From Boston's classicists, a new use of Greek Revival...
A Boston firm, long famous for its precise rendering of the Colonial and Georgian vernacular at Harvard University, has recently completed the new building for the Fitchburg (Mass.) High School. Shifting the medium somewhat, the architects here employed a greatly simplified Greek Revival, which permits the juxtaposition of Classic and contemporary detail (pedimented doorways alongside horizontal spandrels and muntins) in such a fashion as materially to reduce the "fussiness" often found in designs employing the Colonial vernacular.

Plan of the building—which replaces an earlier school destroyed by fire—was determined by a small and irregular plot. Although a street separates them, the school overlooks and its students use the city park on the south. The slope of the plot is such that direct access to both auditorium and gymnasium is provided from the north, while main entrance and classroom areas are on the lower level to the south. This ground floor is largely given over to administrative staff and gymnasium activities, while classroom areas are concentrated along the southern front of the third and top floors. A maximum student population of 1,600 is thereby provided for.

Exterior walls of the school are of red water-struck brick with Fitchburg granite trim. The cornices are leaded copper with wood and copper cupola; soffits of all cornices are painted vermillion. The entire structure is second-class fireproof construction, fully sprinkled, with first-class fireproof construction in all corridors and stairways. The school is almost entirely heated by warm air circulated by ducts from a central heating plant.
FITCHBURG HIGH SCHOOL

East and west wings repeat the central motif on the front.

An unusually well-equipped stage serves the large auditorium. The decorative dado is of alternate veneers of birch and maple. Ceilings are acoustically treated and have recessed lighting.
Bellerive is a new beach park on Lake Geneva, west of the city of Ouchy. It is one of what will eventually be a great chain of parks, playgrounds, and other public projects extending eastward from this point to the city. A network of roads, wharves, and esplanades will assure easy communication with the city.

The entire beach at Bellerive, about 200,000 sq. ft. in area, has been dredged from the bottom, and lies lakeward of the natural shore line. On the side nearest the city are quays and a parking area for automobiles. Entrance to the park is by way of a circular building in which are located a restaurant and general personal services. From this rotunda there is direct access at each floor level to a three-story bathhouse which extends parallel with the beach for about 800 ft. On the west a leaf-shaded pergola leads from bathhouse to pool. In the great central space between beach and cabins are game areas, lawns, and paved rest spots; further growth of recently planted trees will, in time, give this area a more verdant appearance.
Rotunda at northeast corner of park. The ground story of the building opens on a lower grade beyond retaining wall at left. A restaurant occupies the top story and opens directly onto the bathhouse sun terrace, which extends length of the beach. Entrance to bathhouse is on first floor; persons at right are awaiting admission.
Men's cabins at ground level, women's cabins above, sun terrace on top; spiral stairways at regular intervals

One of the many paved and shaded rest areas for nonbathers
SWISS BEACH PARK

Section of pool

Plan of pool
1. Starting platform
2. Diving tower
3. Diving area
4. Beachside
5. Swimming section
6. Lakeside
7. Pergola
HOUSE FOR WRITER AFFORDS PRIVACY AND SPECTACULAR VIEW

ALEXANDER LEVY
Designer

Five hundred feet sheer above an ocean-inlet canyon at Laguna Beach, California, is the house of Richard Halliburton, writer and traveler. At the top of a steep roadway a 17-ft. retaining wall, hooked back into the bedrock, supports a level area from which the work of building was done. The site affords spectacular views in three directions—eastward through an uninhabited canyon to the mountains 80 miles away, northwest along the coast for 70 miles, and southwest across the Pacific for more than 60 miles. Every room in the house controls an ocean view and a canyon view.

The house is in earthquake country, sparsely settled and without adequate fire protection; therefore, concrete was indicated as the construction material. The use of reinforced concrete has made possible a lightness of structure and a width of span which permits maximum exploitation of the view.
The advantages of reinforced concrete construction have been utilized most fully in the design of the living room and dining room. The latter has a 6-ft. cantilevered bay permitting an unobstructed view in three directions. The living room has only two bear walls. On the sunset side is a 9 x 20 ft. clear glass curtain opening onto a narrow balcony. Composite are steel and glass accordion doors, 8 x 16 ft.; these open on a terrace cantilevered over the rim of the precipice, 50 ft. above the floor of the canyon.

An iron spiral stair rises from the terrace to roof, where a roof-sheated provides space for outdoor living in the California sun. A dumbwaiter leads from kitchen to roof, and meals may be served here without inconvenience.

All ceilings, like walls and floors are of reinforced concrete, floors are integrally colored, and doors are soundproofing privacy to the two who live here.
A concrete retaining wall, hooked back into bedrock, supports an upper concrete beam. Parking and passageway are below, and a visitor's lounge is provided above.

View from south

View from east
ABOVE: Living room, looking west. The elevated concrete hearth merges into three concrete steps crossing the width of the room. Hearth steps provide seating for a relatively large number of guests, without cluttering the room too many chairs. LEFT: Dining room, seen from gallery; bay is cantilevered over canyon.
CALIFORNIA HOUSE

Gallery, looking southeast

Master bedroom

Guest bedroom
Waiting room, eastbound platform

PLATFORMS

Elevation

Plan
WAITING ROOM of the
South Ealing Station in Lon-
don commands an unobstructed
view in all directions; east- and
west-bound trains on all tracks
can be observed with ease.

Of particular interest is the
construction of the roof, which
encloses waiting room and plat-
form. Timber rafters and board
covered with asbestos are sup-
ported by a welded steel frame.
The underside is lined with
"Test" fiberboard and finished
with flat oil paint. The roof
slopes slightly downward
from the center to a series of
pipes along the platform,
which empty into an existing
manhole.

LONDON TRANSPORT
Designers
View of shelter at dawn.

View of shelter at evening. This is a busy street intersection; trolleycars pass on three sides. In inclement weather, waiting commuters are shielded from snow and rain.
A rain shelter constructed by the City of Stockholm, Golden, performs its function with minimum obstruction to pedestrian traffic. In form like an inverted umbrella, it slopes downward slightly toward the center where an outlet carries off the water. Below grade the octagonal pillar passes through a bed of clay, its base resting on a substratum of fine sand more than 4 ft. underground.

The material, cast in a form of hardened masonite, is forced concrete throughout. Reinforcing of the slab is arranged as a network radiating from the center. High tensions in the upper part of the slab are taken by flat iron radii welded to a series of flat iron rings. The rest of the reinforcing consists of round bars, which are also joined by welding. Roof insulation consists of mastic with a protective layer of reinforced concrete above it. A sheet-copper drip runs around the edge of the roof. Visible concrete surfaces have been covered with two coats of a light grayish-green mineral paint. (See AR, 4/38, pp. 46-49.)

Close to the octagonal pillar is a newsstand operated by a vendor who has had his station here for almost a half-century. The stand is of welded sheet-iron and may be shut at the close of business.
Towers for personnel facilities—lavatories, lunchrooms, etc.—are shown. Each tower accommodates 250 workers.

Ramp: Center railings are removable; gradient is suitable for electric trucks; space underneath may be used for storage.
PRODUCTION INCREASED BY SEGREGATION OF AUXILIARY AREAS

BRIGGS MANUFACTURING COMPANY

Designers

R. WYLIE

Superintendent of Construction

The plant of the Briggs Manufacturing Company in Detroit, Michigan, is interesting for its separation of auxiliary facilities—lunchrooms, lavatories, elevators, stairways, etc.—from working spaces. Previous experience has demonstrated that continuity of production areas brought increased efficiency.

Employee facilities are contained in three towers, three stories in height, adjacent to the plant itself; each tower can accommodate 250 workers at one time. Elevators have been eliminated: ramps are used instead; these have been designed with removable center railings and with gradient that will permit electric trucks to carry to the second floor those materials which cannot be handled by conveyor lines.

Snow or ice formations on ramps are not expected to cause trouble; the same areas must usually be cleared anyway. If necessary, steam can be used to clear ramp surfaces—there is a steam outlet under each ramp.

Space under ramps can be used for storage tanks or for other objects which cannot conveniently be kept inside the building.
Talbott Realty Building. Structure is a combination of reinforced concrete and steel framing. Exterior is limestone.

Talbott Realty Building. There is a parking area at the rear of the building.
DESIGN FOR AIR CONDITIONING PLUS ACCESS TO OUTSIDE AIR

DOUGLAS LORENZ, AIA

Architect

The design of the Talbott Realty building in Dayton, Ohio, has been influenced strongly by air-conditioning requirements. Exterior walls include large panels of glass block and metal; glass block for maximum light with insulating value, metal sash for action and access to outside air—still architecturally necessary to many plants.

For winter conditioning, steam coils are fed from mains in the street transformed into heat to blower and duct systems through which air is filtered, tempered, and distributed. In summer, air is cooled by well water pumped through coils and delivered by the same blower and duct systems. The well water is fully ejected upon the roof, covering entire area three inches deep and providing additional cooling for top offices.

On the west wall of the building, glass block is again used generously in the ground floor, admitting daylight into the corridor and into the rear windows of retail shops.

The basement includes two large areas, one of which is fully equipped and furnished for café or country-club purposes.

Second and third floors

First floor

Basement
TOP: Retail shops have interior frontage on a spacious corridor leading both to street and to parking area. Use of glass block in wall reduces lighting costs. BOTTOM: Typical office. Each glass panel is about two-thirds glass block and one-third metal sash.
Transom Lighting Brings Increased Business to Cleveland Stores

T. MASTERSON Architect

M. POTTER Lighting Engineer

Transom lighting of two newly remodeled stores in the Cleveland area is credited with bringing quick rentals and increased sales. As part of the work of modernization, "hung-up" electric neon signs have been removed and continuous transom lighting has been substituted. A system of illumination is said to give greater visibility and to avoid glare and blur.
Metal horizontal-sliding window-frame introduced

Recently introduced in Belgium is a metal window frame which slides horizontally, and which can also be tilted forward at the top admitting air but not rain. To open, one sash is pushed out, the other is pulled in; each is then in a different plane and can slide one behind the other. When closed, both sashes are in the same plane and the window is said to be absolutely weathertight. Hinges and weights are unnecessary, as the operating mechanism is contained in the sash. Among the advantages claimed for this window are the following: that it can be cleaned more easily than vertically sliding sash; that it can be opened without the removal of articles inside; that it can be mounted without tools to admit furniture or other large equipment; and it will not move and clutter in a strong wind.

American patents have been applied for, but no distribution licenses have yet been granted here. Licences agreements have been made with some foreign manufacturers, including Canadian and British firms. The firm of John Thompson Beacon Windows Ltd., Beacon-Works, Wolverhampton, England, holds the British license.

Window combines casement and double-hung sash

The Supreme Window, manufactured by the Supreme Window Supply Corporation, 45 W. 57 St., New York, N. Y., acts both as doublehung sash and as casement. Normally, it operates as a double-hung window; but when the lower sash is raised to within a few inches of the top and the upper sash is completely lowered, the two sections can swing into the room and moved up and down to any position desired. When swung in, clearing, regulating, and painting are made safer and easier. The window comes in stock sizes and in special sizes, in wood and in metals, assembled and knocked down.
DESIGN TRENDS

PRAGUE—An ancient background for modernism
PRAGUE . . .

A thousand years ago this “town of a hundred towers” became the capital of an independent Czech state. Today, as the metropolis of the Czechoslovakian Republic it ranks eighth in area, eleventh in population, among European capitals.

The history of Prague is the history of the ancient Kingdom of Bohemia and, in a certain sense, the history of Central Europe. Ever since the Premyslid princes fortified a rocky eminence on the lower banks of the Vltava River, Prague has been important as a factor in the economic, political, and architectural development of Central Europe.

Under Charles IV (1346-1378) of the house of Luxembourg, Prague became the largest city of Central Europe and the cultural center of Holy Roman Empire. For over a century Prague developed as a center of Gothic architecture; but late in the 15th century the city’s character changed under the influence of the Italian Renaissance. In 1610 a rebellion against the ruling House of Hapsburg was followed by the Catholic Restoration that converted Prague into a Baroque capital period that ended about the close of the 18th century. Prague was Germanized as a provincial town of the Austro-Hungarian Empire until the Czech element reasserted itself in 1861.

Modern Prague dates from 1918 when it became the capital of the Czechoslovakian Republic. The city expanded; and the rapid construction of new buildings, streets, and parks added entirely new quarters to the old city. New bridges were thrown across the Vltava and some of the streets and old structures changed. But largely the character of the ancient town was preserved; and the development of modern Prague is most evident in outlying districts.

Throughout this development the Czechs have sought the newest, post-war architecture changed from “cubism” to “the plastic-decorative style” into what is now generally called “modern.” Spurred by the post-war pioneer architects of Holland, Russia, France, and Germany, Czech architects rapidly mastered a technique of their own. The following pages report recent solutions to a variety of design problems. The buildings suggest the trend of Prague’s future development. They also provide a commentary on the influence that availability of materials, equipment, and services—here as well as in Central Europe—is having on solutions to current problems of building design.
On wooded slopes of suburban Prague modern houses provide startling contrast to the fortified castles of the ancient Czech nobility. This one, designed by Ladislav Zak, architect, is part of a small country estate that includes a garage and a greenhouse. The terrace elevation faces south giving the second-floor living rooms the greatest amount of sunshine and a clear view of the entire estate.
Construction is a combination of reinforced concrete and brick bearing walls, insulated with sheets of treated wood shavings. Windows are double-glazed; doors, plywood in steel frames. A partition of plate glass slides out from the wall to separate living room and study spaces when desired. The house is heated with a warm water plant; domestic hot water is supplied from an electric unit.
View from living room toward dining room (left), kitchen (center), and study (right).

Dining room. Terrace beyond bay is used as an open-air living dining room.
The newest and largest of Czechoslovakian civil airports—Ruzin Airport at Prague—serves as an important junction of international and local airlines. The airport building, designed by Adolph Benes, architect, contains a large waiting room, customs, ticket, and administration offices and an excellent restaurant.
SCHOOL...

Prague, wherein is located the oldest university in Central Europe, numbers among its modern educational plants, the Reform Grammar School which corresponds generally with a commercial high school in this country. Owned and administered by the State, it was designed by Eugen Linhart, architect. Its modern technical equipment includes a small astronomical observatory as shown in the picture below.
Like several other modern structures in Prague, this school is faced with buff stucco colored a deep buff. The recreation terrace on the roof, shown in detail on the facing page, is faced with tan-colored terrazzo. This page, right, is a typical corridor lined with well-lighted and ventilated locker spaces.
In the newer portion of Prague is the General Pension Institute, designed by J. Havlicek and K. Honzik, architects. The highest modern building in Prague, it combines office space with a number of apartments and stores. It is air-conditioned throughout, constructed of reinforced concrete and faced with white glazed ceramic tile. Below, right, is a view of the main entrance at the upper level of the slope on which it is built.
An air-wise map of the Earth, devised by Buckminster Fuller. It centers on the north pole, and in it all dry land appears to be one continent. Fuller calculates that if man were to be deployed over the pleasantly livable and arable areas there would be but 80 persons to the square mile. On this basis each family would have about 80 acres. He also calculates that if all the earth’s 2 1/3 billion people were to stand one upon another’s head, they would make nine complete chains to the moon. Computed, they would make 10 billion cubic feet. "Yet if put under a gigantic hydraulic wine press, so that all the water and gas might be squeezed out of them, they could be compressed into one Empire State Bldg."

Dymaxionizing the Universe... a review of Nine Chains to the Moon

YEARS AGO there came out of Chicago an inventor of a small-scale model of an extraordinary sort of housing—an hexagonal-shaped affair suspended by cables from a central utility tower mast—which he argued could be factory-fabricated in quantities so large that the economics would be like those in the auto industry. The model was called the Dymaxion—a term coined from dynamic and "maximum." Soon, he predicted, it would be in production.

A decade has gone by. The Dymaxion House still wins an idea, but the world of architecture has changed considerably. If the changes seem revolutionary in character, then Buckminster Fuller, the Dymaxion inventor, can be held largely responsible. His ideas are unchanged; his预制 have penetrated far; it is now a general belief that inevitably the building field will be completely industrialized. Nor have the years been barren of tangible accomplishments. In 1933 came the Dymaxion Car, a 3-wheeled rear-engined streamlined "motor-mobile" designed in collaboration with Starling Doll, the racing yacht architect. In 1936, out of the Los Angeles research laboratories, came his integrated room, a structure with walls, floors, and fixtures designed all as a single compact unit.

Now comes a book on the Dymaxion philosophy, and a prediction that before July 12, 1948, the mass production of mechanical chassis of dwellings will attain one million units per annum, in the U. S. the curve of rising rapidly therefrom at the end of the ten years. There are 21 other predictions, covering such diverse fields as population shifts, a mechanical stock exchange, the new farm mechanics, socialization of leisure, labor evolution, insurance evolution, and the change in name of New York City to "Radio City," all neatly tabulated.

Forecasting is a necessary consequence of the Dymaxion philosophy which holds that everything in the universe is constantly in motion, and that if the cosmic forces are recognized and their interplay understood, then the inevitability of certain trends becomes apparent and various events in the line of evolution can be anticipated. To this extent Fuller is a materialist in his philosophy.

But he goes further: in an expanding universe, which he takes as his basic concept, the pattern of inevitability is revealed long in advance to those who have a teleologic perspective of the universe. At this point there creeps into his rather mechanistic philosophy a mysticism which is perhaps best understood if one remembers that Margaret Fuller of the Brook Farm transcendentalists was his great-aunt.

Man, so he states, is guided by a "phantom captain," who abandons ship at the instant of death. This captain has neither weight nor tangibility, but he has an infinite understanding and sympathy with all captains of mechanisms similar to his. What is this sympathy? It is "an intuitive awareness of perfection which serves as a universal yardstick relative to which any sense experience may be measured, and by virtue of which conscious selection may be made." Since some phantom captains are more sensitive than others, it is obvious that some individuals are favored to see farther ahead.

Into this idea of a superior and purposeful existence, which is expressed in fear and longing as the primary motivations of man, is blended the idea of an expanding universe. In such a universe it follows inevitably that the longing types of humanity should become dominant. Out of longing come the physical extensions—machinery,
personal equipments, intangible services—which permit man to control his environment and to articulate himself into immortality. Generic to this “new and thrillingly immunized LIFE unfolding in fulfillment of age-old dreams of freedom and growth” is the inevitable development of a universal shelter service with its mass-produced scientific dwelling-machines—the Dymaxion, Q. E. D.

Such, in brief, is the Dymaxion philosophy. In setting it forth, Fuller (or rather, his phantom captain) mounts the soapbox, comes in from outer space, discovers “Earth” and “Man”, translates energy into dollarability (as moron prime-movers, he calculates, men would earn $4.30 in a life-time of work if they were paid at the same rate as a hydro-electric generator), comes down through the ages, discovers Einstein and mathematics, span-spins from abstract thought to physical science, encounters Leonardo da Vinci (the first phantom captain to suggest the possibility of standardized mass-production houses), zooms across to America (the land colonized by the longing types of humanity), glorifies the rustless alloys, commemorates Henry Ford (the phantom captain who consolidated the scientific emergence), recommends the use of stored-up gold to provide reflecting surfaces for beamed radio transmission of power, scolds the communists, condemns finance capitalism (conveniently dramatized into wicked old “Fincap”, who typifies fear), announces the impending socialization of the plenteous categories of production, throws in the sponge for the patent system, identifies the recirculation of metals as the factor that is upsetting the economic system (“scrap is changing Fincap willy-nilly into a good boy”), views with optimism the growth of the CIO as a manifestation of industrialization, harangues the architects and the building trades for having tried to kill off the idea of industrialization, razzes the “pre-fabricators”, suggests the tearing down of all buildings under 10 stories in height in New York City, specifies the requirements for a scientific dwelling service, and finally spirals off into the future to eavesdrop on Jones who is having a tête-à-tête with a charming young lady from Planet 80XK23 in trapezoidal segment 727831 of the star layer of the expanding universe.

Time and space have no limitations in this book: as an adventure story of thought, which the jacket proclaims it to be, it is likely to leave the reader dizzy with its impudent flights of fancy. Even though he may disagree most heartily with the Dymaxion philosophy, it is also likely to stimulate the reader’s own imagination.

The title itself, according to Fuller, was chosen to encourage and stimulate the broadest attitude toward thought. “Simultaneously, it emphasizes the littleness of our universe from the mind viewpoint. A statistical cartoon would show that if, in imagination, all of the people of the world were to stand upon one another’s shoulders, they would make nine complete chains between the earth and the moon. If it is not so far to the moon, then it is not so far to the limits—whatever, whenever or wherever they may be. Limits are what we have feared. So much has been done to make us conscious of our infinite physical smallness, that the time has come to dare to include the complete universe in our rationalizing.”

Paradoxically, however, in sweeping aside the barriers of time and space, the Dymaxion philosophy sets up its own limitations. All is predicated on the hypothesis of an expanding universe: if science should disprove this, then the theory of a purposeful inevitability of events collapses like a pricked bubble. Nor does the anthropomorphic concept of a phantom captain guiding help matters—this is nothing but complexity squashed. Where do the individual phantom captains come from?

In an expanding universe even a phantom species have a finite beginning and a course of evolution, question is not answered.

Likewise, in rationalizing human motivations into and longing, and the identifying individuals and abstractions like ol’ Fincap (another anthropopram specimen) with these forces, the logic leads straight to the choice of either black or white—with all the inbet grays ignored. This is an over-simplification of the book itself: it is black as well as waltz.

The book abounds with blunders—nonsequiturs, contradictions and plain errors of historical fact—Sus scabs enough for anyone who writes in the name of science, and “Mobilata” (data) and “vitalistics” (statistics) thrown at the reader with extravagance but rarely any credit as to source. Hardly any of the precepts forth for scientific design are observed: inaccurate invariance, not reflect “precision control” nor does verobility represent “doing the most with the least.” Out of the wall of words it is difficult to extract a clear impression of the Dymaxion philosophy; always it is obscured by the box tirades. Surely this is not a demonstration of the “segregation of functions” that makes for good design.

Nevertheless, all these faults can be forgiven for the onlooking which Fuller opens into the industrial Utopia at home, and other. Here is a new architecture to be had,—with a new thrill and fine! But how?

It is not enough to say that this Utopia is inevitable. If it is possible to make predictions, it is also true that economic progress becomes increasingly possible to negate these same predictions. This is implicit in the idea of environmental control, which Fuller himself identifies with the idea of scientific shelter. In fact, it is entirely conceivable that his book, intended to speed up industrialization, may be turned into a weapon of reaction to slow down the dystrial advance.

The nearest Fuller comes to a detailed explanation of how the new scientific dwelling machines are to be brought into existence is the report by the young engineer from Planet 80XK23 of what happened there: in an emergency of a civil war the X-tans discovered that the mechanisms provided a relatively safer survival, and used them as temporary expedients but learned so much that they never returned to their “hum dumpy vanity tailored habits of pre-war days.” It is clear by implication, however, that government subsidy is the means whereby the Dymaxion dwellings are to be achieved. Here again the reader runs into a fog of thought. Fuller’s interpretation of the evolution of society puts the emphasis entirely on the development of technology. Advances on the economic front and the interaction with advances made along the technical front are left in abeyance. Consequently, he has to answer the question: what kind of government will furnish the subsidy? . . . In setting up the thesis that a new architecture will bring into existence a new society, it is necessary for Fuller, or others, to explain the economics whereby the existing society can achieve this new architecture. Otherwise, the line of evolution is broken—there is no progression in an expanding universe.

C. THEODORE LARS

This Yearbook is a compilation of seventeen articles on important aspects of the housing problem—some in official and some in private positions. Some of the titles and authors are: The First Six Months of USHA by Catherine K. Bauer; FHA's Activities in 1937 by Stewart McDonald; The Federal Home Loan Bank System's Work by John H. Fahey; Housing Activities of the Farm Security Administration by Will W. Alexander; The Significance of the Greenbelt Towns by Tracy B. Augur and Walter H. Blucher; The Architect's Place in Current Housing by Alfred Kastner.

There is a directory of housing agencies. Included, too, are selected bibliographies on housing and on building codes.


One in a series of photographic studies on the minor domestic architecture of England. This is the first volume to be compiled by Mr. Ingemann, although the General Editor, Dexter Morand, has already issued a previous volume on Minor Architecture of Suffolk.

The author has dealt mainly with 17th and 18th century structures of the Cotswold area. Some reference is made to the typical Avon and Severn lowland types of cottages, but for the most part this portion of Worcestershire has been covered only sparsely because of the similarity of these cottages.

The photographs cover in particular two types of domestic architecture. First, the so-called "black and white" structures of roughly-hewn timbers and whitewashed brick and, second, the well-weathered limestone structures which are so often found in this district.

The plates have been assembled to furnish charming views of entire houses rather than dealing with any particular details or phases of the buildings.

Welding Handbook. Published by the American Welding Society, New York, 1938. Illustrated from line drawings, charts and photographs. 1,211 pages. 6 1/2 x 9 1/4 in. Price: to members of the American Welding Society, $5.; to non-members, $6 in U. S. A., $6.50 elsewhere.

Primarily issued for use by the metal industries, this volume—a first edition—has been developed by 90 authors. It has been prepared "to cover, first, the fundamentals of the various processes, second, the materials used and the testing methods involved, and third, the applications thereof."


A textbook on the design of steel-framed structures in which data on structural shapes and other material have been brought up to date. First issued in 1932.

Trend Notes on a Building World

Design for Time-control...

Little interested as most building designers may be in what the archeologist of 6938 may think of the year 1938, the "time capsule" (left), which Westinghouse sank recently on the site of its exhibit building at the New York World's Fair has certain implications for building design. For the "time capsule", late in a series of scientific "cornerstones", is an ambitious attempt to project some record of modern man 5 years into the future. And to achieve this, two things were essential: a compact collection of data on present day science, art, and industry (mostly on microfilm) and a truly permanent structure for "housing" this information. This last became a design problem of the first importance, and it is significant that Westinghouse engineers were forced to abandon the natural materials to which the average building designer has adhered in such cases. Instead, they used a metal—Cupaloy*—for the outer capsule, a new plastic for the liner of glass, glass tape for packing, and an atmosphere of inert gas instead of air. Cupaloy could, in this particular "building type", rely on the methods of production ordinarily used in the building field. The alloy had to be produced and the capsule fabricated under controlled conditions with precision instruments. Scarcely though commissions for buildings lasting 5,000 years may be, the architect may keep an eye on such "stunts" as these, for time-control is of increasing importance in building design.

*Recipe for cupaloy: Melt the copper, then deoxidize it with boron. Nitrate briquettes of copper-chromium, mix in a "pinch" of air, stir well while metal heats in a crucible to 2500° Fahr heard. Cast a mold and machine. Result is an alloy hard as steel which—steel—receives deposits instead of being eaten away by corrosion.

Heat without hotness...

Another tour de force from the publicity world to be ignored by the building field was General Mo "Parade of Progress"—a national auto caravan to up interest in G-M's exhibit at the Fair. Carried length and breadth of the land (in eight streamlined transport trucks already described in AR, 4/36, p. 5) were a series of demonstrations of recent developments from G-M's research laboratories. Of immediate interest to the building designer was a "cold stove" (lower left) on which eggs could be fried, water boiled without scorching an interposed newspaper. This of this apparent contradiction was a new inductance furnace which, by magnetism, creates enough "molecular friction" in the pan to heat it. Although G-M promotion men eagerly pointed out that it also "flashes" sparks and makes aluminum rings jump into the building designers with new problems on their hands might do worse than to follow such developments.

(Additional Trend Notes on page 87)
Current Trends of Building Costs

Compiled by Clyde Shute, Manager, Statistical and Research Division, F. W. Dodge Corporation, from data collected by E. H. Boeckh & Associates, Inc.

Curves indicate control trends in combined material and labor costs in the field of residential frame construction, the monthly curves being extension of the local cost averages during the years 1935, 1936, and 1937. The base line, 100, represents U. S. average for 1926-1929.

Tabular information gives cost index numbers relative to the 100 base for 9 common classes of construction, thus showing relative differences as to construction types for this year and last.

Cost comparisons or percentages involving two localities can easily be found by dividing one of the index numbers into the difference between the two. For example: if index A is 110 and index B, 95, (110-95)÷95 = .16. Thus costs in A are 16% higher than in B. Also costs in B are approximately 14% lower than in A: (110-95)÷110 = .14.

Construction Cost Index

U. S. average, including materials and labor, for 1926-1929 equals 100.
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way to residence, Beverly Hills, California, designed by Gordon B. Kaufman

OUTDOOR STAIRWAYS

lined with AMERICAN ARCHITECT and ARCHITECTURE  

DESIGN TRENDS
facing page: 1 is in Philadelphia, Pa., R. R. McGoo dwinn, architect; 2 was designed by H. E. Woodsend for a residence in Harriman, N. Y.; 3 is in Cob Cob, N. Y., H. E. Woodsend, architect; and 4 is in Los Angeles, Calif., by Selden Price, architect.

this page: 5 is a covered stairway at Lake Sunapee, N. H., signed by Prentice Sanger. 6, Mamoroneck, N. Y., is the work of James Bevan; and 7 is at Greenwich, Conn., H. E. Woodsend, architect.
Facing page: 8 is a stairway at Hollywood, Calif., designed by Carl Weyl; 9 is at San Antonio, Texas; 10 is in Palm Springs, Calif., designed by John Byers, is in Hollywood, Calif.

This page: 12 is at Beverly Hills, Calif., of which George Washington Smith was the architect; 13 is at East Hampton, Long Island, and was designed by Robert Tappan; and 14 is Beverly Hills, Calif., Roy Seldon Patrice, architect.
15 is in Brentwood

16 is in Greenwich Village, N. Y., architect not known.17

18 is in Wychwood, Oxfordshire, England, designed by Messrs. Griffiths, Jones, and Smith.19

19 is in New York.

20 is in Brentwood, and was designed by Walter Bradlee Kirby.

21 is in Richmond, Va., designed by Duncan Lee, architect; and 21 is in Wychwood, Oxfordshire, England, designed by Messrs. Griffiths, Jones, and Smith.

22 is in Richmond, Va., designed by Duncan Lee, architect; and 21 is in Wychwood, Oxfordshire, England, designed by Messrs. Griffiths, Jones, and Smith.
22 is a spiral stairway on roof of a villa at Savoye-Seine, France, designed by Le Corbusier and Jeanne. 23, also designed by Le Corbusier and Jeanneret, is in Paris, France. 24 is another spiral stairway for a residence at New Hartford, Conn. Howe and Lescaze, archite
End Notes (Continued from page 76)

Temperature control checks corrosion

Having already drafted her hot springs to heat her greenhouses and warm her swimmers, Reykjavik—capital of tiny, frigid Iceland—has now laid plans for harnessing more of the natural hot water. Recently drawn plans call for a system adequate to heat half the dwelling units of the capital city at the start. But hot water, however heated, is destructive to the water supply system. Engineers, estimating that corrosion activity doubles with every 10° rise in temperature, have evolved such methods of combating corrosion as the electrolytic process described in AR, 8/38, p. 57. Another method of at least checking the effects of corrosion has recently been perfected by Anthracite Industries, Inc. (New York City), the use of a water temperature regulator. Said All engineers: hot-water systems unequipped with automatic regulation undergo alternate increases and decreases of temperature. The consequent surges of circulation stir up rust. A simple, inexpensive regulator now available permits water to heat at a steady rate, precipitate rust.

Paints that "blush" and smell...

Recent developments in finishing and surfacing materials indicate many potentialities for the future. Already reported are paints that extinguish fires (AR, 11/37, p. 37): but now, according to Nation's Business, we are to see paints that get so excited in the face of rising temperatures that they change their colors! A series, designed to register temperatures from 104° to 464° F., is shortly to be marketed. Some of the colors are retroactive, some change permanently.

... From National Painters comes word of the immediate practicability of both deodorized and reodorized paints. A commercial deodorizer is already available which, when mixed with paint, effectively kills its characteristic odor. Moreover, according to N.P., it is now possible to reodorize...
THE Symbol of
THE NEW AUTOMATIC HEATING

Recent improvements have revolutionized automatic heating. The Symbol of these improvements and of the seldom seen control system that actually makes Automatic Heating automatic is the smartly styled Acratherm. More than a thermostat, the Acratherm embodies the exclusive "M-H" Principle of Heat Accel-
eration. The new Automatic Heat equipment, with the new Minneapolis Honeywell Controls, will bring you cost-free winter comfort. Though they cost more than ordinary controls, most dealers supply them as standard, or, at but slight extra cost. Look for the "M-H" Symbol. It means you are getting the best.

MINNEAPOLIS-HONEYWELL
Control System

BROWN INDUSTRIAL INSTRUMENTS
NATIONAL PNEUMATIC CONTROLS
MINNEAPOLIS-HONEYWELL REGULATOR COMPANY...MINNEAPOLIS, MINNESOTA

The above advertising message will be carried to millions of readers through the pages of The SATURDAY EVENING POST and TIME Magazine...Minneapolis Honeywell controls will lend prestige to every job.
BUILDING TYPES

HOUSES . . . . . $15,000 - $25,000

FORTHCOMING 1938 STUDIES: Houses ($25,000 and up) — November; Office Buildings — December; PRECEDING 1938 STUDIES: Apartments — September; Hospitals — August; Theatres — July; Factories — June; Schools — May; Houses ($7,500-$15,000) — April; Houses ($7,500 and under) — March; Retail Stores — February; Hotels — January.
The $15,000-to-$25,000 House

Since every house design is based on human requirements, specification for family living—a designer selects materials, equipment and evolves a form, within necessary limits of space and cost, to meet the specification. Variations such as cost size do not materially change the fundamental problem nor method by which it is finally solved; though either factor or both may complicate it.

Because cost is so generally recognized as a broad classification of types, it has been used to designate the four parts of Record’s 1938 studies on homes. The survey of $7,500 homes published in April, revealed that the small individually designed house is, apart from surface appearance, largely a standard type. Judging from designs submitted to the Record, the standard is acceptable to many owners who pay twice or three times the amount for their houses.

Where minima govern sizes, number and arrangement of space and equipment of the small one-family house, larger houses, meeting the same fundamental specifications, provide greater areas, more spaces often more comfortably arranged, and more equipment designed to lessen the labor of housekeeping. Within the limitations imposed by a $25,000 top, such expansion seldom takes place in all directions simultaneously.

Some of the types of expansion noted in the houses selected for study in the following pages include: increased dimensions of added living areas such as “quiet” rooms, hobby or playrooms, bars, gardens, terraces, and other outdoor living areas. Expansion in equipment or utilitarian spaces may include: built-in furniture more completely engineered and equipped heating or air-conditioning systems, more expensive plumbing fixtures, tailor-made radial and the like. A garage, usually for two cars, is an almost universal adjunct.

Time-Saver Standards based upon minimum clearances and dimensions of commonly used furniture, and equipment and requirements for service systems, have been presented in earlier studies. Time-Saver Standards in this study are devoted to fundamental outdoor design problems.
Outdoor Living Areas

Development of outdoor areas for living purposes requires as much care and thought as do those within-doors. The accompanying checklist is intended to bring to the designer that he is in providing such outdoor areas.

The list may be reorganized, added to, or amplified at will. It is recognized that many schemes can be evolved for a given plot, each in its way fulfilling a set of requirements. Therefore, precise recommendations are not the scope of this study.

Types of outdoor areas

A narrow definition of outdoor living areas eliminates all but those strictly planned for dining, relaxing, playing, entertaining, reading. Placement of such areas in relation to the house is a matter for consideration in reference to ease of access indoors; convenience for service.

In relation to outdoor factors, the following are important: placement for sun, shade, summer breezes; ease of privacy desired; utilization of pleasant outlook; circulation. Depending on the importance assigned the preceding factors, house and landscape design may be modified to enhance or alter existing natural conditions.

In planning, constructing, and equipping outdoor living areas, the following are important: sizes, dimensions, and clearances adequate to contain furniture, equipment, and persons using them; foundation, structure, and surfacing of areas to suit their purpose; and furniture and equipment for lighting, shade, radio, water supply, and similar services.

Time-Saver Standards on the following pages present methods of constructing common outdoor units. Data have been assembled from material compiled by A. D. Taylor, Landscape Architect, President, American Society of Landscape Architects. All information reflects common practise.

Bibliography


At left, garden terrace, house of Frank Beetsn, Flintridge, Calif.; Marston & Maybury, architects. Above, terrace, house of William H. Baldwin, New Canaan, Conn.; Cameron Clark, architect.

CHECKLIST for OUTDOOR AREAS

TYPES OF AREAS

Public areas
Lawn, planting area, entrance drive, etc., facing on public highway

Utility areas
Service court; service entry; drying yard; refuse disposal area; garage; kitchen or vegetable garden; children's play area; tool and equipment storage space

Living areas
Porch—living or dining; terrace—living or dining; seclusion area; cooking area—outdoor fireplace, grill, barbecue; sunbathing area—deck, garden, etc.; exercise area; hobby area; game area; court; pleasure garden; pool—fish, lily, reflecting, swimming; court, patio; lawn; garden house; arbor, trellis

BOUNDARIES, CIRCULATION
Walls, fences
Retaining; boundary; ornamental
Walkways
Entrance; service; garden
Roadways
Entrance drive; service drive; private road; bridle path

SERVICE SYSTEMS

Water supply
Lawns; planting areas; gardens—vegetable and pleasure; pools—fish, lily, reflection, swimming; service, ere, washing, etc.; garden structures, outbuildings, etc.; hobby areas

Drainage
Subsurface; surface; garden structures, outbuildings, pools, etc.

Lighting and power
Entrances; garages, outbuildings, hobby areas; roads, walkways, garden and grounds

BUILDING TYPES 91
Information contained in the notes and drawings on this page and the following three pages is based on common practice. However, other methods than those illustrated will often prove entirely satisfactory; the data are intended to serve as guides in developing solutions to individual problems.

In some cases data may be adapted to other structures than those expressly indicated. Walkway seating, for instance, is similar to terrace seating.

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**CATCH BASIN WITH CURB INLET**

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**SCALE: 1/2" = 1'-0"**

NO SCALE

Prepared by A.D. TAYLOR, LANDSCAPE ARCHITECT
OUTDOOR AREAS—DRIVEWAY CONSTRUCTION

TURF DRIVE
4" AGRI. TILE
MIX STONES 2'-6" IN SIZE WITH SANDY LOAM TO FILL Voids

GRAVEL
SCREENED PIT GRAVEL 1/2" - 1/2"
COARSE GRAVEL, CRUSHED STONE OR SLAG 1"-3" SIZE
NOTICE: LIMESTONE SCREENINGS MAY BE REQUIRED AS BINDER PARTICULARLY FOR WASHED GRAVEL SURFACE

ASPHALT (OR FINLEY PROCESS)
Asphalt or Finley Process of construction
MARR, SHELL OR CRUSHED STONE, ROLLED WITH 10 TON ROLLER
NO SUBDRAINAGE NECESSARY FOR ROADBED

MACADAM WATERBOUND
CRUSHED STONE 1/2" - 3/4" SIZE
CRUSHED STONE 1" - 1 1/2" SIZE
BITUMINOUS MACADAM
CRUSHED STONE OR SLAG
BAND WITH 1/4" SCREENINGS
CRUSHED SLAG OR STONE 2" - 3" SIZE

MACADAM BITUMINOUS
BRICK ON NATURAL SAND
NATURAL SAND SUBGRADE
NO SUBDRAINAGE NECESSARY FOR ROADBED

BRICK OR MEDINA BLOCK ON CINDERS
BRICK OR MEDINA BLOCK
SAND CUSHION
SCREENED CINDERS OR SLAG

CONCRETE PLAIN
1:1/2:3 CONCRETE
1/2" HEARING SURFACE
1" CONCRETE BASE 1:3:6

CUT, FILL AND ROAD DRAINAGE
CINDERS TAMRED
AGRI. TILE, TAR PAPER OVER JOINTS

SIDE DRAINS
ROAD METAL STONE
DIMENSIONS SIMILAR TO THOSE ABOVE

CENTER DRAIN (NARROW ROADWAYS)

PREPARED BY A.D. TAYLOR LANDSCAPE ARCHITECT
House for Chester Lincoln, SAN MARINO, CALIFORNIA

H. ROY KELL
Architect

First floor

Second floor

BUILDING TYPES

ARCHITECTURAL RECORD combined
Above, the patio, equipped for outdoor living and dining. At left, stairhall looking through the living room to the porch. An outdoor stair leads directly from the second floor balcony to the patio.

MATERIALS AND EQUIPMENT

FOUNDATION
Concrete

EXTERIOR
Walls: Cement stucco, brick veneer over wood studs
Roof: Red cedar shingles
Insulation: Celotex 1/4"th, Celotex Corp.
Sash: Steel casements

INTERIOR
Walls: Wood studs and gypsum plaster; living room walls and trim, Philippine mahogany
Floors: Oak
Trim: White pine painted

EQUIPMENT
Heating: Hot-air furnaces
Electrical installation: Conduit and galvanite wire
Actual cost, 36c per cubic foot; Architect estimates present cost at 42-44c
House for J. E. French, PALM SPRINGS, CALIFORNIA

CHARLES O. MATCHAI
Architect

MATERIALS AND EQUIPMENT

FOUNDATION
Concrete

STRUCTURE
Wood frame

EXTERIOR
Walls: Gardien, hollow cement tile, Palm Springs Build
Supply Co.
Roof: Tile, Gladding, McBean & Co.
Seas: Steel, Tuschin Steel Co.; ornate, wood louver;
Shutter Awning Co.
Insulation: Coast Insulating Co.
Doors: Garage, Overhead Door Co. of Southern Cal
ifornia

INTERIOR
Walls: Plaster board lath, U. S. Gypsum Company; th
Pomona Tile Co.; vertical boards in living room
Ceilings: Exposed rafters, plaster between, in living roo
plaster elsewhere

EQUIPMENT
Heating and ventilating: Gas, forced air, Payne Furnace
Supply Co., gas hot water heater, General Wa
Heater Co.
Glass: Carrara, Pittsburgh Plate Glass Co.
Electrical installation: Lighting fixtures, Solar Light
Fixture Co.
Linoleum: Armstrong Cork Co.

Cost, including garden walls, garage and serva
quarters over garage: $18,000

First floor and partial plot plan

BUILDING TYPES

ARCHITECTURAL RECORD combined v
Garage seen in photo on opposite page also contains servants' quarters. Above, patio; below, left, dining bay; right, bedroom interior.
HARWELL HAMILTON HARR
Design

The large windows shown in plan, and the use of flagstone within doors, serve to tie the house to the surroundings. Yet privacy from the highway is maintained, as can be seen above. The house crowns a hilltop; the living room’s south bay overlooks a wide valley. The "garden house" contains guest accommodations, and is secluded behind planting.

At left, first floor and plot plan; above, second floor plan
changed ceiling levels and ranges from carpet to flagstones on the floor divide the spaces, rather than partitions. Note the use of cove lighting in the dining area (top). At right, fireplace end of the general living space.
Top: the music room also serves as a stage. Its floor is slightly raised; the French door drapes can be drawn, or the doors opened so that the patio beyond forms the setting. Photo below also shows the south living room bay.

MATERIALS AND EQUIPMENT

FOUNDATION
Concrete

EXTERIOR
Walls: 12" redwood vertical boards and battens
Roof: Redwood shingles 4½" to the weather
Insulation: Celotex Corporation
Sash: Outswinging wood casement

INTERIOR
Walls: 10" T. & G. vertical redwood board walls, natural finish
Ceilings: "Celotex", Celotex Corporation
Floors: 4" T. & G. Douglas fir

EQUIPMENT

Heating and air conditioning: "Thermador" electric radiant and convection heaters; "Thermador" electric water heater, Thermador Electrical Mfg. Co.
Kitchen: Refrigerator; electric range; water softener; washing machine; ironer
Electrical installation: Custom built radio and record playing system; lighting, integral reflector troughs and panels

Cost, including guest cottage, planting, etc., $15,000
For a sloping lot, all living areas are here
located on the top floor, most of the base-
ment being used for recreation areas.

MATERIALS AND EQUIPMENT

FOUNDATION
Concrete

EXTERIOR
Siding: Beveled 3/4" x 10" cedar siding.
F: 1/8" Certigrade cedar shingles left natural
Finish: Celotex lath on ceilings. Celotex Corpora-
tion.
Exterior: Wood

INTERIOR
Siding: Blue Diamond plaster on wood lath and studs.
Floors: Oak in living portion; tile in both; linoleum
Kitchen, Armstrong Cork Products Co.
Finish: Fir, painted

PLUMBING
Plumbing and air conditioning: Rossco
Fixtures: Pipe, galvanized iron; fixtures, Standard
Sanitary Mfg. Co.

HEATING
Range: refrigerator; provision for dish-
washer.

ILUMINATION
Illumination of grounds; firehose for
emergency use.

Heating and wiring: Knob and tube system
Cost: 29¢ per cubic foot
House for J. O. Heppes, HINSDALE, ILLINOIS

CHILDs and SMITH
Architects

First floor

Second floor

MATERIALS AND EQUIPMENT

FOUNDATION
Plain concrete

STRUCTURE
Wood studs and wood roof framing

EXTERIOR
Walls: Wide wood siding and common brick veneer, first floor
Sash: Wood
Roof: Asphalt shingles
Painting: Wood siding and frames, three coats lead and oil paint; common brick, first floor and chimneys, three coats Bondex, The Reardon Co.

INTERIOR
Floors: First floor hall, dining room, kitchen, dining alcove, rear entry, library, rear baths, children's playroom, asphalt tile, The Tile-Tex Co.; family room, straight-sawed red oak
Trim: Enameled wood; study, straight-sawed white oak finished with two coats of Minwax, The Minwax Co.
plaster; above, dining room; below, hall.

**METHOD**
- Walls and ceilings: three coats and oil paint; walls of living room, dining room, and bedrooms, painted white. Walls and ceilings of kitchen, bathroom, and lavatory above wainscot, plastered.
- Heating: Oil-fired warm-air furnace with duct system, General Electric Company.
- Fixtures: Kohler Co.
- Electrical Installation: Wiring and fixtures, Cox Electric Co.
- Furniture: Sargent & Company

**BUILDING TYPES**

**AMERICAN ARCHITECT and ARCHITECTURE**
House for Mrs. Fred J. Reynolds, GLENOCE, ILLINOIS

PERKINS, WHEELER and W
Architects

First floor

Second floor
At left, living terrace in the corner between dining and sun rooms; the screened porch awning roof is supported by the screen frames. Left, below, dining room.

MATERIALS AND EQUIPMENT

FOUNDATION
Continuous concrete walls and footings; waterproofing, A. C. Horn Co.

STRUCTURE
Wood frame

EXTERIOR
Walls: Hard burned select common brick; 1" x 8" cypress
Roof: Red cedar shingles, 5" to weather; Y. F. sheathing spaced 2"; flashing, gutters and leaders, 26 ga.
"Toncan", Republic Steel Corp.
Sash: Wood double hung and casement
Doors: White pine: garage, lift type, McKee Door Co.
Painting: Lead and oil

INTERIOR
Walls: ½" Rocklath, 3 coats gypsum plaster; painted and papered
Floors: Living room, bedrooms and halls, 25/32" clear red oak; kitchen, edge grain fir; baths, ceramic tile; baths 1 and 2, edge grain fir; bath 4 and lavatory; porches, concrete; kitchen, bath 4 and lavatory, linoleum, Armstrong Cork Products Co.
Trim: White maple in principal first floor rooms, poplar elsewhere; doors, "Redi" stock maple and birch, Paine Lumber Co.
Painting: Walls, lead and oil; kitchen and baths, enamel; ceilings, balsamite; floor, stained and varnished; trim (maple); clear lacquer, (poplar), flat paint

EQUIPMENT
Heating and air conditioning: Forced warm air filtered, oil fired system, Herman Nelson Corp.; hot water heater, Williams Oil-O-Matic Heating Corp.; thermostat, Minneapolis-Honeywell Regulator Co.
Plumbing: Fixtures, Kohler Co.; supply pipes, galvanized steel; sump pump in basement, Chicago Pump Co.
Weatherstrippings: Doors and windows, Chamberlain metal weatherstrips
Glass: Pittsburgh Plate Glass Co.; glass brick, Owens-Illinois Glass Co.
Hardware: Solid brass, Yale and Towne Manufacturing Co.

Cost including fees, excluding land, landscaping, furnishings: $24,300
House for Dr. H. A. Jarre, GROSSE POINTE FARMS, MICH.
HEWLETT and LUCKENBURY
Architects

Basement

First floor

Second floor

RECREATION
LAUN.
HEATING

D.R.
LR
K.
D.
S
G

BR.
BR.

BUILDING TYPES

ARCHITECTURAL RECORD combined
MATERIALS AND EQUIPMENT

FOUNDATION
Concrete block

STRUCTURE
Wood frame

EXTERIOR
Walls: Brick veneer
Roof: Wood shingle; "Toncan" sheet metal, Republic Steel Co.
Insulation: Side walls and second floor ceiling, rock wool, Johns Manville
Sash: Wood casement and copper screens
Painting: Exterior masonry, Medusa cement paint, Medusa Portland Cement Co.

INTERIOR
Floors: Oak strip finish; main hall, black asphalt tile; master bedroom, oak block; stair treads and nosings, sheet rubber; kitchen, linoleum
Painting: Main hall, light grey; study, turquoise blue; ceiling, off-white; kitchen walls, light grey, yellow ceiling; black floor in dining room. Pittsburgh "Wall-hide" for interior undercoat, Pittsburgh Plate Glass Co.; "Ripolin" enamel, The Glidden Company; "Minwax" floor finish, Minwax Co., Inc.

EQUIPMENT
Waterproofing: Asphalitic, exterior basement wall
Hardware: Dull chrome
Cost, house only: 37¢ per cu. ft.
House for Albert J. Scheu, ST. LOUIS COUNTY, MISSOURI

GRAY and PAUL
Architect

First floor

Basement
MATERIALS AND EQUIPMENT

FOUNDATION
Concrete walls

STRUCTURE
Reinforced concrete slab over entire first floor and garage; frame and veneer walls; wood roof framing

EXTERIOR
Walls: Brick, Hydraulic Press Brick Co.
Roof: Slate, weathering green; 16-oz. cold rolled copper sheet metal work
Insulation: Gimpco rock wool batts, General Insulation & Manufacturing Co.
Painting: 'Creo-Dipt' white brick paint, Creo-Dipt Co., Inc.

INTERIOR
Floors: Random width oak flooring on first floor; second floor, oak strip flooring. First floor, Wood Mosaic Co.; baths and lavatory, National Tile Co.
Trims: Poplar, enameled
Partitions: Wood with metal lath and plaster.
Lath, Northwestern Expanded Metal Lath Co.; plaster, Acme Cemented Products Co.
Doors: Overhead garage doors, McKee Door Co.

EQUIPMENT
Heating: AFACO warm-air system with Century oil burner, American Furnace Co.; hot-water heater, Williams Oil-O-Matic Corp.
Weatherstripping: Monarch Weatherstrip Co.
Cost, including fees: $41.9c per cubic foot
HOUSE for Hugh Akerman, ORLANDO, FLORIDA

This house lies between the road and Spring Lake; hence the principal living areas open toward the water view. Concrete block walls are exposed, indoors and out, and are painted. The color scheme is stucco and stucco sash being blue inside and out; yellow and white; roof, variegated reds; and floor planking, stained red-brown.

At left, first floor; above, second floor.
MATERIALS AND EQUIPMENT

FOUNDATION
Concrete

STRUCTURE
Concrete block and frame

EXTERIOR
Walls: Specially textured concrete block generally, 4" x 16" face showing, second story cypress boards and battens
Sash: Metal casements, screened, Hope's Window's Inc.
Roof: Wood frame; pastel red corrugated cement tile finish, Pittman-Sipple Tile Co.
Insulation: Roof, "Colotex", Colotex Corp.

INTERIOR
Floors: On fill, 8" concrete slab; suspended; wood frame
Walls: Concrete block exposed and painted; baths, tile and plaster; remainder; plank and plaster
Ceilings: First floor, exposed beams and floor planking
Stairs: Solid Y.P. logs, wrought iron rail

EQUIPMENT
Heating: Waterman Waterbury furnace; A. B. C. blower; Williams Oil-O-Matic burner; Minneapolis-Honeywell temperature controls; "Solar" hot-water heater, General Electric auxiliary
Plumbing: Copper piping; fixtures, Standard Sanitary Mfg. Co.
Hardware: Russell & Erwin Mfg. Co.
Cost, including fees: $15,500
Noteworthy in these plans are the location of maid's room, with a private exterior door and access through the garage directly to the front hall; and study-bedroom-bath grouping over the garage.
MATERIALS AND EQUIPMENT

FOUNDATION
Concrete footings, common brick walls, reinforced concrete floors.

STRUCTURE
Wood frame.

EXTERIOR

INTERIOR
Walls: Plaster on wood lath, U. S. Gypsum Co.
Floors: Bathrooms, kitchen and breakfast room, linoleum; Armstrong Cork Products Co.; bathroom bases and wainscots, structural glass; other floors, oak.

Trim: White pine
Painting: Trim, colored "Minwax," Minwax Co., Inc.

EQUIPMENT
Hardware: Russell & Erwin Mfg. Co.

Cost: $16,000
House for Marcellus McLaughlin, GERMANTOWN, PA.

RICHARD W. MECASKI
Architect

MATERIALS AND EQUIPMENT

FOUNDATION
Local stone

STRUCTURE
Local stone

EXTERIOR
Roof: Slate, varied thickness and color
Sash: Wood casement with leaded glass; built-in roll screens, Watson Screen Co.
Insulation: Rock wool 2" thick on all exterior walls, 4" over third floor ceiling and garage ceiling.
Painting: Stained and varnished with spindrift; all other inside woodwork painted.

INTERIOR
Floors: Living room, dining room, library and hall, random width oak, screwed and plugged;
bedrooms and hall, white oak T & G, 2"

Painting: Stained and waxed walnut pan library and stair spandrel; all other inside woodwork painted.

EQUIPMENT
Heating and air-conditioning: Air circle and humidification, Gar Wood oil furnace air-conditioning unit, Gar Wood Indus.

Plumbing: Copper tubing; fixtures, Crane Kitchen: Built-in kitchen range hood; water heater, "The Range Ventor", Universal Bid.

Electrical Installation: Phone system of intercommunication, Philco
Cost: approx. $2 per cubic foot

BUILDING TYPES

ARCHITECTURAL RECORD combined
First floor

Second floor

Library

Building Types
House for Dr. Louis E. Williams, MADISON, NEW JERSEY

PAUL W. DRA
Architect

This house includes a doctor's suite consisting of reception room, sitting room, office and examination room. The suite has a private entrance, adjacent to the house, yet subordinated to the front door. The first floor lavatory can serve either doctor's suite or owner's rooms.

MATERIALS AND EQUIPMENT

STRUCTURE
Frame and brick veneer

EXTERIOR
Roof: Black slate, "Genuine Hard Vein Bongor," North Bongor Slate Co.; copper gutters, leaders and Flashings
Sash: Double hung and casements, Andersen Corp.
Doors: Special and six panel Colonial, pine, painted; garage doors, overhead stock with Stanley hardware, The Stanley Works

INTERIOR
Walls: Plastered three coats over wire lath; main rooms papered; baths and kitchen, Franklin tiles; game room, cypress
Doors: Special and six panel Colonial, pine, painted
Trim: Special and Curtis stock

EQUIPMENT
Heating: Gas fired unit, Fox Furnace Co.; winter air-conditioned heat; Thermostat controls, Minneapolis-Honeywell Regulator Co.; gas hot-water heat
Plumbing: Fixtures, Kohler Co.; copper piping, American Brass Co.
Weatherstripping: Door and window metal
Electrical Installation: Fixtures, A. V. Hendrickson & Co.
Kitchen: Range, gas; refrigerator, era Electric Co.
Hardware: Colonial brass
Cost: 42c per cubic foot
view from the north, above, shows screening of the service entry from living portions of house. The small enclosed porch between the dining room and living porch is an auxiliary living area.
House for Mrs. Sonja S. Hohe, HARRISON, NEW YORK

JAMES JENNINGS BEV, Architect

Plot plan

Below, first floor; above, second floor
MATERIALS AND EQUIPMENT

FOUNDATION
Concrete footings and walls

STRUCTURE
Wood frame, brick veneer

EXTERIOR
Walls: Brick facing, painted; stucco at driveway
Sash: Steel casements, Lemco, Craft Steel Windows, Inc.
Roof: Tile, Ludowici-Celadon Co.
Insulation: Balsam-wool, Wood Conversion Co.

INTERIOR
Floors: Garage, cement; kitchen, Armstrong's linoleum; first floor hall, loggia, terraces, flagstone;
both, tile; remainder, hardwood

Walls: 2" x 4" studs and plaster; Jacobson ornament
Ceilings: Exposed oak beams in living room; plaster in remainder

EQUIPMENT
Heating: Boiler, Fitzgibbons Boiler Co., Inc.; radiation, American Radiator Co.; valves, Hoffman Specialty Co., Inc.
Hardware and lighting fixtures: Special, Charles Arcularius
Fireplaces: Dampers, H. W. Coyert Co.
Incinerator: Kerner Incinerator Co.
House for Edward Melnick
BROOKLINE, MASS.

SAMUEL GLASER
Architect

Plans: at left, first floor; above, second floor. Photos: top, garden elevation; center, detail front ent
There are many interesting points about this house. Indicated in the first floor plan: undercover access to garage through a secondary hall; maid's bath, also accessible as first floor lavatory; screen partition between dining and living areas. The built-in flower box in the living room is shown at the top of this page; lower photograph, view from dining into living areas, shows built-in china, linen and silver cupboards.
MATERIALS AND EQUIPMENT

FOUNDATION
Monolithic waterproof concrete

STRUCTURE
Wood frame

EXTERIOR
Walls: Hand rived cypress shingles
Insulation: Exterior walls and second-story ceiling completely enveloped in rock wool

INTERIOR
Walls: 2" by 4" stud, plastered
Floors: Oak

EQUIPMENT
Heating: Scott Newcomb air-conditioning system, Home Oil Co.
Electrical Installation: Fixtures, Portchester Lighting Fixture Corp.
Kitchen: Stainless steel sinks; metal cabinets, Bradley Kitchen Cabinet Co.; linoleum counter tops; electric range, Westinghouse Electric and Manufacturing Co.; domestic hot-water heater, Westinghouse Electric and Manufacturing Co.

Cost: $22,000

WALTER BRADNIEK ARCHITECTS