number of his business friends and clients to join him in "Hot dogs, Spud-murphys, Golden Ale and dart throwing."

Incidentally, a certain young architect, already awarded many laurel leaves for his skill as a designer, proved himself to be an uncannily dextrous dartist.

Burns, Buns and Bond Street

Burns night—January 25th—was certainly not a "braw bricht moonlicht nicht." Like all the other Jan. '37 nights it was damp and dismal, devastatingly so, and the Scotch (Scots?) tea-party so thoughtfully arranged by Edinburgh

Weavers provided a cheering oasis in an otherwise depressing desert. "We hope you will drop in and have a 'fly cup' with us" was the intriguing form of invitation sent out.

I was introduced for the first time to Ankerstock gingerbread, cream baps and black bun and after the Whisky Punch, played in by a piper, had adequately attended to our "central heating" we were introduced to an interesting advance display of "First Edition" fabrics.

Edinburgh Weavers started eight years ago at a time when little or nothing was being done in this country with fabrics of modern design. They tell me that the furnishing of Broadcasting House really "put them on the map" and established the acceptance of the new movement in this country—a movement which France and Germany had already been developing on the Continent but which was still in its infancy and being nursed through

its growing pains. The architects of Broadcasting House required modern fabrics and it seemed likely that they would have to "Heil Fatherland" as a source of supply. Edinburgh Weavers, however, filled the breach and undertook to make from the architects sketches any or all of the fabrics. Since then they have become more or less of a household word amongst architects and have in addition recently earned distinction amongst airmen as the inventors of vomit-proof fabrics.

Lumetuft

I was given details of a new patented process whereby any design in any colour-scheme can be tufted on to any close-woven fabric. The effects achieved might be compared with the illumination of old manuscripts. The work is done by hand, but a hand that guides over the cloth a fast machine which meets the modern demand for speed and low cost without



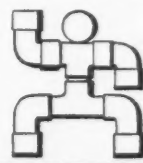
Left: "Hornpipe"—a hand screen print designed by Aufseeser for the Paris Exhibition. Right: Wall-hangings of chalk-white reversible satin. Design—the opening bars of Beethoven's Fifth Symphony. Craftsmen for both fabrics: The Edinburgh Weavers.

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Machine-pressed glassware that will retail at prices ranging from 2s. 9d. to 11s.
Manufacturers: Chance Brothers.

losing the quality of hand labour. An example of Lumetuft is illustrated on the preceding page—on a chalk-white reversible satin the opening bars of Beethoven's Fifth Symphony have been tufted; this design was specially woven for Oliver Hill as a decorative fabric for the music room at the Dorland Hall Piano Exhibition.

• • • This machine age

Machinery came into a world that distrusted and disliked it and manufacturers, as a piece of business integrity, took to disguising not only their factories

but the things made in them. The term "machine-made" was regarded as being synonymous with "cheap and nasty" and the market for machine-made goods had to be wooed by mimicry of the "hand-made." It has taken the manufacturer and the buying public a long time to recognize the machine as a friend and ally and not a fearful ogre to be despised and deplored; just as it is taking the world an incredible time to realize that an "age of plenty" is an age in which peace, prosperity and international goodwill should quite logically prevail. (Oh, shades of £1,500,000,000.) Here is a

photograph of modern glassware, machine pressed—good to look at and cheap to buy. The retail prices of the articles illustrated range from 2s. 9d. to 11s. I have seen the originals and can assure you that the photograph does not do them justice.

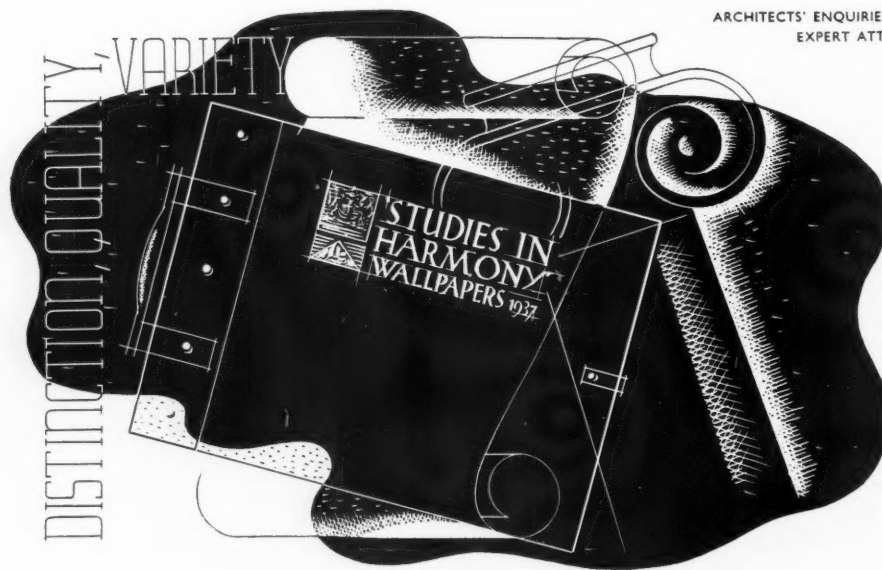
• • •

Weathermakers

The name "Carrier" will be familiar to most readers of these notes—if you think of "petrol" you think of "Shell," if you think of "air conditioning" you think of the Carrier Engineering Company.

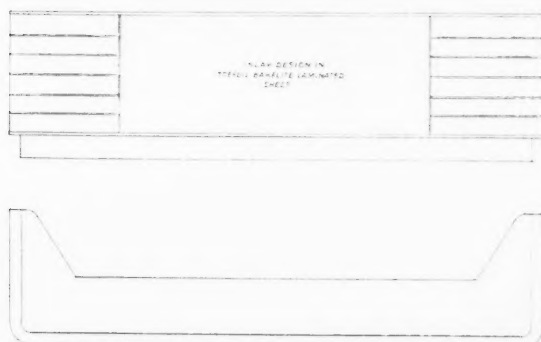
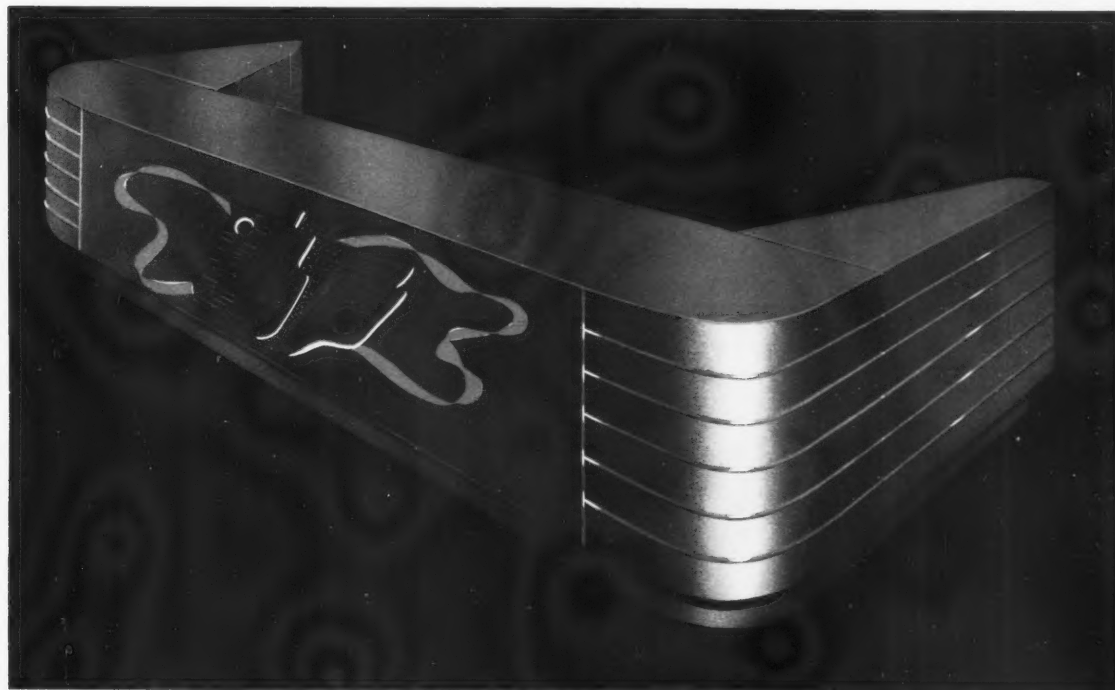
It is news, however, to learn that they are now manufacturing a portable self-contained air-conditioning unit that one plugs in, radio fashion, to existing power points. Two models are available—an air-cooled model requiring no water or drain connection, and a water-cooled model, requiring a water and condensate air connection, with a cooling capacity approximately 10 per cent. greater. A separate company, Carrier Weathermakers Ltd., with offices and showrooms at 27, Conduit Street, W.1, has been formed to market these units. Each unit is contained in a grained walnut cabinet of simple design measuring 40½ in. high by 30 in. wide by 18 in. deep and it is claimed that it provides all the functions of "year round" air conditioning as is obtained with a large Central Station plant.

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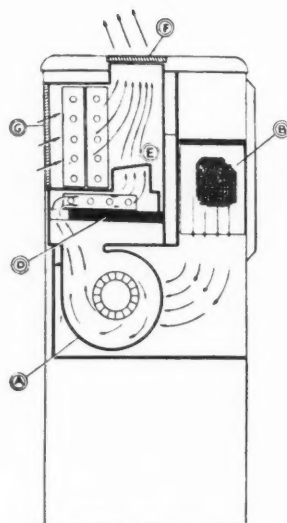
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Path of air travel

The accompanying cross-sectional drawing shows schematically the circulation of the ventilating and returned room air. The primary air for ventilation is drawn through "B" (a removable "throw away" filter) into the high-pressure fan "A" (having its own motor and therefore providing ventilation without cooling or heating if required) and is then discharged into the plenum chamber from which it passes through notched slots in the sound-silencer "D." An additional silencer is located at the inlet to the primary air fan in order to prevent the fan noise from reaching the room by travelling back through the supply duct, and the complete unit is also lined with sound-absorptive material. From the sound-silencer "D" the air passes through an arrangement of ejector nozzles at "E" which have been carefully designed so as to give the maximum induction effect with the minimum generation of noise. The high velocity discharge of this conditioned primary air through the ejector nozzles induces a flow of conditioned return air from the room into the unit through the grille "G" which joins the primary air stream and is supplied to the room at a slight angle forward through the grille "F."

Heating and humidifying equipment are incorporated in each unit, the desired temperature and humidity being automatically controlled by thermostats and hygrometers.



Fully illustrated details will be sent to you upon request, or working units may be seen and inspected at the Carrier Company's showrooms in Conduit Street.

Coronation decorations

I have received a request for "news of Coronation decorations that are really good to look at." Has anybody any such

news? I was sent some weeks back a catalogue or two designed to serve as a help and inspiration, but on perusal I found the contents to be just crude and vulgar. Incidentally the producer of one of these catalogues had apparently done a Rip Van Winkle act during the abdication period in November last.

Wanted—A coat of paint

It is to be hoped that at a very early date those responsible for the large timber "time-piece" on Grand Buildings (facing Trafalgar Square) will give this same "time-piece" a much needed coat of paint. I would address the same tender appeal to the proprietors of the two large advertisement hoardings situated to right and left of the aforesaid unclean offender.

"Clark for Glass"

James Clark & Son have built themselves new offices, showrooms and works (architects: W. H. Woodroffe and Son) and all communications should now be addressed to Scoresby House, Hill Street, Blackfriars, S.E.1.

"Clark for Glass" is a slogan that is familiar to most of us and the company's decorative department have been responsible for many outstanding examples of craftsmanship in glass. "Finella."

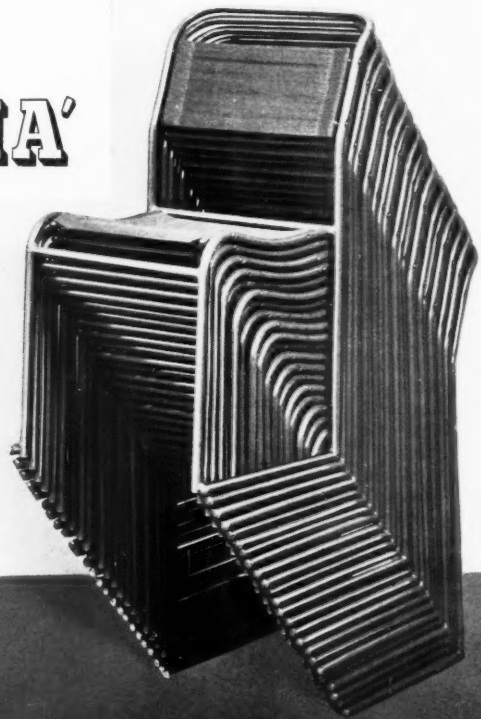
Pel is saving space in the

'AQUITANIA'

The 'Aquitania' is being re-fitted and these Pel Patent Nesting Chairs have been ordered by the Cunard White Star Company. Space is valuable on ship-board, and the fact that 100 of these chairs can be stacked on 20 square feet of space is reason enough for their selection. But space-saving is not all—their springy comfort, the ease with which they are cleaned and their sturdy construction make them the most restful and economical chairs ashore or afloat.



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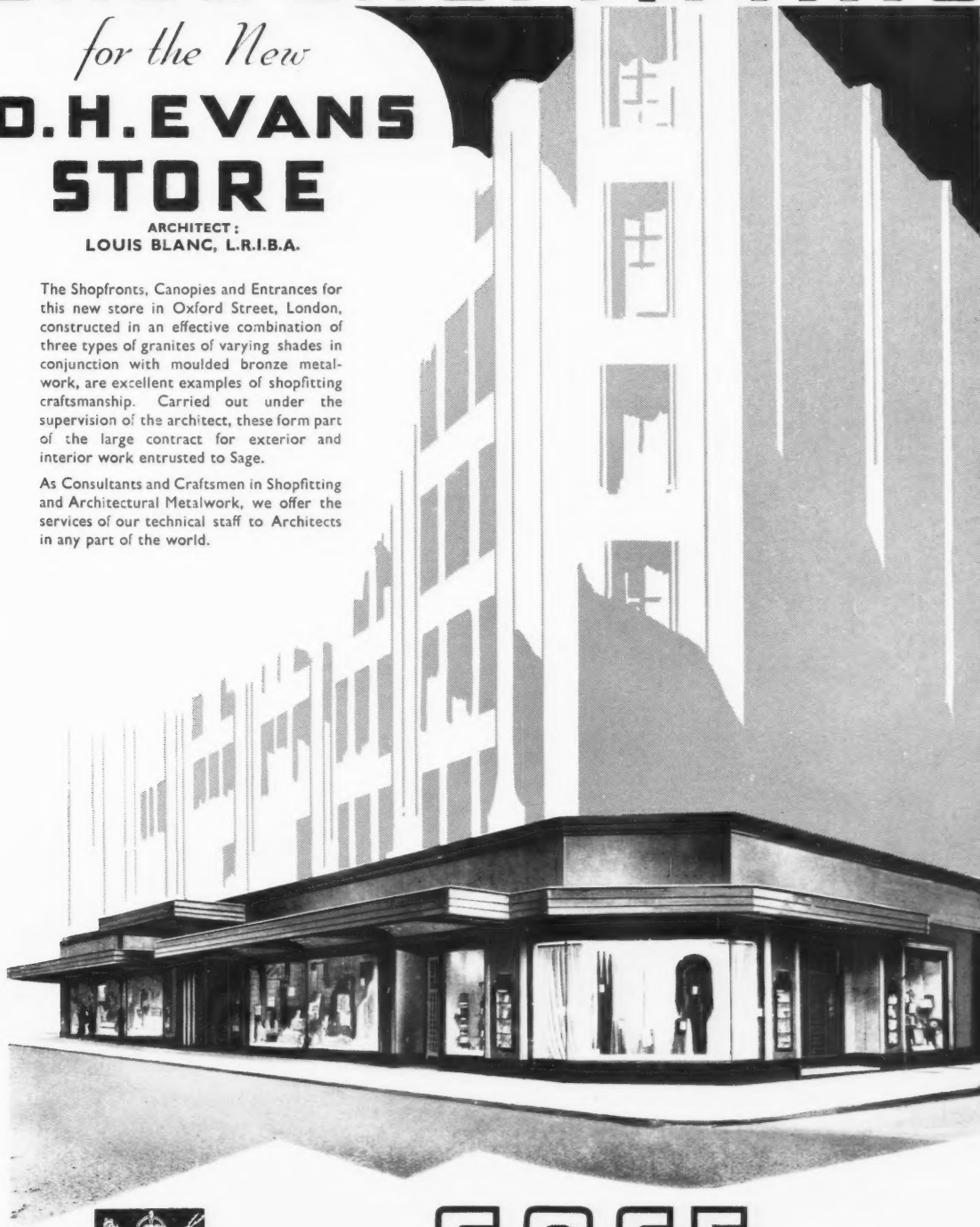
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ARCHITECT:
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The Shopfronts, Canopies and Entrances for this new store in Oxford Street, London, constructed in an effective combination of three types of granites of varying shades in conjunction with moulded bronze metalwork, are excellent examples of shopfitting craftsmanship. Carried out under the supervision of the architect, these form part of the large contract for exterior and interior work entrusted to Sage.

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Raymond McGrath's modern essay in glass was one of their earliest notable achievements, the intriguing all-black bathroom designed by Paul Nash for Mr. Edward James was another and, of course, the scintillant *Daily Express* building in

Fleet Street is a further monument to their industry.

Their new offices are little more than a "stones' throw" distance from their old premises—the telephone number remains as before, Waterloo 4611.

Design for Living— in Manchester

The accompanying photograph shows the dining- and living-room of an exhibition flat designed for Kendal Milne & Company by Walter Gropius. The walls are paneled in Port Orford cedar plywood, the furniture is constructed of Indian laurel with chromium fittings. The dining-room table is fitted with a built-in central turn-table.

The complete flat comprises an entrance hall, dining-room and living-room (convertible at will into one large room), a bedroom, kitchen and open-air balcony and is on view at the Kendal Milne store, Deansgate, Manchester. The bathroom and maid's room have been omitted owing to the restricted space at the architect's disposal.

• • •

Trade Publications

Asbestos - Cement.—Turners Asbestos Cement Company are to be congratulated upon the production of their latest catalogue—it is a veritable mine of information and those responsible for its compilation and editing deserve a generous vote of thanks for the painstaking and practical manner in which they have carried out their task.

Certainly asbestos-cement products, and they are many and varied in the forms that they take, play a considerable part in the building industry today.



Above: the POLO lamp.

In black, 25 -. In red, brown, cream or green, 27 6.

Below: the CORONET lamp.

Black shade and base, nickel stem, 67 6.

Red shade and base, polished brass stem, 72 -.

Two examples of efficient and beautifully designed table lamps.

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1936

has been a year of architectural progress—a year in which the architectural press has had occasion to review many interesting buildings where new methods of construction, finishing or decoration have been noticeable. Not the least interesting feature of many of these works has been the increasing use of Cementone Products for interior and exterior wall finishes. A list of some examples is appended.

	ARCHITECT	REVIEWED IN
Gatwick Airport	Messrs. Hoar, Marlow & Lovett, A.A.R.I.B.A.	Architect & Building News, June 5th Architects' Journal, June 4th Architectural Review, July
Brightwells (Flats at Clancarty Road, Fulham, S.W.)	Miss Jocelyn F. Abram, L.R.I.B.A.	Architect & Building News, July 31st
House at Holmbury St. Mary, Surrey	Mr. W. Dalton Ironside, A.R.I.B.A.	Architects' Journal, Sept. 10th
Peter Jones' New Building, Sloane Square, S.W.	Messrs. Slater & Moberly, F.F.R.I.B.A.	Architect & Building News, June 26th Architects' Journal, July 9th
Portobello Swimming Pool	Mr. W. A. Macartney, A.M.Inst.C.E., Edinburgh City Council	Concrete & Constructional Engineering, August
German Hospital, Dalston	Sir John Burnet, Tait & Lorne	Architect & Building News, Oct. 30th Architects' Journal, Nov. 12th
New County School, Weston-super-Mare	Major A. J. Toomer, L.R.I.B.A., Somerset County Council	Education (School Building Number), June 19th
House at Hook Green, Meopham	Miss Marjorie Tall	Architectural Review, Dec.
Park Court (New Flats, Crystal Palace)	Mr. Frederick Gibberd, A.I.A.A.	The Parthenon, Dec.
Larkswold Swimming Pool, Chingford	Mr. S. J. Hellier, M.I.M. & Cy.E., Chingford U.D.C.	Ferro-Concrete, May
Pinewood Film Studios	Mr. A. F. B. Anderson, F.R.I.B.A.	The Builder, Oct. 16th
Ritz Cinema, Seaford	Mr. W. J. King, F.R.I.B.A.	Cinema & Theatre Construction, Aug.

In **1937**

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Brief particulars, specifications and costs-per-yard of the ten Cementone Products are given in a Special Handbook for Architects and Surveyors issued by the sole manufacturers:—

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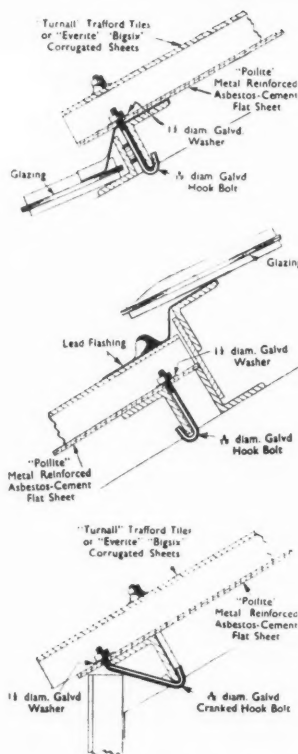
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Telephone : BATTERSEA 0877 (4 lines)

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Industrial Roofing.—As a roofing material for industrial structures asbestos-cement, in sheet or tile form, has much to commend it, providing as it does a most economical permanent covering, fire resisting and unaffected by climatic changes. The building sheets, flat and corrugated, are also used extensively as a wall covering (external and internal) and for ceilings and partitions. They have the advantage of being very light in weight and easily handled—the asbestos fibre gives to the cement that toughness and flexibility that enables it to be used in the form of thin light sheets which can be cut and sawn and yet are durable under all conditions of weather.

To meet circumstances that require greater strength, metal reinforced sheets have been introduced. The metal reinforcement consists of hexagonal wire, $\frac{1}{2}$ in. mesh, 19 gauge, embedded in the asbestos-cement during the process of manufacture. What is known as the T.A.C. system of roof construction incorporates the use of these flat reinforced sheets in conjunction with the ordinary tiles or corrugated sheets. The reinforced sheets are laid on the purlins and fixed with hook bolts, the vertical joints being butted and the horizontal joints lapped, and the roofing sheets or tiles are then fixed in the normal manner on top of the reinforced sheets. With this method of construction, in addition to the structural economy effected by the greater purlin spacing, the air space left between the



The T.A.C. system of reinforced asbestos-cement roofs—treatment at glazing and eaves.

double layers provides better insulation. The photographs reproduced in the "Roofing" section indicate to what a large extent asbestos-cement is being employed in the construction of industrial, agricultural and aircraft buildings in this country and abroad.

Domestic Roofing.—I have yet to be convinced that an asbestos-cement covered domestic roof can also be a thing of beauty. That it provides a covering that is durable, weather resisting and most economical is, however, beyond dispute. Is it not possible to produce a range of colours nearer in character to the traditional roofing colours of English domestic architecture? Or would it not, perhaps, be better if the manufacturers, rather than attempting to emulate the "charming and picturesque appearance" of English clay tiles and quarried slates, were to collaborate with some such body as the R.I.B.A. in the production of a range of plain, pleasant colours with a character and appearance of their own. It is unfortunate if a material having so much to commend it as an economical and exceptionally serviceable domestic roof covering, must continue to offend by reason of its aesthetic shortcomings.

Interior Decoration.—There are asbestos-cement products for the decoration of the walls and the floors and these materials are adequately dealt with in their appropriate sections in the catalogue. Again I have to quarrel with the

AS A PERMANENT INVESTMENT the shares of British banks and insurance companies offer safety of capital and certainty of income with excellent prospects of appreciation. Hitherto, investment in this field has been restricted by the high cost of the shares and the liability generally attaching to them in respect of uncalled capital. Through the Trust of Bank & Insurance Shares the investor can now acquire an interest, free from personal liability, in shares selected from fifty-two leading British banks and insurance companies.

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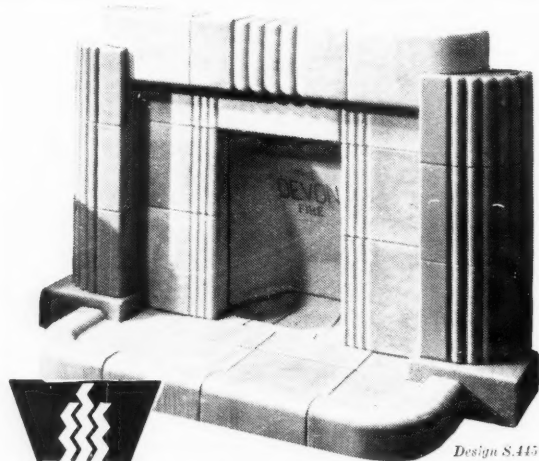
Bank-Insurance Units may be bought and sold at any time through any Stockbroker or Bank. The estimated yield at current prices and based on cash dividends is from $3\frac{1}{4}$ per cent. to 4 per cent. For full particulars apply to any Stockbroker or Bank, or to the address below, for Trust of Bank & Insurance Shares Booklet. Price of Units, 17th February, 22s 0d.

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a friendly fireside

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Write for the "Devon" Fire Catalogue—illustrated, free—and for the name and address of your nearest ironmonger holding stocks of Devon Fires to Candy & Co., Ltd., Dept. N, Devon House, 60 Berners Street, Oxford Street, London, W.1.



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SINCE GEORGE III WAS KING**



Architects:—
Minoprio & Spenceley,
A.A.R.I.B.A.

The 'Panella' conforms to modern architectural and decorative ideas in being a purely functional source of heat. It fits flush with the wall and it needs no hearth or orthodox mantelpiece. It can thus be placed at the exact position required by the decorative scheme. Its efficiency is attested by the makers' sixty years' experience. The radiants are of the 'Beam' pattern, giving soft and pleasant warmth.

Panella

GAS FIRES

First of their type

Full details and illustrations of the various models and finishes will be sent free on application to The Davis Gas Stove Co., Ltd., 7 Stratford Place London, W.1

Radiation

(Opposite Bond Street Underground)

colour reproductions shown—but then it is merely a personal quarrel; I just happen to have a very strong liking for plain pastel shades and an equally strong loathing for marbled and stippled “effects.”

The concluding sections deal with the miscellaneous and strictly utilitarian uses of asbestos-cement, such as rainwater goods, ventilating ducts and cable conduits.

As a whole the catalogue will be welcomed and appreciated as a valuable and standard work of reference on all matters relating to the use of asbestos-cement products: the large amount of practical data throughout is adequately illustrated by working drawings and sectional details. In order that the catalogue may be of permanent usefulness it has been bound on the loose-leaf principle and architects will be regularly serviced with such additional information and data as shall from time to time be published. Application for copies should be made to Turners Asbestos Cement Company, Trafford Park, Manchester, or any of the company's branch offices.

• • • Franco Spectrum Lighting

To those interested in modern lighting I would call attention to a brochure recently issued by the Franco-British Electrical Company.

Briefly, this form of lighting comprises a series of gas discharge tubes correctly balanced for colour values and mounted behind a translucent diffusing screen. The primary tubes contain a mixture of mercury vapour, neon and other gases, which is illuminated by a high-voltage discharge. The walls of the tubes are treated with certain chemical constituents which, when acted upon by the normal blue light emitted by the gas mixture, become fluorescent and transform the invisible ultra-violet rays into visible light. I have seen a modern showroom cornice-lighted by this method and the lighting effect given is highly pleasing—glareless, practically shadowless and with a soft, even distribution. The initial installation cost is somewhat high but I am told that this is more than compensated for by reduced current consumption and a considerable saving on maintenance charges and lamp replacement costs.

The Franco-British Company's London showrooms are at 25–27, Oxford Street, where demonstrations of this spectrum lighting are always to be seen.

Certainly it is a most adaptable and decorative form of lighting.

• • • Heating Economy

Messrs. Hartley & Sugden will be glad to forward details of the “Eske” patent

combustion system which their engineers have recently designed.

The system which can be applied to new or existing boilers of any standard type, effects a considerable reduction in fuel cost, caking slack coal being used in place of a more expensive solid fuel; it is estimated that a saving of 50 per cent. can, under ordinary circumstances, be obtained. Briefly, the system comprises a special electrically driven fan and an arrangement of welded steel ducting with control valves—the installation can be adapted to suit any boiler house lay-out provided the main principles of the circulation of the gases are observed, but is only applicable to batteries of boilers not exceeding three boilers with a maximum duty of 15,000,000 B.T.U. per hour. For batteries comprising more than three boilers, e.g., five boilers, one system would supply three and a separate system the other two. Most efficient combustion converts the coal into a very good coke and almost the whole of the calorific (heat) value in the coal is utilized.

The circulation of the gases is secured by the use of the fan, and as this is only required to run for a few minutes each day the consumption of electrical current is negligible.

Full particulars are obtainable from Hartley & Sugden, Ltd., Halifax, or from their London office at 357, Euston Road, N.W.1.

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