VOL. 97 . NO. 6

### ARCHITECTURAL

# RECORD

COMBINED WITH AMERICAN ARCHITECT AND ARCHITECTUR

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# FLUSH VALVES FOR SCHOOLS

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A RECENT survey among architects, widely experienced in school design, discloses a number of interesting trends in flush valve applications for schools.

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### THE RECORD REPORTS

### V-E Day and Building Restrictions • Findings of Data-Gathering Washington on Building Prospects • Postwar Probabilities • Public Works Planning Loans Available

**F** EDERAL eyes turn more and more to the construction industry as the nation's economy rounds the V-E Day corner and starts down the road of reconversion. High quarters recognize the industry as a major key to maintaining employment and providing an adjustable stimulus to business generally. The war agencies have it in mind in relaxing their controls over materials, the peacetime offices of the federal government are readying plans to assist, and the committees of the Congress are assembling data and projecting broad blueprints.

Any pickup in construction, however, is expected to come first in the field of maintenance and repairs. With the lumber situation growing more instead of less critical, elimination of controls will help little on new building. Note, nonetheless, that War Mobilization and Reconversion Director Vinson expects at least 250,000 homes and apartments to be built during the next 12 months and possibly as many as 400,000.

### **Building Restrictions**

Restrictions on home building are not scheduled to end entirely until materials and manpower become generally available, which may mean for some time after Japan is defeated. The War Production Board's permission for delivery after July 1 of steel, copper and aluminum without CMP allotments does not mean that, even in the case of these commodities, orders which are placed will be filled. Orders will be filled only where delivery can be made without interference with authorized CMP orders. The program for a simplified priority system and orderly elimination of the Controlled Materials Plan will do little to disturb present priorities, which are expected to remain in effect for the rest of the year.

But WPB has modified and will continue to modify its controls. Even as V-E Day arrived it made special arrangement to meet construction needs for reconversion. It is approving applications for projects not interfering with the war effort and necessary to ready civilian production. Applications are subject to these qualifications: they must cover relatively minor additions or alterations, must be not more than actually needed, must not constitute replacements, and the product to be manufactured must be needed for the civilian economy.

Another point to be noted in the WPB picture is that its inventory curbs may be applied unevenly. While in general the agency will be firm in putting the lid on purchases, in many fields such as building materials, it wants to accumulate stocks in the hands of distributors so that the industry will not run into unexpected bottlenecks when it does get going.

### **Preparatory Data**

An indication of Washington concern over prospects for the construction industry is the array of data and suggestions it is gathering. Its idea factories are busy both producing and collecting plans. Out of these will be culled much that will influence every phase of building activity in the years immediately ahead. Fine-combing of the findings brings to light the following:

1. With the large backlog of accumulated demand, the total new housing units needed will roughly double the highest annual rate of the best prewar year. There is a similar accumulation of demand in commercial and industrial fields and in other types of private construction.

2. Among government planning aims is more construction at less cost—for instance, houses at \$3,000.

3. Means to check an inflationary trend in housing prices are under study.

4. Next to housing, building of the "social overhead" such as highways, schools, hospitals, etc., appears to offer a promising field.

5. New private industrial construction opportunities include plants for production of consumer and durable goods; deep-freeze food storage plants and lockers; stockyards and packing house facilities; warehouses, grain elevators, mining structures, railroad terminals, bridges; oil pipe lines, pumping stations and refineries; civilian airports, public utility plants, stores, hotels, and office buildings.

### **Rental Housing**

6. Wartime experience may bring the building industry increasingly into rental housing and lower-priced housing.

7. NHA is considering a plan of guaranteeing a minimum return to large institutions investing in rental housing over a long term, which might produce a volume of sound housing at lower rentals than have previously been generally available.

(Continued on page 10)



"The trouble now is they like their Bailey bridge . . ." —Drawn for the RECORD by Alan Dunn

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### A REPORT on the PERFORMANCE of WOOD FINISHES "Splendid Satisfaction . . . Minimum Upkeep"



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BIATE DARE OHIGAGO April 9, 1945

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9

8. Local governments and communities must take primary responsibility for planning and programming of houses in tune with best practice and long-range interests. Communities must be encouraged to look fully into their housing supply, needs and markets.

9. However, states and counties are not yet ready for large public works construction. Their planning needs stimulation. While some programs are in the design stage, twice that amount is in the preliminary stage and three times as much is still in the idea stage.

#### **Construction Survey**

10. A community construction program survey now is being carried out under the Committee for Economic Development, utilizing the services of local contractors, public officials, bankers, trade unions and professional and business groups associated with the construction industry locally.

11. Emphasis falls on getting preliminaries to construction out of the way now, including such preliminaries as engineering surveys, site acquisition, blueprints, specifications, legal clearances, preparation of contract documents. These preliminaries may require from several months up to a year or two, and could hold back construction activity sizably.

12. Needed federal government stimulus to construction, key men of the industry are telling Congress, includes gradual lifting of WPB limits, incentive for materials and equipment dealers to stock up and for new dealers to get started, releasing of tools to manufacture construction equipment, canceling taxes on cost of private construction plans, and more funds for loans to plan public works.

### **Postwar Probabilities**

A long look at the probabilities in postwar construction is given in a detailed study by the Division of Construction and Public Employment in the Department of Labor. Annual volume of projects foreseen approaches \$11 billion, with, perhaps, \$4.5 billion in last year of war against Japan Largest single element will be nonfarm residential building with about 900,000 new dwelling units per year. Modernization will be important in industrial building. First public works probably will be highways and streets.

Postwar construction will resemble closely prewar structures of the same field, the Division finds. Design and construction will change little, although some experimental or pioneering operations will influence designers. No "miracle houses" are looked for. This is true also of functional requirements, except that changes in details of design, such as for customer circulation in stores, may occur. Market studies, however, indicate probable demand among home buyers for more space than provided in wartime houses.

Among other findings:

Off-site fabrication of processed materials into panels for floors, walls, etc., which was limited prior to the war, has grown tremendously and numerous firms have concrete plans for postwar operation. Off-site processing of materials, including assembly, may grow also. Cited in this connection are

(Continued on page 12)



One of the Nissen-type hut colonies erected by American GI's for homeless Londoners

#### GI JOE HELPING TO HOUSE LONDONERS

An interesting sidelight on Britain's current rehousing program is the fact that GI Joe is helping with it. American soldiers in greater London are erecting Nissen type huts, made of corrugated asbestos instead of iron, to rehouse some of the 500,000 bombedout Londoners.

Ten thousand of the Nissen huts have been put at the disposal of the Ministry of Works, and 3000 of them already have been erected. The GI's are responsible for more than 330 of them in the Lambeth section of Greater London. At the corner of Loughborough Road and Minnet Road, Lambeth, they have erected a circle of 14 huts, handsomely christened Loughborough Gardens. Concrete paths join the huts, and trees grow on and around the site.

The fronts and sides of the Nissens are prefabricated, the ends bricked in. Each has two bedrooms, 9 by 10 ft.



Two GI's bricking in the end of a hut

in size, a combined living and dining room, 10 by 12 ft., and a 9 by 12 ft. kitchenette. There is a gas stove, a brick fireplace, electricity and water.

More than 4,530,000 houses in the British Isles were destroyed or damaged by enemy bombing before the rocket bombing began—over one-fourth of all the houses standing in 1939. In Greater London alone, a total of 107,-000 have been demolished, and 170,000

(Continued on page 140)



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### THE RECORD REPORTS

(Continued from page 10)

the manufacture of shower stalls, factory fitting of doors, and factory finishing of wood flooring.

### **Nature of First Houses**

Major expansion in construction will come first in "moderately high-priced" group of houses ranging from \$7,000 to \$10,000, and in the smaller field of higher-priced houses up to \$25,000. These will permit more extensive use of mechanical equipment and of the more expensive newer materials than the cheaper houses, such as improved heating and plumbing, electrical installation, etc. Competition for the early market is apt to be based mainly on design, finish and equipment rather than price.

An increasing role will be played by projects of 25-50 dwelling units or up.

Tendencies in commercial building will include "supermarkets" for food stores, suburban branches for department stores, "drive-in" establishments, installation of escalators and of air conditioning, modernization of lighting, new store fronts and entrances.

Geographical shifts are due in some industries, such as expansion of paper and wood pulp industries in South and, possibly, aluminum in the Northwest.

Religious structures and hospitals are expected in good volume.

Ultimately a rapid increase is foreseen for slum-clearance by local housing authorities.

### Prefabrication

The relation of prefabrication to the anticipated large volume of residential building construction is scrutinized in a report submitted to the Senate by a subcommittee on wartime technological developments. The report is in reality a monograph prepared by the Bureau of Labor Statistics for the subcommittee.

Belief is that while prefabrication will be used more than before the war, the industry is as yet too small and marketing methods too undeveloped to permit more than a small proportion of early postwar work to be handled by this technique. Prefabrication systems have been adopted for application to local lumber yards.

Most of the wartime prefabrication work has been confined to panels for houses not differing radically in construction from the conventional prewar types, and most of the immediate postwar operations are likely to be similar. Such houses will probably find more ready acceptance than those embodying radically new features.

(Continued on page 14)

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### THE RECORD REPORTS

(Continued from page 12)

It is assumed that in general prefabrication will not bring about any immediate or revolutionary changes in the appearance of the low-cost housing to which it will be chiefly applied.

Note is made of the probability of an increase in production of packaged units for heating, bathroom, stairways, windows and the like.

### **New Materials**

Probable use of new materials in postwar houses is pointed to by the Bureau. Metals may now be bonded to wood or glass and glass to wood or plastics. Plastics may be used for interior fixtures and plastic sheets may be veneered on plywood or ply to hard board or asbestos panels for wall finishings. Structural glass can be used in small houses at low cost. Processed wall boards will be used as insulation, as plaster substitutes, or as sheathing.

Plywood and other types of treated wood may be variously employed. Plywood has been found satisfactory, for instance, in prefabricated sections for structural beams and supports of large buildings, and is being considered by mail-order houses for prefabricated grain bins, chicken houses and sheds.

### **Airport System**

The program for a national system of airports is nearing form in the Congress. Pending legislation would provide federal aid for 3,000 new airports and for improvements of some 1,600 existing airports, at an annual cost of \$100 million to be matched by a similar amount on the part of state and local agencies. Funds would be provided also for preliminary planning and surveys so as to be ready for actual construction even before the technical end of the war. Emphasized as an important and related part of this picture is the probable growth about the airports of service industries, which will afford opportunity for additional construction.

Congressional consideration is based on a National Airport Plan drawn up by the Civil Aeronautics Administration last year. This plan is reproduced in full in the 120-page House Document Number 807 of the 78th Congress. It includes a detailed breakdown of projected airport locations by states and by cities within each state. In New York State, for example, 251 airports are set forth.

### **Hospital Center**

AR-P-R

Congress is moving to establish a new hospital center in Washington, D. C. The legislation to this end would (Continued on page 16)

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### THE RECORD REPORTS

#### (Continued from page 14)

provide modern facilities with a maximum capacity of 1500 beds. Facilities would include those for diagnosis and treatment. As planned, the setup is unusual in that the funds provided by Congress would be turned over to a private corporation, known as the Washington Hospital Corporation. Selection of the hospital site must meet approval of the National Park and Planning Commission, and the Federal Works Administration, upon termination of the war, is to acquire the site and to provide the buildings. Participating hospitals are to assume responsibility for one-third of the initial cost.

#### **Planning Public Works**

The Congress has taken other action in the field of construction. It has finally settled on an appropriation of \$17,500,000 to assist states and their subdivisions in advance planning for public works. This was a compromise between the House figure of \$5 million and the Senate figure of \$5 million. It also has hurried through an authorization of \$12 million for emergency flood control, and authorized use of unexpended balances for loans and grants to farmers as well as necessary priorities to rebuild lost or damaged buildings.

In regard to the \$17,500,000 to aid in public works planning, the FWA explains that any non-federal public agency may apply for an advance to prepare drawings and specifications for work which it expects to construct within three years after the war. Besides state governments, FWA mentions cities, towns, townships, counties, school districts, water and sewer districts and other local units.

#### + + +

### TAX PROGRAM URGED

A seven-point postwar tax program to protect home ownership and to stimulate building enterprise has been proposed by the National Association of Real Estate Boards. Basic principles of the program are: redistribution of the tax load to relieve pressure at breakdown points, with limits on the extent to which local and state taxes may be superimposed upon real estate; limits upon the unchecked federal power of taxation upon all sources of income; fairer apportionment of state taxes for the support of municipal governments; trimming of federal tax demands on real estate owners in recognition of the unique burden borne by this class of taxpayers in paying the bulk of local government costs.

(Continued on page 20)



In this attractive Domestic Science Room of the J. W. Sexton High School in Lansing, Michigan, Nairn Linoleum is usea on floor, borders and base, as well as on work surfaces and window ledges. The walls, also, are Nairn Wall Linoleum.

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Left to right: M. M. Gousev, president, Amtorg Trading Corp.; Harvey Wiley Corbett; E. C. Ropes, chief of Russian unit, U. S. Department of Commerce; Peter Novojilov, assistant chief, Industrial Installations, Soviet Purchasing Commission



Mechanical Systems Panel. Seated: B. S. Romanov and I. A. Bulavin, engineers, S.P.C.; Vincent T. Manas, FPHA (chairman); B. N. Aleksandrov, engineer, S.P.C.; Miss Brondz, interpreter. Standing: George Hoffman; A. C. Bredahl; Robert Thulman, FHA; L. I. Smirnov and A. I. Vashchinin, engineers, S.P.C.



Prefabrication Panel. Seated: V. A. Myslin, architect, S.P.C.; Miss Orlova, interpreter; S. N. Dobrynin and P. N. Ershov, engineers, S.P.C.; Morris B. Sanders (chairman). Standing, first row: Clarence Farrier; Howard Vermilya; Gordon Lorimer; Marcelle Breuer; Tyler Stewart Rogers. Standing, second row: Eugene Clute; Henry Wright; Robert McLaughlin; Robert Davison; Jose Sert; Corwin Wilson

#### AMERICAN-SOVIET BUILDING CONFERENCE

Under the auspices of the Architects Committee of the National Council of American-Soviet Friendship, and under the guidance of committee chairman Harvey Wiley Corbett, an American-Soviet Building Conference was held in New York on May 4-5. The purpose: "To initiate an exchange of building information between the two countries; to apprise American architects, engineers and producers of the trade requirements in the Soviet building field; to acquaint visiting Soviet specialists with American building developments relevant to Soviet reconstruction needs; to create understanding and friendship between professional men in the building field in this country and Russia."

Kernel of the conference was the series of four all-day panel discussions between American and Russian authorities (see photos at left and below). The conference opened with a dinner at which the speakers were M. M. Gousev, president of the Amtorg Trading Corporation; NHA Administrator John B. Blandford, Jr.; E. C. Ropes, chief of the Russian Unit of the U. S. Department of Commerce; and Thomas S. Holden, president of F. W. Dodge Corporation.

(Continued on page 128)



Building Industry Organization Panel. Seated: Max H. Foley; André Fouilhoux (chairman); Dr. B. G. Skramtaiev, director, Central Institute of Building Industry Research of the Soviet Union. Standing: Elwyn E. Seelye; William Joshua Barney; Jack Squires; C. Theodore Larson

Industrial Buildings Panel. Seated: Peter Novojilov; A. I. Alikhanov, engineer, S.P.C.; Roland A. Wank (chairman); V. I. Bogomolov, architect, S.P.C.; G. B. Panero. Standing: Simon Breines; Serge Chermayeff; J. P. H. Perry; N. P. Remizov, engineer, S.P.C.; C. P. Stolberg





### A LOOK INTO THE FUTURE OF DECORATIVE PLASTICS!

Most architects who have used Formica, and therefore have had personal experience with it, see a large future for the material in afterthe-war building.

They see a big expansion of its use in many of the applications in which it has already a record of many years of success. They are preparing to specify it for much used doors, such as those on train, bus and air terminals, counter paneling and counter tops, column covering, wainscot, toilet stalls, shelving and many others.

You will find it in excellent condition, looking

almost as it did the day it was installed for these purposes, in some of the most prominent public buildings in the country.

Formica is harder than marble and very durable under wear. It is non-porous and stain proof. It is available in a completely cigaretteproof grade for horizontal surfaces. There is a wide range of modern colors, patterns and "Realwoods" in which an actual veneer is introduced into the plastic sheet.

It resists all the various disasters that used to require frequent refinishing of surfaces. It is almost completely upkeep-free.

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### FOR BETTER BUILDING



Plan of display space terminating in service and demonstration facilities

### "MODERNEERING"

Architect Richard M. Bennett, well known store modernization consultant and professor of design in the Department of Architecture at Yale University, has been retained by Landers, Frary & Clark, manufacturers of Universal appliances, to create the basic plans of a complete store planning program under the copyrighted title "Moderneering," and to coordinate the recommendations and specifications of cooperating manufacturers who are participating in the program. Dr. O. P. Robinson, New York University School of Retailing, is also associated with the plan board in producing this flexible guide to store planning.

"The purpose of Moderneering," Prof. Bennett explains, "is to put forward-planning on a practical basis by giving every retailer something specific to work with, and to encourage him to make a start toward modernizing his present-day store. I recommend that local architects or building contractors should be engaged to relate the principles of Moderneering to specific store requirements . . .

Store materials manufacturers coop-

erating with Universal in the development of the program are: Pittsburgh Plate Glass Co.; Congoleum Nairn; The Celotex Corp.; Sylvania Electric Products Inc.; the W. C. Heller Co.; the American Store Equipment Corp.; Devoe & Raynolds Co., Inc.; National Electric Sign Ass'n.; and the Carrier Corp.

### SOUNDPROOFING OFFICES

The degree to which it will be possible to minimize distracting noise in the postwar office is demonstrated by an experimental installation of Fiberglas sound and vibration absorbing materials in the tabulating machine room of Owens-Corning Fiberglas Corp.'s general offices at Toledo, Ohio.

Normal conversation and the use of telephones in the areas where the machines are in operation are permitted, company officials report, because of the high percentage of noise absorption attained. As a result, company engineers believe that similar acoustical treatment will eliminate the necessity of isolating tabulating rooms and their complex, constantly-operated machinery from the rest of the office.

The interior surface of the walls and ceiling of the room is 1/8-in.-thick hardboard nailed on wood studs. The board is perforated with small, inconspicuous holes. Behind the perforated hardboard, and between the studs, is a 3-in.thick sheet of glass fibers, bonded and compressed to a density of 3.25 lb. per cu. ft., and faced with a wafer-like mat of bonded glass fibers 10 mils thick.

Sound waves pass through the perforated hardboard and are absorbed by the bonded glass fibers, resulting in a



noise reduction factor estimated at 85 to 90 per cent. That is, when sound waves strike the walls and ceiling, only 10 to 15 per cent of their energy is reflected into the room. A further reduction in noise is achieved by placing mounts to isolate vibration under the legs of the machine. These reduce the transmission of vibration to the floor.



Proposed 18-story all-welded hospital

### HOSPITAL **CONSTRUCTION NOTES All-Welded Hospital**

What is believed to be the first allwelded hospital building in the country, according to officials of the Lincoln Electric Co., Cleveland, will be the 18-story Kahler Hospital to be erected at Rochester, Minn.

The framework of the new unit, it is proposed, will be designed as a continuous structure of beams and their connecting members, welding details of which are based on past analysis and conform to general engineering acceptance.

The hospital will cover an area of 150 by 270 ft., and will be built of welded steel with concrete floor slabs. Ellerbe and Co., St. Paul, Minn., are the architects.

### **Prefabricated Hospitals**

Prefabricated housing, furnished by the Supply Division, Office of the Chief of Engineers, in packaged form, is supplying hospital space for a large portion of the Americans wounded in Southwest Pacific operations. Originally designed as barracks, these units lend themselves perfectly to hospital purposes, the War Department reports, each barracks becoming a ward.

The standard designs, as developed by the Engineer Board at Fort Belvoir, are grouped in three classes-metal, precut and wood. There are two types of each design, tropical and insulated. The tropical design embodies such features as continuous windows, ventilators at the base of the sidewalls and eave overhang to carry off tropical rains. The insulated type, for colder climates, has a minimum of windows,

(Continued on page 24)







Fifteen years of actual use ... highly successful use ... have clearly demonstrated the merits of aluminum windows. In a number of large cities they are the standard window specified for all new school construction. The manufacturers of aluminum windows offer you a selection of types and styles that should meet any need your plans call for. The Aluminum Window Manufacturers Association has established standard specifications for these windows. To get their literature and the new 1945 specification book, write ALUMINUM COMPANY OF AMERICA, 1867 Gulf Building, Pittsburgh 19, Penna.

\*Milo H. Stuart Memorial Building, Arsenal Technical Schools, Indianapolis, Indiana, Pierre & Wright, designing architects. A. A. Bohlen & Sons, supervising architects.

ALCOA



### Penetrating Seal-O-San locks out dirt Seals germ-packed cracks and crevices

IN these days of manpower and material shortages, the architect who specifies Penetrating Seal-O-San for school floors wins the gratitude of everyone charged with efficient school management.

For here is a floor finish that has proved in more than 5000 schools that it doesn't break down. And with its longer wear comes easier and inexpensive maintenance, for a floor protected with a Seal-O-San finish stays clean.

Penetrating deep, Seal-O-San becomes part of the wood . . . leaves no surface film to chip or crack. Sealing the cells, it forms a protective finish that actually *reinforces* surface fibres. As a result, the rugged, durable seal offers protection not only against scraping feet but also



against the damaging effect of ink, chemicals, or water.

Moreover, the tougher Seal-O-San finish keeps dirt from piercing the surface and getting a foothold. It puts an end to hidden crevices that harbor germs or dirt. That's why a Seal-O-San floor stays clean longer ... why maintenance becomes simple and inexpensive.

Seal-O-San leaves a beautiful, softlustre, natural finish—as smooth and polished as a fine piece of furniture. And the ease of application—with lambswool mop — brings worthwhile labor savings.

Your insistence on *beauty*, *longer wear*, and *simple maintenance* for school floors will inevitably lead you to Seal-O-San. Why not write for specifications and complete details—*today*.

### THE HUNTINGTON CLABORATORIES INC



### FOR BETTER BUILDING

### (Continued from page 22)

gable or ridge ventilators and an interior lining of insulation.

Basic designs specified a building 20 by 48 ft., to be extended if necessary, to any length up to 120 ft. This was accomplished by packaging separately complete parts of a building to form an 8 by 20 ft. unit which could be inserted between the ends of basic buildings. These separate units, when required, also contain windows for both sides of the building or doors, when an exit is necessary.



New hospital has flameproofed wood roof

### Flameproofed Wood for Safety

Masonry and tile up to the ceiling level, and flameproofed wood above the rafter line make the new Mercy Hospital addition at Rockville Center, L. I., fire resistant throughout.

Minalith-flameproofed wood is used for the joists, rafters, braces and furring strips in the roof construction, over 115,000 ft. of southern pine having been treated in American Lumber & Treating Co.'s Port Newark, N. J., plant for the purpose. Joseph Gunther of Valley Stream, L. I., designed the building; B. E. Langard of New York was consulting engineer. Basic specifications were drawn by the Public Buildings Administration, Emergency Operations Unit. The hospital is a private one, owned by the Catholic Church.

### SENSITIZED PLYWOOD

Photographically sensitized plywood is now used by Boeing Aircraft Co. in its design and tooling program. Plywood templates are reproduced with a huge photo template camera by projecting glass plate negatives, previously made by photographing master layout drawings.

Both interior and exterior (waterproof) types of plywoods from  $\frac{1}{8}$  in. to 2 in. in thickness are used for wiring boards, templates, form blocks, instruction boards, display photographs, etc. Douglas fir and maple plywoods are (Continued on page 26) Clients will thank you for this new kind of bathroom...



Case "Twin-Duty" bathrooms provide the perfect answer to the popular demand that every square foot be made to *count*.

Through ingenious layouts of two compartments, the customary space is made to serve two people at the same time, with full privacy for each.

Featured prominently in "Savefor-a-Home" displays at leading Savings Banks, these bathrooms have already drawn wide praise for the "Twin-Duty" idea from many sources.

From our book of sketches comes this practical and compact design. One compartment has a tub, the other a water closet, while each has its own lavatory. Entrances from the hall and master bedroom, and inter-communicating door. Piping is all in one location.

W. A. Case & Son Mfg. Co. Buffalo 3, N.Y. Founded 1853. Style with

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Simplicity, Planning, Savings

### PLANNED FORM WORK BY RICHMOND ALSO SPEEDS CONCRETE CONSTRUCTION



Richmond's Form Tying Devices are based on a simple principle consisting of the use of a Helix coil resistance welded to high strength wire struts to act as a threaded socket for Richmond coarse thread Tylag bolts. In action the high strength wire and Helix coil develop the full strength of the Tylag Bolt which by reason of its simple construction and coarse thread (3½ to 6 lag threads per inch as against 7 to 12 machine threads per inch) can be reused indefinitely with no depreciation.



**Simplicity:** Coarse thread principle provides for ease of installation, durability of accessory parts for continuous reuse without damage and permits for convenient use of the Tyscru for the many reanchorage requirements incidental to form and scaffold requirements.



**Planning:** Richmond offers – consultation on best types of forms and ties to be used for a given job; estimates on job requirements and recommendations on specific form problems. All of this is without obligation. Richmond's method of packing and shipping is a distinct service in itself.

Savings: Savings are further assured because Richmond reusable Accessory devices; known as "Working Parts," are furnished RETURNABLE FOR FULL CREDIT -no rentals charged.

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Form-Ty Engineering Guide on Request



### FOR BETTER BUILDING

### (Continued from page 24)

used most commonly, and are sensitized with a liquid-type photographic emulsion directly on either the unpainted or painted surfaces of the wood. A preliminary coat of white paint improves the contrast and makes reading easier.



Manually operated air supply register

### HEATING

### Air Outlet

A new air outlet for use with domestic forced warm air heating systems, the Vol-U-Trol Register, is a manually operated air supply register designed to provide a wide range of easily adjustable diffusion settings, and control of the air supply volume at the register, together with a manual shutoff.

According to the manufacturers, the new register offers several advantages: the curved extension front, together with the individually adjustable diffusion vanes, permits adjustment so that any shape of room can be easily blanketed with air regardless of register location; the need for balancing dampers in the duct work has been completely eliminated by an operating lever projecting through the center of the register to change the amount of opening of the volume control blades, thus placing control of the air supply volume at the register; an adjustable lock is mounted so that the register can be closed by means of the operating lever and then be reopened to the previously determined point without further adjustment; and turning vanes are pro-vided to insure even distribution of air over the register face.

Plans to market the Vol-U-Trol Register through the manufacturing company's regular distribution channels are completed, but held pending until the war is over or until materials are made available by the government. Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8.

(Continued on page 124)

### School for Democracy

◆ The future of democracy lies in its schools! Not only because the school produces a literate citizenry, but because it is here that democracy is experienced. The free schools of America are the meeting ground of all races, creeds and colors, where all citizens have equal rights and privileges irrespective of financial, social, religious or other status. Mutual respect for others as individuals, as persons, as fellow human beings—which is the underlying principle of true democracy—can be developed in the public school as in no other institution. Supported by all, open to all, it is the very heart of democracy.

• Democracy itself is therefore a major responsibility of the educators and school administrators. Theirs is the task of producing an intelligent, healthy, trained, responsible, tolerant, understanding electorate. Every possible aid must be given them to facilitate and implement their basic task. And the school building, plant and grounds are not the least of these. Excepting only the competent, inspiring, and well-paid teaching staff, the school plant is the most important element. It is the environment and the tool for their most effective work.

◆ But there is a growing realization that the value of the school to the community, to the nation and to democracy itself is not, and should not be, limited merely to the activities of the children and youth of the country. The school should and can be the center of community life. Education is a continuing process "from cradle to the grave." The use of the school should not stop with adolescence, nor should it be a nine-to-three affair. The cultural and recreational life of the community can and should be centered in the school and its benefits enjoyed fourteen hours a day—winter, summer, spring and fall. The community's investment in the school plant is best justified by the intensity of the use of its facilities.

◆ So schools today are being planned wisely for maximum all-day and evening use. School boards and citizens alike are realizing the possibilities of using to the utmost the auditorium, the gymnasium, the pool, the library, the shops and the classrooms. Architects are so planning and arranging the facilities that they can be made available to the public, and unused portions closed off temporarily. Lectures, forums, debates, rallies, dramatics, musicals, dances, sports, games, group meetings, hobbies, adult studies—all, and more, are, or can be, provided for in the modern community school. The facilities can be used without either additional capital investment or conflict with the teaching program.

• The school no longer can be thought of as a nine-to-three repository for children—nor the school tax in terms of a minimum expenditure for teaching the three R's. The modern community school is the cultural, recreational and social center for the neighborhood, young and old, rich and poor. As such, it is the bulwark of American Democracy. Let architecture function to this end—and the design express this ideal!

Aluneth Stong

### NEIGHBORHOOD SCHOOLS

This is the second time within two years that Architectural Record has engaged in editorial collaboration with The Nation's Schools on the all-important subject of new school planning for neighborhood use. Encouraged by the previous result, the two publications are again placing before architects and school men an interchange of opinions and useful information.



Architectural Record's Building Types Study Number 102 in collaboration with The Nation's Schools

### WHAT EDUCATORS DESIRE

### By Ernest O. Melby, President, Montana State University

By "school" in the title of this article we mean an institution and an organization designed to facilitate neighborhood education. This school will not attempt to house or to carry on all the educational activities of a community. It will carry on those educational activities which it can provide more efficiently than they can be provided by other agencies in the community. A large share of its space will be given over to the education of children, but by no means all of it, for this school plant will serve as a headquarters for adult education as well as for the education of children. This school building will house its own education activities, but it will also provide space for the educational activities that can be conducted by other community agencies. It will provide space, also, for the direction of the total educational program of the community. It is the community's educational nerve center.

We now have a setting in which we can proceed to define the ideal neighborhood or community. It is a group of people living together in such ways as to promote the constant growth and development of all members of the community regardless of age. In the same way as a home exists for the children, it exists for the parents. In the same way as a home is an environment for the children and their parents, the neighborhood is an environment for all who live in it. A good neighborhood, therefore, educates all its members. When the good neighborhood sets out to develop its neighborhood educational program it must, accordingly, provide an organization and facilities for the education of all its members.

Often we have thought of adult education as a compensation for lack of educational opportunities in childhood and youth or as a means of saving democratic institutions by furthering an informed citizenry. It may and should do all of these things, but our biggest reason for carrying on adult education lies in the fact that without it we cannot educate the children effectively, and we cannot attain the ideal of a neighborhood which constantly seeks the improvement of its life.

The modern neighborhood educational program is thoroughly grounded in the principles of American democracy. It is based upon the conceptions of the worth and dignity of all human beings. It looks upon the good life as being one which is good for all human beings. It is a life for people, not for schools or teachers or other institutions or functionaries. It is a life of plural goods, a life which ministers to the many-sided nature of the human organism. This means that the program of the neighborhood school must include a great deal of music, of art, of literature, of recreation and wholesome social living.

The ongoing life of the community becomes one of the greatest sources of materials for a neighborhood school. Since the school seeks the constant improvement of the life of the neighborhood, it becomes doubly important that those who live in the community become aware of the nature of the community and its needs. The neighborhood should constantly be studied as it is in terms of what it may become. Examples for such continuing studies will be found in neighborhood housing, improvement in streets and transportation, recreational facilities, problems of preventing crime and delinquency and of providing adequate educational facilities. The neighborhood educational program thus seeks the constant growth and development of the community not only through the medium of the education of the children but through the constant education and growth of the adults of the community.

We can now turn our attention to the general characteristics of the neighborhood educational plant. First of all, it must be safe and healthful. It should employ the best scientific knowledge concerning heating, lighting and ventilation. Under no circumstances should children be permitted to work in inadequate light or under undesirable temperatures or conditions of atmosphere. The entire structure should be so constructed as to prevent as many accidents as possible. Proper stairways, floor surfaces, exits and fireproofing are indispensable elements in construction. Standards of sanitation should be the very highest, and all construction and surfaces should facilitate cleanliness and ease of care.

In the second place, the plant should be educationally efficient. Since the neighborhood school is to serve the entire community, it should be planned with the community service in mind. Auditoriums should have easy exists for the public as well as for school children. Satisfactory rooms should be provided for large and small public gatherings, with facilities for the preparation and serving of food. Offices should be adequate in size and appropriate in appointment for the receiving of visitors, and easily accessible to them. Rooms should be provided for community use in such areas as art, music and home arts. Libraries and reading-rooms should be adequate, beautiful and comfortable. Special rooms should be provided for use by officers .nd workers in community agencies for purposes of conterences and planning and conduct of work in adult education.

Finally, the plant should be beautiful in exterior and interior design, in decoration, furnishings and all appointments. Education must concern itself more definitely with the emotions of both children and adults. Concepts of beauty and art can best be taught by example and by subtle suggestion.

Each schoolroom should teach principles of design, of color and of beauty of arrangement and appointments. Schoolroom furniture should be chosen for its beauty as well as for its utility. Pictures should harmonize with the room, the furnishings and the decorations. There should be variety of color and design and variation from room to room in line with the various educational purposes for which rooms are used.

Beauty in the building and its interior should be matched by beauty of landscaping and care of school grounds. Landscaping is important not only to provide an esthetic setting for the educational plant, but can also be utilized effectively to bring children into closer contact with nature. The entire building and grounds should be an example of beauty and good design in architecture and landscaping.

Our neighborhood school building should be designed to facilitate the education of total personalities and should adequately house that kind of educational program. Since teachers should do much individual work with children, each teacher should be provided with a satisfactory office that can be attractively equipped so as to be an inviting place for both children and parents. Each teacher should have both a general classroom and a workshop. This makes possible the conduct of varied activities simultaneously and makes it unnecessary to injure the better type of schoolroom furnishings with the damaging effects of construction work or painting or other types of art. The provision of a workshop also makes it possible for pupils to leave unfinished work from day to day, and thus simulate studio or workshop conditions.

Adequate provision will be made in the neighborhood school for the enjoyment of music. The auditorium should be provided with acoustical treatment, comfortable seats and proper control of lighting in order to make for the most satisfactory conditions for the enjoyment of concerts and other musical performances. A well-insulated listening room should be provided with a good phonograph and records for the enjoyment of recorded music. At least one large studio should be provided for the graphic arts and a shop for industrial arts, as well as adequate quarters for home arts.

Provision must be included for both school and community health. Adequate playground space, a usable gymnasium, quarters for the school nurse and school physician are essential.

Even with all the features and advantages that have been pointed out above, the neighborhood school will not house anything like the entire educational program for the neighborhood, nor even all of the activities primarily designed for children. For education, to be effective, must be carried beyond the walls of the school building into the life of the community. There will be frequent field trips and excursions; many problems and materials will be studied in other community agencies and in other parts of the school district if it is a large city or a larger rural community. But the neighborhood school is a home base from which educational programs are planned, directed and conducted. Broadly speaking the entire city or school district, certainly the entire neighborhood, is a laboratory for educational activity.

Since both the neighborhood and the school are in constant process of growth and change, the educational plant should be flexible in design and arrangement. Movable partitions—dual-purpose rooms—and plans which permit additions are all features to be carefully considered and provided wherever desirable and practicable.

Practically all of the requisites for a good neighborhood school pointed out above apply to a school building regardless of its size, whether it be a one-teacher rural school or a more elaborate structure for a city neighborhood or a large rural consolidated school. Regardless of size, this neighborhood school should be safe and healthful, educationally efficient and beautiful in design, in structure and in appointments. Regardless of size, it should be a tool for the achievement of a modern concept of neighborhood education. Regardless of size, it should be an architectural expression of the best thought and feeling of the neighborhood.

### WHAT ARCHITECTS ARE SUPPLYING

### By Douglas Haskell, Associate Editor, Architectural Record

**M** AJOR change is always slow, and yet observation of even the most casual kind will reveal a most gratifying advance since 1940 in the art of school design for neighborhood use. If measurement is made in crude terms of gross area alone, it will be found that space for activities which serve the community even more than they serve traditional education may occupy up to half of the total building volume, and that nearly all the ground area is developed for dual use in a good many of the better examples.

Before analyzing a chosen group of new designs in detail, in order to see how well they may have met the requirements ably outlined in behalf of educators by Dr. Melby, it may be pertinent to remark on an aspect which is peculiarly the architect's own concern although Dr. Melby flatteringly takes it for granted—namely, efficiency of organization. The complicated new elements demanded for neighborhood service are thoroughly disruptive to the old simplicity of school plans, which consisted mainly of two rows of classrooms facing one another across a corridor terminated by boys' and girls' toilets and drawing its daylight from the central stairwell.

Proper organization recognizes, to begin with, that facilities for community use are most of them likely to be noisy. These elements are therefore made the hands and feet of the school plan, at terminal positions where noise may be dissipated on three sides to the out-of-doors, and buffered from classrooms on the fourth, interior, side by means of closets, store rooms, or other noise absorptive areas.

If the examples set before us on succeeding pages are typical, then it may be said that the custom of placing the gymnasium and auditorium in a central block well inside the school, to meet compositional requirements arising out of the augmented height, is swiftly diminishing. In counter-distinction, community facilities of a quiet kind, rooms such as medical clinics or an occasional community library (see especially the Litchfield School on page 78), are placed appropriately close to the entrance and as near as possible to the center of the plan. The rambling plans coming into favor depend on technical progress in such features as public address systems of intercommunication.

Passing to Dr. Melby's suggestions in detail, we find not only that public areas have been provided, as he suggests, with ready entrance from the outside as well as *from* the school interior, but also that the serving and preparation of food, which so often accompanies social functions, has been managed by many architects with distinguished skill. The kitchen in the best plans is so placed as not only to be readily and inobtrusively accessible for deliveries, but also to be convenient in several directions, alike to the school cafeteria, to the multi-purpose community room, or to an auditorium or gymnasium. Not often in the past has the thought of food evoked in the mind of the architect the thought of music; but now we find more than one designer going beyond Dr. Melby's immediate program by supplying an orchestra alcove in the dining space, permitting its conversion into a neighborhood ballroom. A particularly pleasant idea in entertainment is expressed in the provision, in the Rhinebeck school (seen across-page) of an outdoor dining terrace off the cafeteria; this will no doubt serve neighborhood social events in the heat and quiet of summer even more extensively than it will serve "school" affairs in spring and fall. Speaking of food, an especially interesting plan in our series is that for the rural school at Litchfield, Michigan, which not only is used as a combined elementary school, high school, and vocational school, but which also places some of the "vocational" equipment at the service of the neighborhood, notably the cannery which is connected with the agricultural department, along with metal and woodworking shops.

Dr. Melby makes special mention of expanded use of facilities for music and the visual arts. To a marked degree music rooms have been successfully grouped around auditoriums, and a separate band room has in one instance (Lakeside School, page 80) been conjoined with the athletics wing, which again is usable by the public.

With respect to classrooms, too, development has been rapid. Judging by results, school boards do not all fully agree that activity workshops should be added to *every* classroom, and a dual system seems to be in greater favor, which employs the so-called Winnetka arrangement with separate shop space auxiliary to rooms serving younger children, while other classrooms have only a sink or an activity alcove, on the theory that the older pupils will move into special shop areas tooled for more advanced skill. A strong trend is discernible toward the square classroom yielding inexpensive free floor space no matter how seating is arranged; this has evoked some ingenious new solutions in daylighting and the correlation of artificial light.

Outdoor classrooms are ever more skilfully capitalized. By providing innumerable quick exits they add to that element of safety which is Dr. Melby's proper concern.

Although no school board has apparently been willing as yet to appropriate funds for the proposed separate consultation office for each teacher, at least one of our examples (Creston School, page 91) supplies a handsome joint teachers' conference room, where they may discuss children's problems with parents.

Dr. Melby's request that the educational plant be made flexible in design and arrangement has been met with special felicity in schools such as the San Carlos, California example seen on page 94. Here the entire floor and the ceiling with its lighting grid are built continuously as in loft space, and subdivision is made easy with detachable partitions and easily movable storage furniture; essentially the same idea is also sketched by Chicago architects in Time-Saver Standards (page 117).

All these detailed expedients, arrangements, and innovations add up to an entirely revised school concept, of education of, by, and for, the community as a whole.



**NEW YORK** • Moore & Hutchins, Architects; Edward D. Stone, Associate

Full community development of grounds as well as building







The "rear" or east side of the school shows projecting classrooms for youngest grades, and well-placed playing courts



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 $\mathbf{T}$ HE school grounds in this project have received an unusual degree of development for neighborhood use, and the building has been organized with thoughtful thoroughness. The main parking lot is happily placed close to both the playing field and the public rooms. Hard-surfaced playing fields are in direct contact with the gym. The building masses have gained in interest and intimacy by being allowed to conform to use; and the free general arrangement will make it easier to extend and adapt the building.



The school has two general types of classrooms. High school rooms are rectangular, and lockers are in the corridor alongside. Rooms for the higher elementary grades are very similar, except that lockers are inside, along the rear of the room. Both are designed to maximum width conformable with the daylighting requirements of New York State. Primary grades are interestingly handled, with alternate units projecting outward to form sheltered outdoor terraces, and to permit the work alcoves and large coatrooms especially needed for small children.



The administrative unit is correctly placed, close to the entrance, and has the special feature of providing several teachers' conference rooms, where children's problems may be discussed with parents. These rooms are convenient to a teachers' entrance from a separate parking lot.



The shop has a correct long shape, and unusual care has been exercised in securing straight-line delivery for its bulky materials. The kindergarten has a separate entrance all its own, so small children need not use corridors, and can avoid struggling with the older children.



Community needs are met in a well knit group of units. Delivery is easy both to the kitchen and the auditorium. The kitchen can easily serve the cafeteria, the gymnasium, or the auditorium. The gym can be divided down the center for simultaneous separate use by boys and girls, with direct approach for both from their respective locker rooms. Music rooms and the stagecraft room are well related to the auditorium, and there is a separate small stage in the cafeteria. The entire group can be easily closed off from the classroom section.



In its economical reinforced concrete-frame structural system, the Rhinebeck School makes a departure for New York State. The projection of the second floor out beyond the first is explained by the desire to have full 22-foot width for the high school classrooms on the second floor while providing locker space on the corridor.





### cradle to grave" for all members of the community



The Jackson School, already built, by the same architects, gives an impression of the character to be expected in the Litchfield School. The Jackson School will be presented in ARCHITEC-TURAL RECORD for July



Elmer L. Astleford





### music rooms as the nucleus of neighborhood development

### ADDITIONS TO LAKESIDE SCHOOL, CALIFORNIA



### Frank Wynkoop and Associates, Architects and Engineers

 $\mathbf{T}$ HE existing part of this wide-spreading and ample California school is to be presented fully in the next issue of ARCHITECTURAL RECORD, along with other schools by the same architect which carry forward a unique line of approach to the development of square classrooms and their adequate daylighting. In the present context, the main interest attaches to the proposed additions. They embrace all that part of the plan appearing on the left-hand page above the existing auditorium, which is seen also in the foreground of the photograph above.

The additions, considered as a unit along with the present kitchen, cafeteria and auditorium, will complete a neighborhood service unit which occupies well over half the area of the total building group as shown.

This example has been included because of its stress in athletic facilities, and the attendant stress on music, presumably with no neglect of the school band. Practice rooms are so placed in relation to a handball court that votaries on both sides may hammer away to their hearts' content, disturbing no one, least of all one another.

The entire bleacher section is to be covered with an awning, and the whole arrangement is suited to use by all the neighbors.

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### PASO ROBLES ELEMENTARY

### SCHOOL • CALIFORNIA

Frank Wynkoop and Associates Architects and Engineers







### Small school



Roger Sturtevant photos

### equipped with kindergarten and health office

 $\mathbf{T}$  HIS is preeminently a child-scaled school; there is even something diminutive in the appearance of the long wings, despite the amplitude of their actual dimensions.

Though the plant is very modest in size, we find a fully equipped nurse's office and an adjoining rest room for children needing temporary isolation. The presence of a kindergarten always gives a school neighborhood character, because it brings the parents in with the children.

The Paso Robles school joins the long list of California institutions which use a plan based on parallel rows of classrooms, forming sheltered courts as additional outdoor play space. Also, the roofline steps down informally with the slope of the land, reducing building operations to the minimum. The exterior finish is in stucco which is colored.


The two views on the opposite page are both taken in the kindergarten room, which is wider than ordinary classrooms by the width of the alcove seen in the lower picture. In the view on this page of a regular classroom, the activity alcove, with sink and storage space, appears at right rear



 $T_{\rm HE}$  square type of classroom, which has become so customary in California, gains many of its advantages through the extra space that is left over for special activities, no matter what arrangement is chosen for the seating. Bilateral lighting permits the seats to be changed around and to face in any one of several directions.

If seats are arranged to face the inner wall, space is left to right or left; if on the diagonal, there remains open space in the corners to the left and right and rear.

The kindergarten room in this particular school has been given extra width by the simple expedient of placing it at the end of the corridor, where it also gets its individual toilet, needed by the smaller children.

By placing the fireplace in the center of a glass wall, the architect has obtained a pleasant and striking effect encountered hitherto more frequently in modern residences.

The extra length of framing needed in the larger room for support of the clerestory has been reduced by lally columns, cleverly incorporated into the design by means of alcoves.

This classroom is actually flooded with daylight, well diffused and of high intensity, both visually and by meter-test (see footcandle range line in diagram below); a fact not wholly evident in the picture

The greatest innovation in the Paso Robles school has perhaps been the ingenious use of a sawtooth roof, similar to those of factories, to increase the depth of daylight penetration. Tests quoted in "Sixteen Ways of Daylighting Classrooms" (AR, May, 1944) showed that a heavy role is actually played by the roof parapet. It reflects sun rays coming from the south and sends them back into the room. Additional north light comes from the sky, through both the upper and the lower windows, and some is reflected up from the ground. The result is a remarkable evenness of illumination, and a desirably short range of brightness.





The outdoor semi-enclosed court areas, created by space between parallel rows of classrooms, make an especially agreeable place for outdoor play. In the lower view is seen the school entrance, with administrative offices to the left and health center right





#### **COMMUNITY FACILITIES, BEREA, OHIO**

J. Byers Hays, Wilbur Watson and Associates, Architects

## Child Center carefully combined with a Neighborhood Center



R. Marvin Wilson photos

**T**HE building pictured above serves everyone except children trooping off to school; and yet it belongs squarely in the middle of a school study. As a neighborhood center, it serves the "post-school" age; as a child center, it serves the "pre-school" age; and the net result is a vigorous expansion of education downward and upward in the sense spoken of by Dr. Melby in his introduction.

Child centers owe their rapid spread to the needs of working mothers. The center originates as a place to leave small children. What would be more natural than to provide facilities in the same place for children's health, and then for adult health, and finally for adult recreation?

Ultimately the community center thus organized becomes a place where the whole family can join with its neighbors for social occasions and for sociable relaxation.

The example shown was built in connection with a war community in an Ohio suburb near the city of Cleveland. To a remarkable degree it combines modest scale and a pleasant appearance with the dignity that should attach to every civic building.



The quiet small children's play court seen in the view above is situated in the northwest corner. It occurs in the part of the plan which is seen directly to the right of this caption

 $\mathbf{T}_{\text{HE}}$  plan for the Berea community and child center shows a remarkably clear organization. There are actually two buildings, as seen in the large photograph, each complete with its own heating plant and kitchen, and yet both are combined skillfully to make up a single unit, effectively brought to a central focus.

Although the total length, through the main axis, is more than 300 feet, the building retains a surprising appearance of being "little."

Of particular interest is the manner in which all the noisier areas have been isolated and baffled off from areas needing quiet. The windmill pattern of the children's playrooms leaves only a short end of each room contiguous to the corridors; and cloakrooms, fuel rooms, the entrance, or other intervening zones are to be found next to each. The same principle is used in the neighborhood center devoted to adults. Here the room for action games is baffled off by the furnace, and the maintenance room has a far end of the building to itself.





The north entrance to the building is seen in the rendering above, and the south entrance occupies the foreground of the photograph. The first is for children, the second for adults







The view above is from the east, the view below from the west. The link element between the community center and the child center is the open passageway, which may be seen in both pictures, performing its function of giving fourdirectional access. The vista which opens through it to the houses in the community is an interesting component of the building composition



#### **CRESTON SCHOOL, PORTLAND, OREGON**

Wolff and Phillips, Architects

Using specialized classrooms and fully developed public areas



In the rendering above, it is manifest that all that part of the building which shows in the foreground was intended for neighborhood use. The School Board specified that the kindergarten, nursery, auditorium, and gymnasium should be so arranged as to become part of the community life. All of these elements are grouped together except the gymnasium, which has a position at the western end, contiguous to a public playground which is already under operation. The community facilities can be used separately at times when the remainder of the school is locked up.

The school itself is to serve 450 pupils.

Construction is to be fireproof, with exterior walls of concrete with brick facing.

In its main classroom wing the Creston School, along with a group of four other projected schools by the same architects for the city of Longview, Washington, is designed to take advantage of the surprisingly mild climate and negligible snowfall of the region. This makes it possible to use deep square classrooms and light them by clerestory construction which is explained overleaf.  $I_N$  every school of pronounced "activity" character, there are noisy areas to be isolated from the quiet zones. Here we have a zone where there will be extended use of tools and apparatus creating more or less noise, properly grouped together at the end of a wing rather than in a basement or in the center of the building. It is noteworthy that the "science yard" contains provisions for study of plant life.

**T** wo kinds of classrooms have recently been engaging the attention of educators—the square type which is becoming widespread in the West, and the more or less free-standing type which had its widest publicity when adopted in the Crow Island School at Winnetka, Illinois. The proposed Creston School uses adaptations of both kinds. In this western end, rooms tending to specialized use are of what might be called the "Winnetka" type, while the remainder of the rooms are square and all open directly to play areas.

One of the innovations worthy of special attention is the distribution of toilet rooms in scattered positions along the entire corridor, to cut down the need for supervision.

The heating is divided into seven zones. These serve, respectively, the classrooms, offices, cafeteria, auditorium, gymnasium, nursery and kindergarten, and community facilities sections. The community-facilities zone and the classroom zone are served by a split system utilizing wall-hung copper convectors for direct heating and a central fan for mechanical ventilation. The auditorium, gymnasium, and cafeteria are heated by individual blast units designed for continuous fan operation. The office has wall-hung copper convectors and the nursery and kindergarten have warmwater panels in the floors.





The structural system proposed for the Creston School is distinctly novel. The middle portion is raised up as shown in the section, to form a clerestory which daylights not only the corridor but the innermost part of the classrooms. Glass block are found in the clerestory and again in the upper part of the corridor wall directly opposite.

This arrangement permits the *inner* part of the classroom to be used as an activity area. The artificial illumination is closely integrated, and will be the subject of a later study.

 $\mathbf{T}_{\text{HE}}$  community or neighborhood provisions in this plan are far from negligible, including as they do a full-fledged theater and big cafeteria capable of serving big evening functions as well as school purposes. Note the provision of a bandstand in the latter room, making it available for dances and entertainments.

Two little features in this community wing deserve special mention: one is the teachers' conference room, whose importance is stressed by Dr. Melby. The other is a book storage room—a highly essential school facility too often forgotten altogether.

The nursery area has a glassed-in porch.





Fluid open planning of units for school and neighborhood



# SAN CARLOS ELEMENTARY SCHOOL, CALIFORNIA

Proposed plan, "Scheme F"

Ernest J. Kump Company, Consultants and Architects

 $\mathbf{T}_{\text{HIS}}$  is a particularly expressive example of the kind of fluid planning which the skilled modern architect is able to achieve by means of strictly modular design and structure. The elements for neighborhood use are handily grouped at the entrance, with the needed combination of accessibility and isolation.

Each wing or unit is conceived as an open loft space; all windows, walls, end walls, and interior partitions are

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light and non-structural. Floor and ceiling are covered continuously throughout the length of the wing before partitions are set, to avoid need for patching when there are changes. These partitions are based on the universal 4-foot module and are screwed in place. Door and window panels are interchangeable with them.

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Radiant heating is continuous through the floors, so that no problem arises when partitions are changed. One or two small hot water units supply each wing.



Plans on right-hand page suggest the many variant arrangements that can be made with the single classroom type shown below in cut-away section







 $\mathbf{T}$  HE view at the top of this page shows the passage which runs past the lower grades toward the entrance. The nursery unit is to the right. On the opposite page is seen the main longitudinal passage. In this school there is carried forward the development of the square indoor classroom with attached square outdoor classroom. The latter is arranged so as to include an individual garden strip along one side and a work bench along the other. Trees are used for shade, but in other schemes now under development the architects have used overhead canopies set on posts to shade the work bench.

Classroom storage is by means of interchangeable, flexible, easily movable units, illustrated in "Time-Saver Standards," on page 114.



## **DESIGNED FOR**



# His own Postwar House for Urban St. Louis

by Harris Armstrong, Architect



Photograph of model looking toward the rear. Garage is about four feet lower than grade; has studio space above

 $\mathbf{T}$  O BRING the principal advantages of country life into the city is the basic objective of this plan. It is to be built in an old neighborhood in St. Louis, for a family of five—Harris, Louise, Joan, Jeffrey and John—most of whom have spent their entire lives in suburbs and country. Hence the exceptional degree of integration of indoors and out, of garden development, of provisions for privacy.

The lot is 100 ft. wide, 213 deep, and faces north. Using the large south-facing glass areas (with overhang to protect against summer sun) it is possible to make the enclosed garden an actual exterior projection of the house plan. The various angling lines of the plan are intended to open the house toward the center of the garden, as well as to relieve somewhat the too great rectangularity of the plot.

The yellow canvas canopy which starts some twenty feet in front of the house, passes through the building and extends on to the back of the garden. In addition to forming "a wet weather roof over the path to the garage, it is a spatial integrator and an indirect lighting source for the living-dining room."

It was felt that during the winter months the garden would present a rather bleak appearance and that most people would prefer somewhat more sense of enclosure than is



Over-all view of small-scale model, Curved wall at left encloses swimming pool. Canvas canopy passes through house



Left: section through kitchen, living-dining room and plant room. Left, below: section through receiving room and bedroom



afforded by plate glass, hence the plant room, located under the overhanging roof projections, to furnish bloom and foliage in winter.

The house plan itself has been developed to give the greatest flexibility consistent with the expected use. "The open plan will not work," says Mr. Armstrong, "if it is wide open all of the time. Some activities must be segregated from the group. In this plan, similar activities occur in related areas." The sliding panels down the center of the three bedrooms permit more flexible use when some members of the family are away at college or camps.

"At first thought," he continues, "there appears to be a basic flaw in the 'solar house' because of the lag between the middle of the summer according to the sun (June 21) and the middle of the summer as determined by average temperatures. In St. Louis the lag is 34 days, and if the roof projections are designed to allow you some sunshine in March then you must have it also in September, when you would much rather keep it outside. The solution is in the proper utilization of nature, in this case fast-growing vines (moonvine, morning glories, cardinal creepers, etc.) which are planted at the eaves drip lines in the spring and climb up strings laced through eyelets at the eaves. These vines will climb to the top and then spread out to join horizontally, forming a perfect natural sunshade which will last until the first killing frost."



## DELINEATING THE DEMANDS OF BUYERS

Three Postwar Designs to be Built for Sale





#### **Richard B.** Pollman, Designer

IF ALL operative builders would do as well as this, the postwar boom would really provide better living. Each design has been done for an actual purchaser, and together they are representative of "the type of house I have received the most inquiry for during the year." The one above was designed for expansibility, the car port and extra bedroom to be added later.



This one is to be used as a basic unit in a large project, with eight exterior variations. Smaller than the others, it still manages the laundry-kitchen combination, the good closet space, cold room, and good circulation. Like the others, it will have radiant forced hot air heat through "Flexicore" concrete slab floors. Ceilings of the same material, with acoustic surfacing. Gypsum partitions with dry-wall finish.

The larger house (opposite page) provides more extensively for varied activities of the family. The small living room gives a good conversational space, can also double as guest room. More importantly, it frees the larger "activities" room for less formal and more varied functions. Windows will be sealed with double, sealed glass; ventilation will be mechanical. Extensive built-ins and storage areas mark the postwar world.





# SPACE, MORE SPACE, FOR ACTIVE LIVING

# His own Postwar House for suburban Living, near St. Louis by Charles W. Lorenz, Architect





**W** HILE one architect (see page 99) is moving into the city, this one is leaving St. Louis for the country, to build his idea of a postwar home. With space an obvious objective (obvious in the plan) he has been preparing a 12-acre site complete with vegetable garden, vineyard and orchard, plus ponds. Principal rooms will face a fine view to the southwest.

The typical bedroom, divided into two zones by a glass partition, is designed for sleeping in fresh air, dressing in warm comfort. Dressing areas have built-in cases, dressing table and lavatory, to ease rush hours at the bathrooms. "The oblique walls of bedroom units," writes Mr. Lorenz, "will lend themselves to the display of water colors, oils, and photographs which I make, as well as those of artist and architect friends. You will note the absence of bedroom doors. Privacy is obtained by the placing of the walls, and noises will be trapped by acoustic surfaces. The furniture *will* go through!" The spacious work rooms and kitchen are for a family of active hobbyists — painting, photography, jewelry-making, weaving, gardening and fancy cooking. If the rooms seem large, the architect thinks they may prove too small!





## DESIGN FOR LIVING WITHOUT SERVANTS

Proposed Residence for Dr. and Mrs. Nelson Morris, Rossford, Ohio Bellman, Gillett and Richards, Architects and Engineers





**H**ERE is another instance showing that the new crop of houses will benefit from added thought to kitchen, laundry, work and storage areas. Kitchen area gradually flows outward through laundry, shops and storage, porch and garage. Bedrooms have tray cupboards plus wardrobes, both designed for prefabrication. Built-ins add further convenient storage. The telephone booth is especially appreciated because the client is a doctor. And the map base and radio cabinet bring his hobbies properly into the living room. Radiant heat with quick controls to balance with solar heat.

Garage is angled to prevent it from dominating the front of the house without complicating the drive-in





#### Frederick L. R. Confer

### FOR AN UP-SLOPING SITE

House for Mr. and Mrs. Robert Rose

Orinda, California

A HOUSE on such a site, but for the skill and ingenuity of an architect, could have been a monstrous thing. But the architectural hazards of a steeply up-sloping lot, and the front garage requirement, were absorbed in a composition which, especially with the shadow lines of the roofs, keep the house not only low but also intriguing. The interest of the studio exterior ought to please the artist working within.





Architect

#### FOR A DOWN-SLOPING SITE

# House for Mr. Hamilton McCaughey

Monte Vista, California

 $\mathbf{T}$  HE reverse problem—a down-sloping site—is easier to handle, but still requires care. Here it results in a logical split-level house. The slightly-higher-than-onestory front is held down by horizontal lines of roof, window strip and long planting area raised above the drive level. Orientation was particularly fortunate in that the prevailing wind is from the north, or front, leaving sheltered terrace to south.



#### THE SMALL HOUSE AND THE MASTER-BUILDER

#### By Kenneth W. Dalzell, A.I.A.

Questions of policy, ethics, practices, abilities, organization and personal preferences enter into this proposal. Is it the best solution to the perennial small house problem—for the home-building public, for the profession and for the individual architectural firm? Mr. Dalzell thinks it is. Do you?

**O**F THE MILLION or more small houses to be built after the war, how many are to have the benefit of the architect? And just how?" In last November's issue of the Journal of the A.I.A., Henry Saylor asks this \$64 question. Rather a ridiculous situation, is it not? Billions of dollars in new home construction, for millions of people, with profit to those who are able to produce. Some architects, particularly those who had a practice of large work cannot do this small work, admitting that they cannot profitably do a job under \$50,000. There was a time, however, when many well-trained and just as capable architects did do this work, without much profit it is true, but with a reasonable degree of satisfaction. House design was used as a stepping stone to more important work, and a few of the architects later gained national recognition.

This procedure was later made impossible by the actions of the very ones who said they could not do the work profitably. They created the now defunct Small House Service Bureau, with its stock plans for \$25 approved by the American Institute of Architects. The Institute subsequently withdrew its endorsement, largely at the insistence of the New Jersey Chapter, many of whose members had been doing small houses in a satisfactory manner. But it was too late, the damage had been done, the public was confused about the services of the architect and about both the value and the price of such services. More confusion was added a few years ago by the new scheme of the brain trusters, more stock plans with "limited service" and limited fees. Ostensibly it was inaugurated with the altruistic intention of providing people who could not afford an architect, with what they thought were better plans and a bit of service. But this scheme cheapened the value of the architect in the eyes of the public and certainly made a visible fee of 10 per cent look like something worth saving if possible.

#### **Builders As Architects**

What happened? The builders acquired copies of the books of stock plans and used them as a sales kit. Then *they* either had the plans revamped by a draftsman or they did it themselves, and laid great stress on the 10 per cent they were "saving" the owner. Competitive bidding was eliminated, and sometimes a brokerage fee of 5 per cent was paid a real estate man for putting the builder in touch with the owner. Of course these profits and fees were concealed and the owner was happy at "saving so much money," and at the same time have a house built from plans by a well-known architect.

The practice became a boomerang to the architect. People who built small houses in this manner became more affluent and built larger places or business buildings, or possibly were on the board of directors of the local bank at the time they were to build a new building. Result, why pay an architect? Many architects with a small practice were by now working for the builders, trying to compete with the stock-plan-redrafting-cost system. Some younger men became draftsmen for the builders, and John Q. Public, confused by our own ill-advised action, often thought he had an architect whether or not he paid him. So this is about where we stand today, and in this position we will be when the war ends—unless someone has the courage to acknowledge our mistakes and to start over. I mean start way back where we were before the Institute came into being, yes, before architecture was made a "profession."

The truth is we have set up a code of professional practice which, due to competition of our own making, is now outmoded. The builders, with the aid of capable architects, are doing a fairly creditable job, and the public seems to prefer the method now in vogue for houses up to \$100,000 in our locality. They, the builders or developers, offer the very things the people want most, and which we, because of professional ethics cannot give them-to wit, responsibility for cost, time of completion and quality of materials and workmanship. The others (the builders) do take this responsibility, and do a fairly good job of it too, at a profit. Under the present builder-method, the architect seldom meets the client, the salesman is the go-between and talks with client, builder, and architect. Obviously such an arrangement deprives the client of the best type of architectural service, and deprives the architect of a proper fee.

#### One Way Out!

The dictionary I have here (Webster's 1920) describe an architect as follows: "Architect—chief artificer (master builder) one who plans and oversees the construction of buildings, designer, and MAKER." There, I think, is the answer to the \$64 question. I will admit that it is practically impossible for the architect to subsist today on residential work alone. This is due to the fact that now too many young local architects have been tempted to work for the builder, either at nominal fees which have reduced the quality of the work, or on a salary. Others, in the emergency, have had to take government jobs, and this before the war. Such practice in New Jersey, at least, is not confined to the small house, but houses costing up to \$100,000—with the majority at perhaps \$20,000.

If we want to bring the benefit of the architect to these millions of new homes which will cover our landscape, we must change our method of practice and assume the responsibilities the client expects, as our competitors do. Is there anything more unprofessional in that, than for an architect to work for the builder under existing conditions, in competition with the architect trying to conduct a private practice? I do not think so. I don't know why I get so wrought up about it. I saw the writing on the wall some years ago and bought some land to build houses on for sale. It has been quite satisfactory, and very simple.

#### The Way It Works

The work is done in the name of a company; I own the company and there is no chiseling of fees. Strangely enough it has not hurt my private practice; if anything, has been a help. On our architectural jobs, the development company has nothing to do with the work, all is executed by outside contractors who know we will not bid on the work or have any part in it. From the practical side, we are in close touch with costs, seldom underestimate a job from sketches, and if necessary we make a quantity survey of the materials and price it, consequently our estimate of cost is usually between the high and low bids.

Another thing-from the practical standpoint, I do not have to take on and lay off draftsmen; in slow periods we design houses to be built on certain plots, particularly the problem lots, of which there are always some, and these sketches are used to sell that particular plot. The greatest trouble we have is explaining why we will not build on a client's own land. So far we have confined the building operations to our own land, selling a package job, complete with financing if required. One good reason for that is that we retain the title until we receive the last payment. Also the key. Just what we will do in the future I do not know, it will depend upon conditions and how many builders or building companies enter the plans-to-completion way of doing business, with the aid of a hired architect in the background. We will have to admit, whether we like it or not, that it has its merits, from the client's point of view, as he deals with a single responsible administrator of the project.

Speed is gained and the waste of hundreds of hours of estimating by numerous contractors and subcontractors is eliminated. Overhead is reduced and this eventually can be passed on to the owner, as competition demands. As we all know, the general-contractor-competitive-biddingsystem is not without its evils, and is the principal reason for the necessity for supervision. "Chiseling of subs" is not unknown. I have found most subcontractors, the men who actually do the building, to be honest, able, and to take a pride in their work, particularly if they are not put in unfair competition. Of course, there are all kinds, but after being in business for a few years it is not hard to sift them out and classify them.

#### Accepting Responsibility For Building

We have a wonderful opportunity ahead, that of bringing the benefit of architectural skill to millions of small buildings. Competent architectural services should make the community a better place in which to live. If we will change our methods and accept responsibility we can use this mass of small work as a clinic for the architect to get in closer touch with small building problems, costs and construction methods. To do otherwise will just create more designers, paper architects, who have no control over the execution of their creations, a condition which I believe would prove disasterous if allowed to develop. The architect who will assume full responsibility for the design and execution of the house will gain the respect of the client and, what's more, a fee proportionate to his service.

#### **Organization For Building**

Just one other thought I would like to mention. Even house building has become quite complex and is therefore a job for an organization. The full-contract method, plansand-construction, makes an organization possible; a number of subcontractors actually do the work, their bids are totalled and profit added.

By standardization of specifications and details, costs can be reduced, because of quantity purchasing. The owner gets more for the money than the architect can give him under the old bidding method, and the subcontractors as well as the architect still make a profit—a good profit.

The strange part of the whole present "builder" set-up is that the so-called builder is often a man without building experience or technical training in construction. He is often a businessman and salesman. He gains the assistance of an architect for plans, then gets the bids and sells the job. I know one builder who said he made \$10,000 on a certain house. I also know he paid the architect \$400 for the plans. Another builder, now retired, told me he made \$20,000 on a house one of the men in my office designed for him, at a fee not mentioned.

The statement that a house will not stand a 10 or 15 per cent fee is ridiculous. It simply means the owners do not care how much they pay if they get what they want, where they want it, and a price they can afford and know before they become too involved. It is up to the architect to be realistic and to serve his client as he wants to be served —by a single responsible organization.



A portion of a prewar suburban development at Short Hills, N.J., by Kenneth W. Dalzell, A.I.A., Architect

# SAN ANTONIO MUNICIPAL PORT

Atlee B. and Robert M. Ayres, Architects



Revised plans, to supersede those published in Architectural Record for April

 $\mathbf{T}_{\text{HE}}$  publication of these revised plans within two months of the originals attests the rapidity of airport progress. The San Antonio Airport was presented in the RECORD's airport number in April, pages 86 and 87. In the revision, the parti remains the same but there are instructive changes in detail.

The spacing between plane stations is held at 150 feet. This is true of the distance across the break in the right-hand wing. The left-hand wing, of equal length, has four stations, of which only one is shown.

At each station, terminal facilities of the individual airlines are arranged with a view to possible later expansion; for the present the







## **CLASSROOM STORAGE FACILITIES**

#### Text and Sketches by Lawrence B. Perkins of Perkins, Wheeler and Will, Architects

Each classroom should provide storage for the following categories of material: (1) supplies and paper; (2) equipment; (3) books; (4) records; (5) clothing; (6) tools; (7) individual children's project material; (8) toys. The quantity and the proportion vary with the age group and the type of program. Since both of these factors are subject to change, great flexibility is desirable.

All teachers stress quantity as the prime virtue in storage space. School boards are concerned with cost which is seriously affected by cabinet and millwork. This conflict may be partially resolved by using storage elements in a triple capacity — as partitions, bulletin boards, and for their primary purposes. The following sketches suggest a series of storage elements which may be assembled in various combinations to accomplish such results.

Storage units do not have to be used as partitions to be valuable. They can be assembled as islands, counters, screens, or set in wall recesses and still permit interchange from room to room.

No attempt is made here to sug-

gest all the possible variations on this idea for different types of rooms such as libraries or art rooms. Also these dimensions (4 ft. by 2 ft. 8 in. by 2 ft. for most units shown) are tentative and must vary with the modulus of the building.

Three courses may be as high as it would be profitable to carry these elements. The space above these up to the ceiling should be filled in by one of several methods which will permit removal of the portable units without injury to the ceiling. Ceiling should be installed complete before partitions are installed.



## CLASSROOM STORAGE FACILITIES (Continued)





Junior and Senior High School, Harrison, N. Y. Architect, Robert Vignola, Harrison, N. Y.; Associate Architect, H. H. Knappe, New York City; Consulting Engineers, Daniel & Wallen, New York City; Heating Contractor, John Winkel Co. Inc., Larchmont, N. Y. Boiler Plant consists of three 20-section #60 Smith Cast Iron Header Type Boilers.

Boiler Plant...

# for the POST WAR SCHOOL

City school operating officials are obviously in a favorable position to compare fuel and maintenance costs of various types of heating systems. Basing their findings on long term studies of these operating expenses it is significant that more and more school departments regularly specify H. B. SMITH boilers as standard equipment for their buildings.



Architects and Engineers who are now confronted with the specification of heating systems for public schools to be built post war would do well to study installations in like projects erected immediately pre-war to find the answers to many of their questions.

It is our prediction that as far as actual heat generation is concerned, the boiler plant of the 194? school will closely resemble the best installations of 1941. Recently built schools such as Westchester's Harrison High have set the standard for post war school heating.

H. B. SMITH cast-iron boilers installed in hundreds of recently built schools have not only been capable of that flexibility of performance needed by modern heating and air conditioning systems, but have proven themselves adaptable to the use of different fuels and methods of firing forced by the events of the last three years. Despite reductions in the amount of fuel available these SMITH boilers have operated with characteristic economy, reflecting credit on both their specifiers and installers.

It is this proven performance that makes an H. B. SMITH specification the best bet for today's planners of tomorrow's schools.

Complete engineering data and specifications of H. B. SMITH Boilers are filed in the Domestic Engineering Directory and Sweet's "Engineering."

THE H. B. SMITH COMPANY, INC. • WESTFIELD, MASS. Branch Offices and Sales Representatives in Principal Cities

#### JUNE 1945

ANCHITECTURAL RECORD TIME-SAVER STANDARDS

### SCHOOL STORAGE UNITS

From designs by Ernest J. Kump, Architect



Detachable legs bring the lowest units up to a minimal stooping height. As an alternative, for those

SECTION

"AI-AI"

Bookcase then serves as storage

space for hats, books, and lunch

pails.

GB REVOLVING DOORS AT ROCKEFELLER CENTER More than 60 GB revolving doors have been installed to date in the beautiful buildings of Rockefeller Center.



U. S. POST OFFICE AT PHILADELPHIA, PA. Revolving doors and metal work by General Bronze.

# GB ALL METAL **REVOLVING DOORS**

Entrance to STOUFFER'S RESTAURANT in New York City.

Doors and metal work by General Bronze.

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GB revolving doors are a worthy addition to your finest buildings. These handsome, easy-operating doors embody features developed in thirty-five years' experience in fabricating non-ferrous metal products for the building industry. They are engineered to meet modern requirements and can be detailed to harmonize with the architectural treatment of the entrance.

GB revolving doors have been specified by many of the country's foremost architects for their finest buildings. Hundreds of installations in notable buildings all over the United States are constant reminders of their excellence. As soon as metals are released for building, they will again be available. Plan now to use them. See our catalog in Sweet's.

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LONG ISLAND CITY 1, N.Y.

SIX CONSECUTIVE ARMY-NAVY "E" AWARDS





One of thousands of aluminum spandrels cast by Alcoa and now on the Rockefeller Center Buildings, New York City

# Let's look <u>behind</u> Alcoa Aluminum Spandrels and discover another advantage

Obvious reasons for the popularity of aluminum spandrels are their richness, the unusual and interesting effects possible, and the durability of aluminum.

But let's look behind and discover other reasons: Anchoring ribs cast integrally with Alcoa Aluminum spandrels simplify both the designer's and erector's job. Slotted holes in the anchors allow adjustment for the normal variations in construction dimensions and give a truer fit all over. Such an anchorage permits placing the spandrel after exterior pilasters or jambs have been completed.

The lighter weight of a complete aluminum spandrel makes handling easier, erection faster. It cuts installation costs

For details on aluminum spandrels, write Aluminum Company of America, 2167 Gulf Bldg., Pittsburgh 19, Pa. Rear view, showing anchoring lugs cast integrally with the spandrel





Common method of spandrel anchorage



## **REQUIRED READING**

#### CITY DEVELOPMENT

Studies in Disintegration and Renewal. By Lewis Mumford. New York 17 (383 Madison Ave.), Harcourt, Brace & Co., 1945. 5<sup>1</sup>/<sub>4</sub> by 8 in. 248 pp. \$2.00.

In 1922 Lewis Mumford was a young man of 26, scarcely old enough, one might think, to write a critique on a subject of such scope as "The City." Yet write one he did, and one so inherently sound that he has dared to include it 23 years later in this book of essays on city development. Much more general in character than the later essays, and less adroit, less finished, it is nonetheless a shrewd exposé of the city, and a perfect background for what follows.

All the essays in this volume have been published before, but the last two —"The Social Foundations of Postwar Building" and "The Plan of London" —have not appeared before in this country. These, therefore, with the de-



This kitchen is as carefully 'tooled' as the plant itself. It meets its constantly varying production requirements, because the 'specialized cooking tool' idea here used provides the right equipment for each



production step—in small, easily controlled units that follow schedules closely. For details and specifications of Blodgett Ovens, consult your equipment house or write

# The G. S. BLODGETT CO., Inc.

53 Maple Street

Burlington, Vt.

Reprints of this new series will soon be available to architects on request.

\_\_\_\_\_

Lailed and far-seeing "Report on Honolulu," will probably prove of most interest to the reader already familiar with Mr. Mumford's penetrating analyses of the present-day city.

"The planning of a life-centered environment for the family is the primary task in urban rehabilitation," Mr. Mumford states bluntly. "The prewar migration to suburban cottages, to weekend huts, to rural estates, was a recognition of the fact that our typical urban environments no longer offer the possibility of a significant or healthy life," he says. And good planning after the war, he sums up, "will rest on the solid foundations of the family and the region; it will emphasize the biological and the social needs of the people, and it will treat industrial and financial needs as subordinate ones."

This theme runs through each of the essays. The city has over-expanded, Mr. Mumford says again and again; it has "just growed" like Topsy, with no thought of rational development. Industrial and residential, business and educational, cultural and recreational centers have been jumbled together in utter confusion. Unlike José Luis Sert, Mr. Mumford does not ask can our cities survive; he seems to think that they can. But he makes it pretty clear that they are headed toward disaster if they do not quickly sort themselves out and make a fresh start.

Many a city planner, of course, may find this book rather lacking in concrete suggestion. For, as always, Mr. Mumford is here concerned chiefly with the essential character of a city with what has made it what it is, and with what it could and should become.

#### ARCHITECTS' VISUAL EQUIPMENT HANDBOOK

Chicago 45 (7100 McCormick Rd.). Bell & Houell Co., 1945. 6 by 9 in. 18 pp. illus.

With visual education becoming ever more of an influence in school and college circles, and with a large school building program ahead for the postwar period, this handbook is both timely and useful.

As the title indicates, this is a bulletin written solely to help architects plan the most effective and convenient use of visual educational equipment. While concerned primarily with the use of such equipment in schools, its advice is equally applicable to the planning of theaters, auditoria, recreational centers and the like.

Subjects covered are: seating arrangement; screen size and type; location of loud speaker, projector, wall sockets and cables; electrical specifications; illumination; acoustics; auditorium specifications; service and storage rooms. Charts and diagrams are included for greater clarity.

(Continued on page 122)
# DESIGNED right APPLIED right

High-level illumination of 50 footcandles or more is reco m m en ded for office work. When W estinghouse Fluorescent Luminaires were installed aires were installed room, they provided efficient lighting, free from annoying shadows, and tabulations increased 12% by actual count.



Private Office—a difficult lighting problem solved by coordinating desk and luminaire layouts. Maximum seeing comfort is provided with 85 foot-candles on the worktable after 1000 hours burning.



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CHOOSE FLUORESCENT OR INCANDESCENT LIGHTING

Soundly engineered equipment is vital to good lighting. So is correctly engineered application of that equipment to your specific requirements. You need BOTH. You get both from Westinghouse.

With correctly designed Westinghouse luminaires, you get maximum illuminating efficiency with minimum maintenance expense . . . and at no sacrifice in appearance. Of equal importance, with Westinghouse, you also have available the advisory services of thoroughly qualified lighting engineers in applying this equipment. Where unusual conditions must be overcome, these men bring to your lighting problem vast Westinghouse experience gained in the pioneering of standards and principles now widely accepted throughout the lighting industry.

Both these phases of good lighting—*right* DESIGN and *right* APPLICATION are available to contractors, architects and users through Westinghouse distributors. Get in touch with the distributor nearest you or write Westinghouse Electric Corporation, P. O. Box 868, Pittsburgh 30, Pa.

### HOW TO BE YOUR OWN DECORATOR By Helen Koues. New York (221 Fourth Ave.), Tudor Publishing Co., 1945. 8<sup>1</sup>/<sub>2</sub>

by 11 in. 128 pp. illus. \$1.00. Here is an attractive, honest and sensible book on home decorating, profusely illustrated and full of ideas. Starting out with five basic principles of decorating-type, background, color, scale and individuality-it delves into almost every phase of home decorating from how to know and use period



This is a book that goes well with the best in architectural postwar planning. For the emphasis throughout is on such acknowledged desiderata as good space utilization, unit furniture, plenty of light and air, outdoor living. There is even a separate chapter on "built-ins."



Here's the finishing touch for a hospital or business office planned for efficiency-the Cannon In-and-Out Register. Keeps tab on doctors, salesmen, and important staff members-indicates their presence or absence at a glance-gets messages to them promptly. Controlled from any entrance or remote and separated buildings, it is an easy matter for the busy executive to keep the telephone operator or main desk informed of his whereabouts.

Cannon In-and-Out Registers are being used to better organize personnel in busy offices, factories and public institutions. Write for installation and operation details of various models, types and sizes.



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#### **GEORGES ROUAULT:** PAINTINGS AND PRINTS

By James Throll Soby. New York 19 (11 W. 53rd St.), The Museum of Modern Art, 1945. 7<sup>1</sup>/<sub>2</sub> by 10 in. 132 pp. 128 plates. \$3.00.

A presentation of Georges Rouault through a well-written critique and a number of excellent reproductions of his work. Mr. Soby's study traces Rouault's development from childhood to the present; Carl O. Schniewind adds a brief commentary on the technique of the artist's prints; and the artist himself supplies a series of explanatory and biographical notes. The volume was prepared for the recent exhibition of Rouault's paintings at the Museum of Modern Art, New York.

#### **CONVERSION FACTORS AND** TABLES

By O. T. Zimmerman and Irvin Lavine. Dover, N. H., Industrial Research Service, 1944.  $4^{1}_{4}$  by  $6^{1}_{4}$  in. 262 pp.

In their preface to this small volume the authors explain that the book was prepared as a time-saver for the scientific or technical worker. "It was designed," they say, "to provide, in one convenient volume, an accurate source of fundamental relationships as well as several thousand useful constants for the conversion of units." Handily arranged, well indexed, and blessed with a list of abbrevations and a section on definitions and fundamental values.

#### **NEW EDITIONS**

#### **INSPECTED EQUIPMENT**

List of Inspected Fire Protection Equip-ment and Materials. Chicago 11 (207 E. Ohio St.), Underwriters' Laboratories, Inc., 1945. 6 by 9 in. 176 pp.

The latest semiannual revision of the Underwriters' Laboratories listing of fire protection equipment and materials. Divided as usual into sections on various types-doors and shutters, extinguishers, building materials, roof covering materials, and so on.

#### **BUILDING INSULATION**

By Paul D. Close. Chicago 37 (Drexel Ave. at 58th St.), American Technical Society, 1945, 2nd. ed.  $5\frac{1}{2}$  by  $8\frac{1}{4}$  in. 326 pp.

This useful and readable text book on insulation principles and practices has now graduated into a second edition, and presumably has been brought up to date in every respect. One of the most helpful sections of the book unquestionably remains the chapter dealing with thermal building insulations, and listing somewhat over 200 commercial insulating materials under their trade names, complete with description and manufacturer's name and address. The whole book is a workmanlike job, excellent for reference and study alike.



# with SABINITE "M"

ACOUSTICAL

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In modern construction, noise is conspicuous by its absence . . . clatter and chatter belong to the "noisy-nineties" . . . yes—noise is on the way out, replaced by Today's Quiet Way . . . Sabinite "M".

—and what's more . . . "patchas-patch-can" patterns are on the way out, too . . . No longer need the decorative scheme be tied to a fixed ceiling design . . . for Sabinite "M" is just as beautiful and no more

noticeable than the plaster walls themselves. It follows flowing contours or simple, unbroken surfaces with ease and flexibility. All these advancements group themselves around the fact that Sabinite "M" is an acoustical plaster finish. Combines noise quieting, decoration, light reflection, and fire protection in one material. Can be used for new construction or reconditioning and sound conditioning present interiors as well. Sabinite "M" follows accepted

methods. Any good plasterer can apply it. All of this means that the

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#### For Building . For Industry

Gypsum · Lime · Steel · Insulation · Roofing · Paint

ARCHITECTURAL RECORD . JUNE, 1945 123

#### FOR BETTER BUILDING (Continued from page 26)

#### **Heat** Panel

Still another example of radiant baseboard heating is the Base-Ray Heat Panel, a unit expected to be available after the war for both new houses and modernization work.

The panel is so engineered, it is reported, that it is possible to heat the average room with a unit approximately the same size and no more conspicuous than the conventional baseboard which it replaces.

Mo-

The Base-Ray is a hollow cast iron unit, 7 in. high and 13/4 in. wide, connected with the usual heating boiler. It can be used on all types of hot water jobs, the manufacturers say-forced circulation and gravity, one pipe and two pipe-and can also be used on two pipe steam and vapor installations. It is contoured to resemble a typical baseboard, with standard wood moldings at the top and bottom to add to its naturalness.

SEND FOR THIS BROCHURE

Contains Facts - Details - Specifications Installations - Applications - Data Write Nearest Manufacturer

ASSOCIATE

ASONRY MATERIAL

#### Ma-Sai ARCHITECTURAL SLABS

The modern masonry facing slab. For new and old buildings. 2 inches thin. Exposed aggregate finish. Large slabs, up to 100 sq. ft. and more. Colorful -Decorative - Modern as Tomorrow.

#### MO-SAI ASSOCIATES

MO-SAI ASSOCIATES, founded to standardize and improve architectural slabs. The trade mark "Mo-Sai" Reg. U.S. Pat. Off. is the property of the Dextone Co.

Installation is said to be easy. Sections are joined by means of push-nipple construction with short tie bolts. Valves, ells and traps are connected at bottom opposite ends-as with tube type radiators. These connections are concealed by metal enclosure which is flush with the front and top of the panels.

Base-Ray panels will be manufactured in 24-in. and 12-in. lengths, will be shipped assembled up to approximately 10 ft. Burnham Boiler Corp., Irvington, N. Y.

#### **Hot Water Heating Controls**

A three-way thermostatic valve that recirculates hot water and corrects for outside weather conditions, reducing temperature differentials, is a new development called Sarcotherm. Introduced before the war, it obtained priorities because of its fuel savings, and can be specified and obtained now. Sarcotherm Controls, Inc., 53 W. Jackson Blvd., Chicago 4, Ill.



For easier laundry planning: a model layout with scale models of equipment

#### LAUNDRY LAYOUTS

A three-dimensional "Photo-Plan" service is now offered by a laundry machine manufacturer to help laundry owners and operators and architects in their laundry planning.

From sketches, rough plans or blue-prints, the engineers of the company will make a model laundry layout of the plan, utilizing scale models of machines and equipment to fit any individual floor arrangement and space limitations. This layout is photographed and the picture, together with complete specifications, is furnished to the architect. Troy Laundry Machinery Division of American Machine and Metals, Inc., East Moline, Ill.

#### FIRE EXTINGUISHER

A new fast-acting portable fire extinguisher, the Alfite Speedex, uses carbon dioxide as the extinguishing agent. Made in three sizes, Models 15, 10 and 4, the numbers indicating the pound capacity of the gas.

(Continued on page 126)



stics .. in Schools

After Victory, G-E Plastics Divisions will produce again for better living. The following list suggests the possible applications of G-E plastics in schools.

The General Electric Company offers architects, designers and engineers the service of its plastics technicians. These experienced men can give you technical advice and information on the use of all plastics materials—laminates, compression, injection and extrusion molded, low pressure and cold molded. The General Electric Company molds and fabricates all compounds that are on the market today and because of this is not limited to one particular material or manufacturing process. For further information write Section E-18, One Plastics Avenue, Pittsfield, Mass.

Hear the General Electric radio programs: "The G-E All-Girl Orchestra" Sunday 10 P.M. EWT, NBC. "The World Today" news every weekday 6:45 P.M. EWT, CBS. "G-E House Party" every weekday 4:00 P.M. EWT, CBS.



#### FOR BETTER BUILDING (Continued from page 124)

The unit is engineered to more speedily extinguish small oil or electrical fires, with no loss of the extinguishing gas on anything but the fire itself. The operating valve lever is directly above the carrying handle. It can be instantly opened by the pressure of the hand grip and as quickly closed by releasing the hand pressure while the operator is maneuvering his position. For continuous operation the D-yoke ring is slipped over the operating lever while it is depressed.

All models are approved by Underwriters' and Factory Mutual Laboratories. Models 4 and 15 also carry the approval of the U. S. Coast Guard. American - La - France - Foamite Corp., Elmira, N. Y.

#### **DAMPER QUADRANT**

Designed in a modern pattern for light industry and dwellings, a new damper quadrant comes in <sup>1</sup>/<sub>4</sub>-in. and



## THE SPENCER Cleaned SKYLINE

Because few mammoth buildings have been built during the past ten years, some people forget that the majority of the biggest and best buildings of every kind in the country are Spencer Cleaned, including those shown in the New York "Skyline" above.

The reasons include faster, better cleaning; quiet, easy operation and a lower net cost in the long run.

An architect, after using a Spencer for thirty years in his own home, says "It has always been more efficient than the small portables."

Savings in larger buildings are ten-fold. Less dusting, less floor wax used. Radiators, filters, and boilers easily cleaned. Rugs, paint, decorations last longer. Ask for the bulletins.



<sup>3</sup>/<sub>8</sub>-in. sizes, and is plated with rustresisting cadmium. Features claimed are ease of installation, dependability of operation and ruggedness of construction. Available now for immediate shipment. Western Air Devices, Inc., 1349 E. Vernon Ave., Los Angeles.



Shielded type of fluorescent fixture features easy maintenance, good looks

#### LIGHTING

#### **New Fluorescent**

A new shielded type four-40-watt fluorescent, the *A-3440 Permaflector Fluorescent Luminaire*, has Satinol finished contrasting glass panels, easily removable for maintenance. May be individual, continuous, direct ceiling or suspension mounted. The Pittsburgh Reflector Co., Oliver Bldg., Pittsburgh 22, Pa.

#### Lampholder

A fluorescent lampholder known as the *Twin Turret*, just announced, is said to be entirely new in design and construction. It is made for use with two 40-watt lamps, has a metal casing with insulated face. Starter sockets are an integral part of the lampholder, and are located between the lamps.

Features claimed for the new unit include easy mounting, simplified wiring and a new method of operation.

The Twin Turret can be mounted on any flat surface with two screws, preferably with lock washers under the screw heads. Tinned and stripped leads can be inserted through entrance holes in the face of the lampholder. Binding screws can then be tightened through the holes in the bottom to make permanent pressure contacts.

The method of inserting and removing the lamps is claimed to be a new contribution to fluorescent lampholder design. Each Twin Turret has two discs with holes for the pins of Mazda F lamps. Lamps can be inserted by depressing either disc with one end of the lamp until the other end clears the disc in the opposite lampholder and slips into place. Lamps can be removed by depressing the face of either Turret with one end of the lamp until the pins on the other end clear the opposite lampholder and slide out of place. General Electric Co., Bridgeport, Conn.

# Sit Down, Please

Have you ever noticed the contented look on a man's face when he sits down on a comfortable chair? **Goodform Aluminum Chairs** are primarily designed for Comfort. They are strong and sturdy. Their light weight makes them easy to move about. Their modern design and sparkling aluminum finish gives them a distinguished appearance. They require a minimum of maintenance and will serve for a lifetime.

After the war there will be a Goodform Aluminum Chair for every purpose — for offices, hotels, restaurants, clubs, hospitals, ships, trains and public buildings. There will be no better investment in seating than a

## **GOODFORM ALUMINUM CHAIR.**



METAL DESKS . ALUMINUM CHAIRS . METAL FILING CABINETS . STEEL SHELVING . FILING SUPPLIES . SAFES . STORAGE CABINETS

#### THE RECORD REPORTS (Continued from page 20)

#### PUBLIC WORKS ADVISORY COMMITTEE

Formation of a Public Works Construction Advisory Committee, composed of representatives of 11 national organizations engaged in or responsible for the planning, design, construction or operation of public works, has been announced by Maj. Gen. Philip B. Fleming, Federal Works Administrator, Col. William N. Carey, chief engineer, FWA, has been designated to act as contact between the committee and the administrator.

Committee members and the organizations represented are: Frederic Bass, American Public Works Ass'n.; E. Lawrence Chandler, American Society of Civil Engineers; F. Stuart Fitzpatrick, U. S. Chamber of Commerce; J. W. Follin, Producers' Council, Inc.; H. E. Foreman, Associated General Contractors of America, Inc.; Hal W. Hale,



# HUSKY WAR BABY

The Von Duprin devices born of the war are plenty tough! Ever since war took away the fine metals, these Victory model Von Duprins of sturdy malleable iron have taken punishment at the busy exits of schools, war plants, hospitals. On many a door they have been operated almost constantly, twenty-four hours a day, for more than three years.

One of these days the post-war Von Duprins, brilliant in drop-forged bronze and brass, will be available. But in the meantime it is well to remember the superb job that the unpretentious, plain black Victory model devices have done.

They have shown themselves to be thoroughly reliable, abundantly strong . . . truly husky war babies . . . and we are proud indeed to call them Von Duprins.



American Ass'n. of Highway Officials; S. Logan Kerr, American Society of Mechanical Engineers; Earl Mallery, American Municipal Ass'n.; and Maj. Edmund R. Purves, American Institute of Architects.

#### **PRODUCERS' COUNCIL**

#### **New President Elected**

L. C. Hart of New York, vice president of the Johns-Manville Sales Corp., was elected president of the Producers' Council at its recent annual meeting. He replaces Douglas Whitlock, general counsel of the Structural Clay Products Institute, president of the Council for the past two years.

Other officers elected are: Tyler S. Rogers, Owens-Corning Fiberglas Co., Toledo, Ohio, first vice president; Gordon C. Hay, Fiat Metal Mfg. Co., Chicago, second vice-president; Frank A. Sansom, Chamberlin Co. of America, Detroit, secretary; Allen E. Pearce, Armstrong Cork Co., Lancaster, Pa., treasurer.

#### **Six-Point Program**

One of the first acts by the new Council president was to recommend that the federal government adopt at the earliest practical date a six-point program designed to build up a normal supply of the building materials and equipment needed to permit urgently needed private construction. The six points are:

1. Manufacturers of building products should be permitted to utilize necessary materials and manpower for the making of patterns, for the reassembly of machinery, and for other basic production needs.

2. Building product manufacturers should receive assistance in obtaining priorities for additional machine tools and other production machinery and equipment.

3. Manufacturers should be provided with priority assistance for the construction required to readapt or modernize their buildings or to construct additions or new buildings needed to provide adequate plant capacity.

4. The WPB should rescind orders which restrict the manufacture of building products and which require the use of wartime specifications and substitute materials.

5. Adequate minimum amounts of critical materials and of manpower should be allocated to permit the manufacture of scarce or missing items.

6. The general inventory order should be relaxed in order to permit wholesalers and retailers of building products to build up the inventories needed before field construction can begin.

The same six recommendations were (Continued on page 130)

# S RVICISED PL\_DD\_C\_5 CORP.



# SERVICISED RUBBER TILE FLOORING

THE UNIVERSAL FLOOR for HOMES, SCHOOLS, COLLEGES, LIBRARIES, CHURCHES, HOSPITALS, STORES, THEATRES, OFFICES and PUBLIC BUILDINGS — stronger and warmer than Asphalt Tile. Many distinctive patterns from which to choose in STANDARD RUBBER, CORK and RUBBER, and RUBBERLOK TILE.

**CORK-RUBBER TILE,** is compounded of RUBBER and Pulverized CORK which is vulcanized and compressed into a flexible, smooth, and resilient floor. It

into a Hexible, smooth, and resilient floor. It is a warm and wear-resisting tile. This and the STANDARD RUBBER type are made in individual tiles with plain edges.

**STAIR TREADS**—Made of Asphalt Plank. A permanent and decorative material made of asphalt, mineral matter and a very tough fiber.

**INDUSTRIAL ASPHALT PLANK** is ready now for immediate shipment. Excellent for Basement Floors, Loading Platforms, Roofdecking, Patios and Locker Rooms.

**PARA-PLASTIC** is a strong and elastic adhesive. Maintains bond at very low temperatures.  $0^{\circ}$  F.



**RUBBERLOK**—is a tongue and grooved RUBBER TILE made in strips shown below. Easy to lay; just unroll and cement to floor.



SERVICISED PRODUCTS CORP. 6051 West 65th Street, Chicago 38, III. made by the Construction Industry Advisory Group and the Construction and Civic Development Committee of the Chamber of Commerce of the U. S. at a recent joint meeting.

#### **Farm Construction**

About \$650,000,000, according to a forecast prepared by the Market Analysis Committee of the Producers' Council, will be spent annually during the five-year period starting 12 months after the end of the war for the construction of new farm homes and for the repair of existing homes.

Although this is only about half as much per farm family as the average non-farm family is expected to spend for residential construction and improvements during the same period, Wilson Wright, chairman of the committee points out, the total farm expenditure would be 30 per cent greater than in the highest previous year.



## Use the time-proved, dependable Barber-Colman RADIO CONTROL for garage doors . . .



MILL

ST.

We designed, built, and installed Radio Control for garage doors in 1926 — nearly 20 years ago! Between then and 1936 we redesigned the units several times, simplifying the equipment and improving its dependability of operation. For the last 9 years (except for the war period) we have been offering a successful system which has proved its reliability in hundreds of satisfactory installations, With indications of a growing demand for this outstanding convenience in post-war homes, we urge you to investigate the distinctive features of the BARBER-COLMAN Radio Control. Your Barber-Colman representative has complete information or, if you prefer, we will be glad to send you our descriptive literature. Be ready to specify BARBER-COLMAN time-proved, dependable RADIO CONTROL for garage doors!

ROCKFORD.

FACTORY-TRAINED SALES and SERVICE REPRESENTATIVES IN PRINCIPAL CITIES BARBER-COLMAN COMPANY





New A.I.A. officers: vice president S. E. Lunden and president J. R. Edmunds (top, left to right); secretary A. C. Robinson and treasurer C. Cellarius

#### A.I.A. CONVENTION

The official annual meeting of the A.I.A. in Atlantic City on April 24 and 25 was, because of transportation difficulties and ODT ruling, necessarily a "rump session," limited to 50 accredited delegates. By arrangement, however, these delegates were empowered by the chapters throughout the country to express the will of the complete voting membership.

Business was carried on with dispatch and aplomb under the gavel of retiring president Raymond J. Ashton. Max Foley, of New York, reported on the findings of his Committee on Architectural Services and Fees, which advocated a cost-plus-fixed-fee type of contract wherever possible. Gordon Lorimer, chief of the Bureau of Architecture, New York City, gave a demonstration of dimensional coordination, illustrating his points with a model. Vice president Walter R. MacCornack set forth in some detail the proposal for a "Foundation for the Advancement of the Science and Art of Building," which contemplates an integration of the building industry, complete with research and with scientific as well as public information sections. Walter T. Rolfe, chairman of the Committee on Education, reported on the activities of that committee; Matthew Del Gaudio reported on Unification; Maj. Edmund R. Purves, the Washington representative, on activities in official Washington. The progress being made in cementing better archi-

(Continued on page 132)



ear & Company rchitect: E. Paul Behles & Associates ectrical Contractor: lorganstern Electric

Buhl Planetarium Architect: Ingham & Boyd Electrical Contractor: Hess & Barton

Dovenmuehle, Inc. Designer: Paul B. Stevens, Jr.

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#### THE RECORD REPORTS (Continued from page 130)

tectural relationships with government was explained by Roy F. Larson. Edgar I. Williams and Henry Saylor reported on the activities of the *Journal of the A.I.A.*, and Julian Oberwarth modestly explained the phenomenal growth of membership in the A.I.A. during the past two years.

The new officers elected at the meeting are: president, James R. Edmunds, Baltimore; vice president, Samuel E. Lunden, Southern California; secretary, Alexander C. Robinson, III, Cleveland; treasurer, Charles Cellarius, Cincinnati. Regional directors elected are: for the Middle Atlantic District, Louis Justement, Washington, D. C.; Great Lakes District, Ralph O. Yeager, Indiana; Western Mountain District, Angus V. McIver, Montana; Central States District, Arthur Ward Archer, Kansas City; Gulf States District, Richard Koch, New Orleans; Sierra Nevada District, Earl T. Heitschmidt,



HARTFORD 10, CONN.

Southern California; South Atlantic District, John L. Skinner, Florida South. Branson Gamber of Detroit was elected State Association Director, and William G. Kaelber of Rochester, N. Y., New York State Association Director.

#### EXHIBITIONS

#### Architects' Contribution to War

Soon after V-Day a great public exhibit providing visual evidence of the contribution which architects have made to the war effort, and the extent to which the profession is prepared to make an even greater contribution to better peacetime living, will be held in New York City, it is announced by Morris Ketchum, Jr., chairman of the Committee on Fields of Practice, New York Chapter, A.I.A., which will sponsor the exhibit. Both illustrative material and examples of products for building and equipment for living will be shown.

#### **Homes of Tomorrow**

A "Homes of Tomorrow" exhibition will be opened at the Newark (N.J.) Museum on Nov. 30. Preliminary plans include scale models by Raymond Barger, Normal Bel Geddes and Ruth Hornbostel, and compact and simple furniture, fireproof draperies, etc.

#### Andean Architecture

The Metropolitan Museum of Art, New York City, is currently showing an exhibition of photographs entitled "Architecture of the Andes." Subjects are ecclesiastical and domestic buildings of the Spanish Colonial period in Quito, Cuzco, La Paz, Lima and Arequipa, and plans for a civic center for Quito by Guillermo Jones Odriozola, a leading Uruguayan architect. The exhibition closes on June 24.

#### SUMMER COURSES

The Institute of Design, Chicago, has announced a summer session from July 2 to August 11. The curriculum will be an accelerated version of the regular day school of the Institute, and will be given simultaneously at the Institute in Chicago and its farm near Somonauk, Ill. Courses will include architecture and product design, drawing and color, basic workshop, cameraless photography (photograms), weaving and sculpture. For further information, address the Institute at 247 E. Ontario St., Chicago 11, Ill.

#### **NEW YORK REGISTRATION**

Two laws recently enacted in New York State are of interest to architects and engineers:

Professional Licenses—law continues (Continued on page 134)



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#### THE RECORD REPORTS (Continued from page 132).

to July 1, 1946, provision permitting persons inducted into military service and licensed to practice medicine, dentistry and other professions and occupations to apply for renewal of license without examination within three months after military service ends.

*Registration of Architects*—renewal application for registration or architects must be made on or before September 1st instead of June 1st.

#### CINCINNATI POST FOR PICKERING

Prof. Ernest Pickering, head of the Division of Architecture, School of Applied Arts, University of Cincinnati, has been appointed a member of the Cincinnati City Planning Commission, to fill the unexpired term of the late Alfred Bettman. The term ends on Dec. 31, 1947. Prof. Pickering is president of the Cincinnati Chapter of the A.I.A.



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For a portfolio of photographs showing other attractive homes, and full information for Architects, write Creo-Dipt Company, Inc., General Offices: North Tonawanda, New York.



#### **OFFICE NOTES**

#### **Firms Merge**

The firm of G. Richard Davis & Co., Inc., has joined Hegeman-Harris Co., Inc., 331 Madison Ave., New York. Mr. Davis has been elected vice president of Hegeman-Harris; Mr. John C. Hegeman continues as president.

#### **Company Expands**

Walter Dorwin Teague, industrial designer, has extended the services of his organization to the Pacific coast. The new Teague offices are located in the Title Guarantee Bldg., Los Angeles.

#### **New Firm Members**

William C. Schneider, Registered Architect of Milwaukee, has become an associate in the office of Frank J. Hoffman, architect, of 201 6th St., Racine, Wis. Mr. Schneider is a member of the Wisconsin Chapter of the A.I.A. and the State Association of Wisconsin Architects.

David Gordon, recently chief engineer for the Interchemical Corp., has joined the staff of Foster D. Snell, Inc., as director of engineering. Address: 305 Washington St., Brooklyn 1, N. Y.

#### **Succeeds Father**

William N. Gillette, son of the late Leon N. Gillette, has succeeded his father as a partner in the architectural firm of Walker and Gillette, 19 E. 53rd St., New York 22. A graduate of the Yale Architectural School, he has been with the firm for nine years.

#### Office to Be Reopened

Edwards and Jahn, architectural engineers, 58 College St., Providence, R. I., expect to resume active practice shortly, following their release from the Service.

#### New Addresses

N. A. Habersack, architect, has moved to Room 1218 Tribune Bldg., 154 Nassau St., New York City.

Because of a recent fire, Wadsworth, Boston & Tuttle, architects, have temporarily moved their offices from 57 Exchange St. to 98 Exchange St., Portland 3, Maine.

The American Society of Refrigerating Engineers has moved its national headquarters offices to 40 W. 40th St., New York 18, N. Y.

#### AMG RECONSTRUCTION

Under the guidance of the Allied Commission's 8th Army AMG, reconstruction of the 2,000-year-old Adriatic town of Rimini, Italy, is getting under way. Eighty-five percent of the town was destroyed before it fell to the Allies eight months ago.

(Continued on page 136)

This is one of a series of advertisements telling what leading Consulting Engineers think of modern steam heating.



Edward E. Ashley, Consulting Engineer, New York, N.Y. Member of ASME, ASH&VE, and AIEE.

"In school heating, the different occupancy requirements of classrooms, study halls, dormitories, gymnasiums and other sections—and often varying temperatures dictated by use—present problems that call for control (1) at the source and (2) at the several zones," writes Edward E. Ashley. "Moderate, closely-regulated steam heat solves these problems and, at the same time, provides highly efficient operation and greatest comfort...Steam is the accepted medium for school heating—because it is flexible; because it can be more perfectly balanced than other media; and because it can be accurately controlled...When War Economy puts the emphasis on Fuel Conservation, the Heating Industry emphasizes *Control.*"

Following are some of the schools for which Edward E. Ashley has specified Webster Systems of Steam Heating: Lincoln School for Teachers' College, New York, N.Y.; Albany High School, Albany, N.Y.; Eastview Junior High School, White Plains, N.Y.; Battle Hill Junior High School, White Plains, N.Y.; Junior High School, New Rochelle, N.Y.; Glenfield School, Montclair, N.J.; Columbus High School, Columbus, Ga.; Cypress St. School, Greensboro, N.C.

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#### THE RECORD REPORTS (Continued from page 134)

Even before the town had fallen, plans for its reconstruction had begun, under the leadership of Commendatore Elio Alessandroni, a local contractor. Then the AMG moved in, headed by Lt. Peter Natale of Hoboken, N. J., who immediately called a meeting of all the local architects, engineers and contractors. The new town plan was enthuiastically accepted, and the townspeople got to work cleaning up the bomb damage and shell destruction.

The work is being done on a wholly volunteer basis; a free technical school, the first in Italy—sponsored by the AMG and paid for by local professional men—has been opened.

The final design of the new town plan was made by Attilio La Padula, prizewinner in the town planning competition of the University of Bratislava in 1940. The plan will cost \$200,-000,000 and will take 12 years to complete. The rebuilt city will cover an



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#### LEON N. GILLETTE

Leon N. Gillette, a member of the New York architectural firm of Walker & Gillette, died on May 3 following a long illness. He was 67.

A native of Malden, Mass., Mr. Gillette received a certificate in architecture from the University of Pennsylvania in 1899, and a diploma from the Ecole des Beaux Arts, Paris, in 1903. He was connected with the firm of Warren & Wetmore from 1903 to 1906, when he and A. Stewart Walker formed the partnership of Walker & Gillette. Their work included banks, hospitals, office buildings, apartment houses and hotels, among them the National City Bank Buildings at Canal Street, New York, in Havana, Paris, Buenos Aires, Panama and Puerto Rico; the Grasslands Hospital buildings, East View, N. Y.; the County Center, White Plains, N. Y.; Playland Amusement Park, Rye, N. Y.; and the city of Venice, Fla., with its hotels, schools, stores and railroad station.

Mr. Gillette was a former president of the New York Society of Beaux-Arts Architects, a fellow of the American Institute of Architects, a member of the Architectural League of New York and of the Beaux Arts Institute of Design.

#### **JOHN A. HOLABIRD**

John Augur Holabird, a member of the Chicago architectural firm of Holabird & Root, died in Chicago on May 4, his 59th birthday.

. Mr. Holabird and his firm were the architects for a number of well-known projects, including the U. S. Federal Loan Agency and the Statler Hotel in Washington, D. C.; the Army Air base on Jamaica, B.W.I.; the Chicago Daily News Building, the Palmer House, Stevens Hotel and Hotel Sherman in Chicago. Mr. Holabird was chief architect for the Jane Addams and Trumbull Park housing projects in Chicago. A graduate of West Point with the

A graduate of West Point with the class of 1907, Mr. Holabird was a fellow of the American Institute of Architects and a member of the Chicago Plan Commission.

#### N. MAX DUNNING

N. Max Dunning, architectural advisor to the commissioner of the Public Buildings Administration, designer of the Furniture Mart in Chicago, and one of the organizers of the Architec-(Continued on page 138) "Fumes and blistering heat from

A IY HEAT TROUBLE our forging and heat treating operations were cutting our production of tank shafts, torsion bars, axles and other necessary military parts. Employees could work only 30 minutes per hour. Absenteeism was high, even in winter . . . About two years ago, we installed a BURT Monovent Continuous Ridge Ventilator. It reduced the temperature at working levels 20° to 30° and eliminated all fumes. We have had absolutely no ventilating trouble since! Workmen turn in a full hour's production, absenteeism is low and our output has increased in proportion."

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#### THE RECORD REPORTS (Continued from page 136)

tural League of America, died in Washington, D. C., on April 19. He was 72.

Mr. Dunning, a well-known housing authority, entered government service during World War I as a member of the Requirements Division of the U.S. Housing Corp. He remained in government service until his death, holding various architectural and housing posts in federal agencies.

Born in Kenosha, Wis., Mr. Dunning attended the University of Wisconsin from 1891 to 1894, and in 1900 won the first traveling scholarship of the Chicago Architectural Club, which enabled him to continue his architectural studies abroad. Among the many buildings of his design are the Winton Hotel in Cleveland (now the Carter Hotel), the Lake Shore Club and the Hayes Hotel in Chicago, and the National Cloak and Suit Building in Kansas City. He was a fellow of the American Institute of Architects.

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THE RECORD REPORTS

(Continued from page 10)



British Official photos Section of an Airoh house (kitchen and living room) is lifted from the trailer

so badly damaged that they are uninhabitable. To help meet the resultingly acute housing shortage, the British government at present plans to erect 145,000 prefabricated houses, including the 30,000 being built here.

One of the new types of prefab developed in England is the Airoh aluminum house, designed by the Aircraft Industries Research Organization on Housing. It is made in four sections, each complete in itself. The sections are coupled by interlocking fastenings within a few hours, and when services have been joined up and loose furniture moved in, the house is ready.

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