To recommend a fine tile is a good thing. To recommend a fine tile, skillfully installed, is even better.

That’s what you do when you recommend color-balanced Suntile.

Suntile’s authorized dealers are carefully selected for their business experience and integrity. They are proud of the franchises they hold. Every installation job is to them an important one.

One good reason for their pride is Suntile itself—a tile rigidly manufactured for extra quality in form and finish—a tile with color-balance which makes color blends so easy to achieve.

For better tile—better installation, let us send you the name of an Authorized Suntile Dealer. He can show you real clay Suntile in 16 wall colors. In addition, he can show you impervious unglazed ceramic mosaic Suntile in 15 colors—and Suntile Camargos in 10 colors—both in modular sizes.

See Sweet’s Catalog for more complete information. The Cambridge Tile Manufacturing Company, Cincinnati 15, Ohio.
The Architectural FORUM
MAGAZINE OF BUILDING
MAY 1948

NEWS

LETTERS

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REVIEWS


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PLAN SECTION CORNER POST SHOWING CEMESTO APPLICATION

31

35

40
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The Architectural FORUM May 1948
FOR NATIONALLY ADVERTISED

Certified* INSL-COTTON INSULATION

Rapidly taking the lead in the insulation field, Insl-Cotton, America's original flame-proof, fire-retarding cotton insulation, is gaining nation-wide acceptance from the architect, contractor, builder and homeowner alike. With strong attention-getting ads appearing in leading national publications, Insl-Cotton's story is being told from coast to coast. Architects are specifying Insl-Cotton because its superior advantages make it the ideal insulation for homes and industry.

MORE AND MORE ARCHITECTS ARE SPECIFYING INSL-COTTON BECAUSE OF THESE OUTSTANDING ADVANTAGES

• MOST EFFICIENT TYPE INSULATION
Tests made in leading laboratories and by the U.S. Dept. of Agriculture prove that cotton insulation is from 4% to 36%, more efficient than any other type of available insulation when made according to the 7d specifications. Also refer to A.S.H.E. 1947 Guide, page 119, Table 2. Insulation batt density 0.875 lb. cu. ft., 72°Fk. K factor 0.24.

• LOW LABOR COST
Labor cost for installing in an open attic is about 50c per square foot. New labor can easily do the job—no special tools are needed.

• ALL NEW MATERIAL
Insl-Cotton contains no second-hand material—no reworked cloth or used mattresses.

• MOISTURE AND INSECT REPELLENT
Cotton fibers have no capillary attraction for moisture. Caution is exercised in making Insl-Cotton to prevent removing the natural oil from the fiber. No insect or rodent will eat mature cotton. Insl-Cotton is treated to make it insect and rodent repellent.

• READY AVAILABILITY
Several hundred fine supply houses carry Insl-Cotton. If no supplier is near you, write us and we will arrange for prompt delivery.

• PERMANENTLY FLAME-PROOFED
Under normal conditions, Insl-Cotton's flame-proofing lasts indefinitely.

• EXCELLENT FOR SOUND PROOFING
Cotton is a natural sound absorbent. It ranks among the finest sound deadening materials between walls—floors and ceilings.

• WON'T SAG OR SETTLE
Insl-Cotton is laminated about 25 layers per inch thickness. One pound of Insl-Cotton will hold up eight times its own weight without the vapor barrier. Insl-Cotton passed one of the severest tests in the Texas City blast. Though parts of roofs and walls were blown away, the backing blown off, strips as long as eight feet hung from the ceilings, intact. The Houston Post said, "Insl-Cotton was one of the few things to withstand the earth shaking blast." Resilient, full-bodied Insl-Cotton holds together.

• EXTREMELY LIGHT
Weights about 118 lbs. per 1000 sq. ft., 3 in. thickness, including vapor-proof barrier.

• HEAVY VAPOR-PROOF BARRIER
Unless otherwise specified, all Insl-Cotton is attached to 50 lb. kraft, wax-treated asphalt coated vapor-proof barrier with Staples for tacking to studding.

• UNIFORM THICKNESS
No high or low spots. Mechanically laminated to avoid human error.

• STANDARD WIDTHS AND THICKNESS
Insl-Cotton is carried by supply houses in the standard 16", 20" and 24" widths. 36" and 48" widths can be supplied. It is made in 1", 2", 3" and 4" thickness. The 3" thickness has about the same insulation value as 3 ½" to 4" ordinary insulation. Refer to A.S.H.E. 1947 Guide, pages 119 and 120.

• IMPROVES WITH AGE
Heat, agitation and vibration causes Insl-Cotton to expand and grow better with age—many other types of insulation settle.

• EXCEEDS GOVERNMENT SPECIFICATIONS
Insl-Cotton exceeds Government specifications for 7d, FHA, FPHA and FH-I-528 requirements.

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Check here: [ ] Distributor [ ] Dealer [ ] Architect [ ] Building Contractor

THE ORIGINATORS OF FLAME-PROOF, FIRE-RETARDING COTTON INSULATION
Yes! It's exclusive with Kelvinator! All of Kelvinator's 5 new 1948 Refrigerators from the 7 cu. ft. to the largest size are one width... 4 Ranges and a Home Freezer are one width. This gives planners a uniform measurement for designing kitchens — and gives users a wide choice of Kelvinators within their budgets without a change in floor plan!

Ideal for big kitchens is Kelvinator's new kind of refrigerator... refrigerated from Top-To-Bottom. Features 8½ cu. ft. within the shelf area, plus approximately 2 cu. ft. used by the new refrigerated Fruit Freshener... all this in a Kelvinator taking no more floor space than many refrigerators of smaller capacity.

Companion appliance is Kelvinator's "Automatic Cook" Electric Range, now with all controls on the new back panel... easier than ever to see and use. "Up-Down" unit converts from deep well cooker to 4th surface unit. Giant double unit oven... new Electric-Fast tilt-up surface units... pressure cooker available for deep well! For big kitchens, too, include the Kelvinator Space-Saver Home Freezer, 6 cu. ft. capacity, but uses only a minimum of floor space!

For Smaller Kitchens...
"Space-Saver" Package Gives Small Kitchens Big-Kitchen Advantages!

"Space-Saver" Refrigerator, 24" wide, is full 6 cu. ft.—holds 50% more food than the previous model of identical outside dimensions. Companion range is only 21" wide—new design permits installation flush against wall. Stars a full-size double-unit oven... three new type tilt-up surface units — one 8", two 6". Kelvinator quality throughout!

For further information, write Kelvinator Division, Nash-Kelvinator Corporation, Detroit 32, Michigan.
BUILDING MONTH. This spring the ancient thump of the builder's hammer and the whine of the builder's saw was louder than ever before up and down the U. S. March housebuilding starts had jumped to 67,000 — as compared to 58,500 last year. F. W. Dodge said that, by dollar value, nonresidential building in the first quarter of the year was 42 per cent above last year's pace. Although a political row in Congress threatened to shut off housebuilding money and many a builder was hesitating on new starts, most other signs pointed to an increased volume of building in both residential and non-residential categories. The biggest reason: Building's customers, both for houses and all other kinds of construction, were no longer waiting for prices to drop off. The plain fact was that ERP and national defense spending would, if anything, make prices move in just the opposite direction.

The strange gray boom that was neither the black of war nor the white of peace meant, among other things, continued high level employment, fat pay envelopes and no fall-off in the demand for consumer goods. And all of this meant building: houses in lower-price ranges to serve the part of the market not yet served, housing for military personnel to speed up recruitment (Representative Bates said that "tens of thousands whose enlistments are running out will not sign up again unless their housing facilities are improved"), stores for the new residential neighborhoods and for the downtown merchants now moving into a normally competitive market (see pp. 93-94). The government's industrial mobilization plans meant both remodeling of old war plants and the building of new ones.

Income tax reduction would unleash an estimated $5 billion for new investment; much of this would find an outlet in building new capital facilities, while further tax incentives might be enacted by Congress to draw some of it into much-needed rental housing.

There was no doubt that Building's market was firmer than ever before. And there was no doubt of the industry's capacity to produce right up to the new demands of the market—unless defense needs drained away essential materials. Loss of steel production in the coal strike lengthened the shadow of steel allocation—but Big Steel's price cut would help Building to hold its own price line, already bumped up by the freight rate increases. Big new steel buyers loomed in the U. S. market as President Truman proposed a $500 million loan to aid Latin America in industrialization.

The first national defense program to step on private building may be the stockpiling now being gingerly carried on by the Munitions Board. The Board has been accumulating reserves of strategic materials that have to be imported. So far the Board has been diffident about competing with business, and has refrained from buying items that play a big role in the domestic economy. Copper is one of these and an important factor in building. From now on Board policy will be tougher; it will start brisk buying of copper and any other essential items. Its new stockpiling purse will be three times bigger than the one it had this year. Against these material worries stood the report of the producers, backed by Commerce Department surveys: production of practically all building materials is at a record high.

WASHINGTON

HOUSES ARE POLITICS

Private housebuilding credit blocked as Congress fights over T-E-W bill.

Despite such distractions as the opening ballgame of the season and Senator Taft's withdrawal to Ohio for his contest with Stassen in the delegates' primary, the T-E-W comprehensive housing bill, as amended and updated by Senator Flanders, passed the Senate last month (see summary, page 11). But it did so only after bitter and lengthy debate on the Senate floor and the giddiest legislative acrobatics seen for many a month. The opposition to the bill, which was spearheaded by Senator Cain (Rep., Wash.), did not give up even after it had passed the Senate, but tried to gild the main bill by proposing another to renew FHA's Title VI for one more year (this is accomplished by Title I of the main bill).

Taft, Ellender, Wagner and other bipartisan backers of the bill have tried since 1945 to get it through Congress. Time after time, it has surmounted slugging opposition in the Senate—only to be bottled up in Jesse P. Wolcott's House Banking Committee. This time Wolcott had promised to get some kind of housing bill on the House floor before Congress adjourns.

Strategy from the beginning had been to give the bill something for almost everybody and so bring out the most votes. To sweeten the bill's controversial proposal for 500,000 units of public housing over the next five years, one of the new amendments called for renewing FHA's Title VI, the financing instrument now used by the bulk of the private house building industry. The House had earlier passed a separate bill to renew Title VI for a year. The Taft-Flanders-Tohey group wanted to get a 30 to 60 day emergency Title VI extension through the Senate, contending that this would tide things over while the House acted on the main bill. But when their proposal came up on the Senate floor at month's end, Senator Cain drove for an amendment to renew Title VI for a year. T-E-W backers believed such separate action would cut down the steam back of their bill and opposed it. While the Senate slugged this out, Title VI, which expired on April 30, was allowed to lapse completely. The 30 to 60 day extension was likely to prevail in the Senate, but would
In the end, it would depend upon the House, and chiefly upon round, imper­
tparable Chairman Wolcott, who voted for
the original USHA Act in 1937. Wolcott is
 distrustful of public housing zealots and
has already hinted at some compromises he
would like to see made if any more public
housing is voted. He thinks that eligibility
ought to be limited to welfare families, in­
stead of Taft’s rule of the “lowest income
families regularly employed.” He also
thinks that funds should be distributed by
the states and maybe allocated on a match­
ing federal-state-municipal basis, like pub­
lic road allocations. He is particularly anx­
ious not to do anything that may interrupt
the private building industry in its present
production rate of one million units a year.
He has promised that everybody will have
a chance to speak his mind on the bill at
the House Banking Committee hearings
which started the first week in May. He
also plans to bring the bill on the House
floor under an “open rule,” which means
that amendments can be freely offered from
the floor.
All this means that the bill may be de­
feated, if by nothing else, by the timetable.
At least three weeks of hearings will be re­
quired, another week to write the House
version of the bill, another week to get it
on the floor. This means that the House
bill cannot likely come up for a vote before
mid-June. The Republican National Con­
vention opens June 21, and Congress hopes
to adjourn before the end of June. Dif­
ferences between the two Houses are so great
that a conference committee would have to
rewrite the legislation completely before
adjournment—or quietly let it die once
more.

**PREFABRICATION**

**BIG CAPITAL**

Lustron is the only one to raise it,
but is it big enough?

When workers started rolling some $15 mil­
ion worth of heavy machinery into the
Lustron plant at Columbus last month, the
rumble of the big steel presses echoed far
beyond the vast empty acreage of this war­
time aircraft plant. To some it sounded like
the first convincing rumble of the long­
promised, long-coming industrial revolu­
tion in housing.

Lustron’s Carl Strandland was shooting
at 4,000 enamelled steel houses a month.
Unlike other gamblers in this hazardous
but fantastically promising field, he was
not starting small and hoping to get bigger.
By engineering imagination, by an already
established record of extraordinary indus­
trial achievement (he ran the Oliver Farm
Equipment Co. from $25 to $125 million a
year), by a slugging kind of personal drive
that refused to acknowledge a licking—this
engineer-inventor had assembled the big­
gest chips yet staked on the industrialized
house. And he was showing them all in.

The great body of theory accumulated by
several decades of technical and economic
thinking about the factory-built house
points to at least one over-riding assump­
tion: the initial stake must be terrifically
high. To connect with the economies in­
herent in industrial production, a factory
house operation must start on a scale un­
dreamed of when Henry Ford ordered his
first wheels from the bicycle makers. The
first Fords may have cost three times as
much as a horse and carriage, but there
were a number of buyers who thought they
were three times better. Not even the most
enthusiastic proponents of the factory-buil­
t house see anything on the horizon that can
be claimed three times better than the
product of the big operative housebuilder.
who has set up mass-production on the
building site and introduced many factory­
assembled parts (see p. 16). Furthermore
—and this is crucial—the factory-built
house must immediately undercut the
operative housebuilder’s price to grab a
market big enough to sustain production.

Although by now many have demon­
strated* to their dismay that the initial
capital required to float a factory house is
enormous, nobody has yet found out exactly
how enormous this may be. Whether it will

---

*Although by now many have demonstrated...
turn out to be somewhere near the roughly $18 million so far staked on Lustron or something closer to $80 million is a question that the next six months will answer.

There were already signs that Lustron, only prefab firm to qualify for a really sizable RFC loan ($15½ million) under the short-lived Veterans Emergency Housing Program, needed still more. Although RFC denied it had been asked, Washington buzzed last month with the report that Lustron wanted RFC to advance another $51½ million. Reason: it had been obliged to pay premium prices to get immediate delivery on plant equipment. But RFC claimed its authority to make such loans had expired—by passing the question of protecting its original investment.

Lustron could expect to get some additional production financing from banks with the help of government loan insurance under FHA's new Sec. 609 (Title VI). But before this financing instrument could start functioning, Strandlund would have to solve the giant problem of creating a dealer organization capable of moving 4,000 houses a month onto foundations. Hope is that the big operative builders will be interested. To supply dealers with display models, an interim production program of 100 units is under way—with all parts subcontracted to other fabricators.

Although Lustron's structural system has not yet been finally approved by FHA's technical division, FHA engineers and others were enthusiastic about it. (Some 200 engineers and designers are now at work in the Lustron plant on details of the single model, to be offered in four colors.) A much bigger uncertainty is the attitude FHA may take on the dealer-purchase contracts which have to be offered as collateral for 609-insured loans. So far, FHA has been both dilatory and supercautious in passing on these middlemen. General Homes of Columbus, which spent several million on an aluminum house, was cautious in passing on these middlemen. To supply dealers with display models, an interim production program of 100 units is under way—with all parts subcontracted to other fabricators.

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Steel might turn out to be a bigger problem than financing. Lustron was spending $100,000 a month for double-page ads in leading consumer magazines. In Washington, these ads looked like a bid for orders and market acceptance to back up a request for steel under the voluntary allocation program run by the Commerce Department.

While these and other hurdles remained, Lustron looked as if it would be timed right for a boost from a powerful source it hadn't counted on: government financing for veterans' cooperatives (a factory-built house would be the very thing for inexperienced cooperative building groups). The American Legion's housing bill to this end was gathering strength in Congress (see page 14).

* Among them, Bucky Fuller's Dymaxion House, which failed to raise more than $345,000 in private financing, and was turned down for an RFC loan.

MAIN PROVISIONS OF THE T-E-W HOUSING BILL (S.866) as amended by Senator Ralph Flanders and passed by the Senate.

NATIONAL HOUSING POLICY. "The Congress hereby declares that the general welfare and security of the Nation . . . require a production of residential construction and related community development sufficient to remedy the serious cumulative housing shortage, to eliminate slums and blighted areas, to realize as soon as feasible the goal of a decent home and a suitable living environment for every American family, and to . . . enable the housing industry to make its full contribution toward an economy of maximum employment, production and purchasing power."

TITLE I. Extends FHA mortgage insurance on Title VI emergency-aid basis for another year, with special emphasis on rental housing. Modifies both Title II and Title VI to facilitate transition from emergency to long-term program. Provides insurance for production loans to prefabs and to large-scale housebuilders. Authorizes an increase of ½ of one per cent in the interest rate on FHA Title VI and on GI loans.

TITLE II. Establishes a secondary market for both FHA and GI loans in the Housing and Home Financing Agency for a two-year period.

TITLE III. Authorizes the HHFA to undertake technical housing research with the hope of reducing building costs and to correlate research done by private groups.

TITLE IV. Authorizes 90 per cent FHA insured loans, with 40-year term and 4 per cent interest, for low-cost houses and for cooperative mutual ownership plans. Authorizes 95 per cent loans, with 40-year term. 4 per cent interest, for veterans' cooperatives. Authorizes yield insurance for large-scale investors in rental housing. A minimum return of 2 ½ per cent per year on outstanding investment (plus 2 per cent amortization of the full capital investment) would be guaranteed those willing to limit annual return to from 3 ½ to 5 per cent.

TITLE V. Authorizes grants to cities to cover two-thirds of the loss suffered in buying and clearing slum areas and reselling the land for private redevelopment. Approves $100 million a year for five years in grants to cities; $200 million a year for five years in loans.

TITLE VI. Provides for 500,000 units of public low-rent housing over the next five years, with annual federal contributions to subsidize the low-rent to run for 40 years as compared with present statutory maximum of 60 years. Some increases in old USHA building cost limitations are provided.

TITLE VIII. Authorizes federal loans to farm families for housing, with 4 per cent interest and a 33 year term. Where needed, some contribution may be given. Authorizes special loans and grants for improvement and repair.

TITLE VIII. Provides 50 per cent of cost of housing for paraplegic veterans.

TITLE IX. Makes administrative and miscellaneous provisions.
If the poets still suppose that each man kills the thing he loves, they have yet to
stantly increasing scale. Short of assuming
affair of the American and his automobile.

Here the very reverse of the poetic proposi­
tion seems to be taking place on a con­
stantly increasing scale. Short of assuming
that Americans general!, have some kind
of the automobile because they have never
believed there is any cheaper way they can
have it.

Strenuous municipal efforts in “traffic en­
gineering” (expressways, tunnels, parking
restrictions, bigger and bigger parking lots,
etc.) have all been focused firmly on the
automobile—with complete disregard of
the approximately 50 per cent of the urban
population who do not own automobiles.

These devices have simply multiplied the
“traffic problem.” By making it easier to
drive into town (and easier to park after
you get there), they have persuaded thou­
sands of additional car owners to do so.

Dead Halt. In New York, most traffic-
harassed of all U. S. cities, an elaborate
circle of such traffic control devices has
clogged midtown traffic to a point where
it is possible to walk the width of the
island of Manhattan in about the same
time it takes to drive this three-mile dis­
tance. Further “traffic improvements”
such as the proposed 2,000 car park in the
new Madison Square Garden—may eventu­ally succeed in slowing Manhattan traffic
to a dead halt. And unless the municipal
approach to traffic planning is changed
dramatically, the pedestrian may have to wait
for the day of the dead halt for a chance to
walk around his city without risking his
life and limbs.

In contrast to the steps actually taken
by municipal authorities, city planning
theoricians have long advocated separa­
tion of people and automobiles.* Proposals
to this end have ranged from elevated
sidewalks to a system of ring roads and re­
integrated neighborhoods like the London
County Council plan. Such proposals
stumble first on the financial and legal
blocks to extensive rebuilding. But they
also stumble on the automobile owner’s re­

* E.g., Herrey and Pertzoff, An Organic Theory
of City Planning, FORUM, Apr. ’44.

fusal to recognize that the automobile is an
inefficient way to move around in crowded
city streets.

Walking Can Be Fun. Last month archi­
tect Simon Breines (Pomance & Breines,
New York) and sociologist John Dean
offered a simple prescription for Manhat­
tan’s throbbing traffic headache. Unlike
many planning proposals to separate auto­
mobiles and people, the Breines-Dean plan
could be tried out on an experimental basis
at virtually no cost and put into effect
gradually with relatively little expenditure.

Their study was financed by a grant to
Breines from the Arnold W. Brunner
Scholarship Fund of the N. Y. Chapter of
the American Institute of Architects.

Breines and Dean are both young and
energetic. This may have something to do
with the start of their plan: the notion
that it is really a lot of fun to walk where
walking is pleasant. “Why don’t we solve
the traffic problem by walking?” they
asked. “Why not make the Fifth Avenue
shopping section from 59th to 34th street
a pedestrian island—with all vehicular
traffic blocked off at cross streets?”

Replace the Auto. The planners visioned
traffic-free Fifth Avenue as a 100 ft. wide
walkway—where shoppers could swing
along past glittering shops and show win­
dows, stop at one of the sidewalk cafes for
which there would now be room, rest on a
bench in the new park-strip down the mid­
town traffic blocked off at cross streets?”

Walking along traffic-clogged city
streets isn’t ordinarily much fun, as
the Fifth Avenue scene above shows.
Traffic lights halt the pedestrian at
every block: Diesel and gasoline fumes
fill the air.

Walking along traffic-free Fifth Ave­
une is something a lot of people like to
do for pleasure, according to photo at
right which shows the 100 ft. wide
avenue with traffic blocked off for
Easter parade.

But what about old people, people who
have a lot of packages to carry, people who
simply don’t like to walk? What about
deliveries to the buildings on the blocked
off streets?

Breines and Dean meet these objections
by proposing a new form of transport.
They argue that the automobile and truck
are no longer any good for rapid door-to-
door transport. “Why not substitute a ve­
hicle that can mingle with the pedestrian
and not mangle him? Why not adapt the
electric tractor-trams used in railway sta­
tions? Electric trams are small, slow-mov­
ing, flexible in choice of pathway, and
sinuous in operation. They could be both
shopping bag and umbrella for the shop­
ers who tire of walking and a way to de­
iver all but occasional heavy goods.”

Other logical places for pedestrian is­
lands, the planners say would be:
• The Times Square amusement area—
where daily pedestrian traffic amounts to
around 500,000.
• The Herald Square shopping center
(Macy’s and Gimbel’s) and the adjacent
garment trades center, where the major
problem is the delivery of goods.
• The City Hall administration center.
• The Wall Street-Nassau financial
district—already exclusively pedestrian at lunch-
time and where “runners” have long been
the fastest means of transport.

Permanenf operation of these pedestrian
islands would require “portals” or transfer

(Continued on page 14)
full-time operation of pedestrian islands in midtown New York area might require one crosstown expressway for automobiles. Planners suggest that city might eventually acquire a string of end-to-end blocks cutting across the island and open a vehicular expressway through this area. Elevated pedestrian thruway to link all islands would be built above. Vehicular expressway could overpass pedestrian islands at Broadway and Fifth Avenue.

Successful operation of pedestrian islands would require portals or transfer joints. Planners propose developing these in the middle of alternate side blocks as a vehicular way through. Vehicles entering on one-way street would turn into the portal tunnel, discharge passengers or goods at a transfer platform and then go through and out via the next one-way street. Goods could be reloaded here on tractor-tram for delivery within island.

Fifth Avenue pedestrian island might get a park-strip down the middle, look something like Rockefeller Center plaza (above).

Tractor-tram proposed to carry shoppers who prefer not to walk would be like electric trams used at N.Y. World’s Fair.

Atlantic City boardwalk is evidence that mechanized city dwellers still like to walk—where walking is pleasant.

Todd Webb—Fortune

Truck parked on diagonal for unloading can stop all traffic on street. Trucks cruise waiting for curb space.

In pedestrian islands, goods would be delivered by trams like this, and sorted to serve each building in order.

Separation of people and automobiles will end traffic jams like this.
points. "Such portals could comprise a vehicular way through the middle of alternate side blocks. (See cuts, p. 13.) The portal would enable the island's tractor-tram to unload passengers or goods and also act as a sorting center for systematized delivery of goods within the island. Some might include storage space, where standard goods would await an order."

Closed-off blocks of cross streets intersecting the lengthwise "islands" would provide for distributed parking—a need not served by large parking developments which act as an additional traffic clog at the point of access.

Motorized Pushcart. Eventually pedestrian islands might be extended to residential areas—a planned application of the closed "play street" principle. Breines and Dean think this would involve a fairly elaborate use of the tractor-tram, and suggest that delivery service from grocery, drug and other neighborhood stores could be systematically pooled—like the United Parcel Service cooperatively run by the big department stores. The tractor-tram might even become a mobile, circulating shop—motorized descendant of the pushcart man.

By long-range city planning, residential islands could gradually be grouped around an "administrative-service-center" island. "By excluding vehicular traffic from this center, we regain ground for a market place that can be free and safe for foot movement. The shopper can range at will and fearlessly unhook the roaming small fry, to dart about safely among pedestrians and peddle wagons. A rapid transit station might be in this center area, since the gravitational pull of boarding and alighting travelers is attractive to shops and small businesses. The banks and utility companies quite likely would locate branches here.... Police, fire, health and other community services would be related and located in this center.

"Making 'Main Street' a pedestrian island would not require complete rebuilding of the existing shopping district; merely closing the artery to vehicles would benefit shoppers and shops alike. By a proper leasing here and there of a little regained public street domain for street cafes, nurseries, and other community enterprises, the administrative service center would probably be self-financing."

How much of a dent the imaginative Breines-Dean plan would make in New York City traffic action remained to be seen. Traffic experts had plenty of questions. Among them: Wouldn't blocking off traffic from the pedestrian islands increase traffic congestion in adjacent streets? Breines and Dean thought not and argued that there would be an absolute reduction in the volume of vehicular traffic due to the new system of delivering both people and goods by tractor-tram from centralized distribution points or portals.

Critics feared that the sorting and handling required to transfer freight from trucks to tractor-trams would be too expensive to make the plan feasible. But the planners believed their system would be cheaper than the present one, which ups the cost of delivery by the time lost in traffic jams and the time spent waiting for unloading space at the curb.*

$1 a Day. The Fifth Avenue Bus Co. was not likely to be charmed by a plan to cut 25 blocks out of its franchise, but might be won over by the tractor-tram franchise. These and other aspects of the plan were certain to be threshed out in the discussions the planners were having with merchants' associations, which know that traffic jams mean a steady loss of customers to suburban, easy-to-reach shopping centers (see below), and with the powerful Port of New York Authority, vitally interested in getting something done about the traffic condition that is costing New York City an estimated $1 million a day. But, whatever questions might be raised about the Breines-Dean plan, nobody could deny the basic sickness which it hoped to cure—the steady decline of our cities as pleasant places in which to live, work and shop.

* A research check by Fortune magazine discovered that one truck driver spent an eight-hour day covering four miles.
THE WIDE GULF
Western architects find Russian notion of beauty hard to understand.

Last May the British Architectural Review published three articles by three leading Russian architects. The Review was pleased to have this good sample of postwar reconstruction on "one-sixth of the world's surface," impressed by the evident progress in planning methods and organization, depressed by the artistic taste shown in the visible results of such planning. In a thoughtfully worded preface, the Review said that "according to sophisticated European standards, Russian buildings appear bourgeois and retrogressive" and wondered "whether this is the inevitable result of extensive State patronage?"

Slander? Last month the Review's fairly soft-spoken question brought down a sharp clap of dialectical thunder. From the three Russian architects came this angry letter: "Interpreting the laws of hospitality in a manner peculiar to themselves, the editorial staff . . . supplied a preface, in which they make slanderous and groundless attacks on the whole of Soviet architecture and the Soviet people . . . The authors of the preface [say] there is no such thing as Soviet architecture as a great organically developing socialist art, and that what is being done in the U.S.S.R. . . . is a deliberate concession on the part of the statesmen and architects to the Soviet people who, according to the allegations of the authors of this slanderous preface, are too immature to understand real architecture and so forth. All these slanderous fabrications have a purpose—to belittle the great Soviet people and its new socialist culture."

The Review, with gentlemanly composure, gave the Russian letter the full benefit of 12-point type and concluded that "a reply in the same tone would not be profitable." But in an even-tempered article immediately following, the editors looked hard at the questions raised by any dispassionate observer of Russian activity in virtually all the arts. Why do the Russians ban esthetic experimentation? Why do Russian artists stick to the forms and styles developed by past centuries, instead of inventing the new forms that would better express their own time and their own feelings?

Propaganda? To Western artists, the grandiose canvases illustrating Soviet history, the busts of Socialist heroes, the recent rebuke to Shostakovich, Prokofieff, etc., the monumental, Palladian bulk of Soviet buildings all add up to propaganda—but not to art. Artists, always the most revolutionary element of any society, are obliged to ask: does the Russian form of government stifle creative activity—as we

(Continued on page 16)
in the mainstream of Western European culture know it?

The Review thought it understood at least part of the reason why contemporary Russian architecture displays a uniformly eclectic style. One part: "The man in the street wanted to be able to enjoy the architectural splendors that had previously been the perquisite of the rich and powerful. . . it may be that for a generation, architecture employing a familiar symbolism will be needed in Russia before pure architectural form is able to evoke a response from a sophisticated public, as it is beginning to do in Western Europe and in America now."

The Wide Gulf. But the real difference between Russia and the West is something much more fundamental. The Review tried to define it: "The Western architect believes his own independence of action to be the essential basis of creative endeavor; in Russia . . . conformity is not a defeat for the individual but the opportunity of access to the central fount of inspiration."

Without in any way resolving this difference, the scholarly British discussion had at least put down, without partisan passion, what Western intellectuals generally think about Soviet art and esthetic theory. If Russia and the West were to live together, it was important that, in art as in other matters, they could at least understand their differences and agree to disagree. But the angry Russian letter, as the Review mournfully conceded, had made it "depressingly clear how wide is the gulf that now separates us."

**MATERIAL**

**BASE POINT PRICES BANNED**

But no price cut is in prospect.

When the Supreme Court ruled the half-billion dollar Portland cement industry guilty of conspiring to fix prices, it was merely detonating the charge set 11 years ago by the New Dealers’ attempts to cure depression. The Court’s verdict, which banned the cement industry’s multiple basing point system of pricing and also threatened a similar system in the king steel industry, was rendered in a very different economic climate from the bleak years that had inspired the case.

As compared to the “soft” prices of textiles and unsupported farm products, cement and steel prices show a high degree of rigidity. In the depression, cement and steel prices dropped much less than textile, farm and other commodity prices, but cement and steel production dropped much more. The New Dealers believed that the economic unbalance between hard prices in basic materials and soft prices in food and many manufactured items was an important factor in periodic depressions. They started anti-trust action to stop any producers’ agreements to keep prices from responding freely to market pressure.

One aspect of price rigidity not emphasized in the depression groundwork of the cement case: rigid prices also fail to rise as sharply as the general commodity level in times of inflation. In the cement industry, this has certainly proved to be the case. From 1939 through 1947, cement prices, according to the BLS wholesale index, rose only 32 per cent as compared with an average of 107 per cent for all building materials. Structural steel showed a 33 per cent increase in this period.

Cement producers have never made any secret of their disinterest in bankrupting price wars. The 258 U. S. cement mills produce a highly standardized product, with more-or-less standard equipment. The big price differential is the cost of freight to the customer. Their basing point system is, however, not so much an instrument of price-fixing as a simplified method of quoting prices.

The cement producers have set up 60 "basing points" over the U. S. Prices to customers are quoted on a delivered basis, and the quote includes a charge for rail freight from the nearest basing point. Freight charges from these basing points are all listed in a rate book. If a cement mill far away from the customer wants to meet the price offered by a mill nearby, it looks in the rate book for the standard freight charge and figures out how much of its freight costs it will have to absorb. On the other hand, a mill near the customer may ask him to pay the "phantom freight" called for by a basing point 50 miles away.

Now the Supreme Court says the cement producers must end this pricing system. The decision was a portentous one: similar pricing systems are, or have been, in effect in steel, cast iron soil pipe, vitrified clay soil pipe, electrical items, construction machinery and others.

Would the decision as the Federal Trade Commission hoped, help cut "inflationary prices in building materials"? This was unlikely. In a buyers’ market, dropping the basing point system might conceivably stimulate some price competition. But there was no sign of softening in the present firm seller’s market.

**WHAT’S YOUR CIQ? If you get 150, you're a genius.**

If you are an operative housebuilder, you can find out your CIQ* with this check-list. It is based on a comprehensive study just finished by the Construction Industry Information Committee, a group of building material manufacturers (see Forum, April ’48). The Committee’s researchers have added up progress in the construction industry over the last decade and turned in an impressive statement of how far improved methods and materials have turned the ancient craft of building into a mechanized industry. Of especial interest is the Committee’s conclusion that efficient methods long used in heavy construction have by now spread widely into housebuilding. Every “yes” to the following questions adds 15 points to your CIQ. Every housebuilder who reads The FORUM will undoubtedly rate 150 (Genius).

1. Do your plans make maximum use of standardized parts and material sizes?
2. Do you precut and preassemble parts from drawings, instead of cutting and fitting on the job as work progresses?
3. Do you list all parts and materials at the start of a job and schedule deliveries so that materials will be available without delay in the sequence needed?
4. Do you assume responsibility for detailed job layout, instead of delegating it to a foreman?
5. Do you set up repetitive labor operations where the job is of sufficient size and duration to permit such organization?
6. Count one for each of these tools you employ: electric handsaw, radial saw, electric sander, electric lock mortizer, electric drill, electric pipe cutter and threader (now approved by the plumbers’ union), paint sprayer (now authorized under reasonable safeguards by the painters’ union), masonry saw, mobile concrete mixer, motor-generator (to operate electric tools where power current is not available).

* Construction Intelligence Quotient.

7. If you build 100 or more houses at a time, or multi-story housing, do you use at least three of these: truck-mounted crane, bottom-dump bucket for hoisting concrete, portable elevator tower for lifting other materials, motorized wheelbarrow, lift truck for stacking incoming lumber, straddle truck for picking up prepared framing?
8. Are you ordering the modular sizes now available in brick, structural tile, glazed tile, cement masonry units, wood sash and doors, metal windows, wall boards and insulation boards?
9. Have you studied these improved materials for their use to you: ready-mixed concrete (arrives heated in cold weather); high-early-strength cement, structural tile glazed on both sides, pre-finished flooring, plastic-surfaced building board and plastic tile, new thermal and acoustical insulating materials, simplified builder’s hardware, more efficient adhesives and paints?
10. Are you making maximum use of these factory assemblies: doors cut to fit with preassembled trim, kitchen and bathroom cabinets, closet or wardrobe units, automatic laundry equipment, plumbing-and-heating units?
THE MODERN STYLE IS

GENUINE CLAY tile

Boston's Bonwit Teller has

a distinctive decor pleasing to the most fastidious customer . . . smart merchants everywhere know

the importance of clean, attractive powder rooms and gentlemen's lounges. Here at Bonwit's,

the ladies' lounge is done in a modern color combination of grey and Kelly green. The grey motif established in the walls and carpets of the powder lounge is carried through in the washroom with French grey genuine clay wall tile and wainscotting. Used with pink fixtures, this real tile background is both pleasing and distinctive. Sanitary cleanliness is assured. The effect is one of beauty, smartness, and color that will last year after year.
to defeat demon doodlers

in school corridors, gyms, and wherever else eager hands can reach, choose a permanent, mar-proof surface like genuine clay tile. Public officials appreciate it when real clay tile is specified because tile makes tax dollars go further. Cleaning and maintenance work is easier and less costly. Clay tile is washable and therefore doesn’t require waxing, varnishing, or painting to keep it always looking bright and doodle-free.

THE MODERN STYLE IS GENUINE CLAY IN THE BEAUTIFUL BILTMORE

Even when you enter this world-famous New York hotel it is hard to realize it was built 34 years ago. Recently, an extensive modernization program was undertaken to further enhance its distinctive charm. Original Georgian furnishings are being replaced with “modern Georgian.” Besides keeping beautiful, all hotels must also keep maintenance costs low. A guest in the Biltmore who steps into any one of the 550 modernized bathrooms appreciates the smart looking beauty and cleanliness of the walls which have 6' of newly added genuine clay tile. And behind scenes are the easily cleaned, sanitary, tile floors now installed in the 18th floor kitchen and Bowman Room pantry. Equally important to the Biltmore management is the money which will be saved over the coming years by the maintenance economies real tile assures. Keeping beauty bright, and maintenance costs low, in this case go hand in hand.
as an outstanding example of how private capital and management are providing a truly cooperative residential community at Forest Hills, New York, for World War II Veterans. When fully developed, 5,669 apartments of 3½ to 5½ rooms will cover a 55-acre tract in this New York City suburban development. Featured in these well-planned apartments are bathroom walls and floors of genuine clay tile in harmonious colors. The Veteran's Administration, in appraising this and other housing projects, looks for the long-range value, economy, and durability that real clay tile provides. In both large-scale housing projects and individual custom-built homes, tile is preferred for bathroom walls and floors, kitchens, sun rooms, powder rooms, halls, stairs, and porches because it increases sales appeal. Experienced real estate people stress the presence of genuine clay tile since home buyers and renters recognize tile as the hallmark of quality and are willing to pay for its advantages.

**when candy is cookin',**

cleanliness counts. Naturally, candy and food factories need walls and floors that are easy to clean and keep clean.

But, ease of cleaning is just one of the requirements. Spilled liquids can penetrate open floor joints and deteriorate rapidly, causing unsanitary conditions. So, dairies, bakeries, restaurant kitchens, and other places where surfaces might be attacked by food acids or alkaline cleaning agents, rely on real clay tile floors and facings. Acid and stainproof, clay tile is hard and resistant to warping, chipping, and cracking. All these advantages help assure sanitary conditions.
Reflecting the increased use of genuine clay tile for all types of contemporary and traditional designs, the industry is today producing more and better tile than ever before in history.

To insure the continued increase of both quality and quantity, tile manufacturers have invested over 10 per cent of their gross sales income since the end of the war in new plants, equipment, and product research and development.

As a result, genuine clay tile can be specified for familiar—as well as for new and exciting—installations, with full confidence that every demand will be satisfied.

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Silbraz joints actually make the brass or copper pipe or tubing into "one-piece pipelines" that save you money by eliminating leaky connections, costly maintenance, and repairs.

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PRIDE OF THE PRAIRIE

Forum:
The March issue arrived here and has caused considerable excitement as you can well imagine. Most of the students seem to think it's quite a fine write up. They do kid me a lot about being the "Pride of the Prairie". But I think you did a swell job. . . . We are working on a house (in Chicago) to be made of coal, green marbles and shingles. . . .

BRUCE GOFF, Chairman
School of Architecture
University of Oklahoma
Norman, Okla.

Forum:
Received the March issue of The FORUM and was greatly irritated by a remark made in the article on Bruce Goff, which stated: "The policy makers at the University are most anxious that the Architectural Department not turn into a one man style school such as they consider Harvard and Illinois Tech." Being an architectural student at the Illinois Institute of Technology, I feel that these men who consider themselves policy makers should thoroughly understand the teaching methods of the architectural departments at these schools before making such highly unjust accusations.

I suggest they look into their own backyard!!

R. F. MAYER
Chicago, Ill.

INNERSPRINGS OF AMERICAN BUILDING

Forum:

DAVID BURCH
Tulsa, Okla.

Forum:
I extend my congratulations on the book American Building, by one of your editors. It is a fine and much-needed piece of work. This opinion I have supported practically by buying four copies to give to certain select friends in the profession. I have, with some zeal, urged it upon many others. Being explicit about it comes of a desire to notify you that I am utterly friendly to James Marston Fitch. I come in peace.

Certain of my close acquaintances have delegated me to inquire further into one small aspect of this excellent opus. Under a species of questioning popularized by the Kinsey Reports it came out that none of my 50 year old associates could present any concrete development of the speculation on page 278. I quote: "In the light of our current knowledge, it is not at all certain that the super-soft inner-spring mattress is a guarantee of either perfect rest or satisfactory sexual intercourse."

My medical friend, Dr. Robert Acker, could not shed light on this disquieting item. Gerald Cosgrove, cynical editor of the South Bend Tribune, suggested that Fitch was probably preparing a separate book on this issue.

Carl Prell, local advertising fellow, was alert to future possibilities but mystified.

Francis Jones, astute attorney, has not yet emerged from a cloud of bafflement brought on by this heavy implication.

Around me sits a full circle of bald men trembling with a sense of something forever beyond revolving.

Can we expect a supplementary leaflet? There is too much that is indecisive on page 278.

VINCENT F. FAGAN, Architect
South Bend, Ind.

Fitch is lying down on the floor thinking things over.—En.

GYPSUM LOVE CALL

Forum:
Thanks for the news story dealing with the testimony before the Joint Congressional Committee on Housing (Forum, Feb. '48). I enjoyed both the informative and slightly humorous vein in which it was written.

The gyspum manufacturers, who also produce a large number of other building materials, were disappointed with the hearing. That is describing their feelings rather mildly.

The industry had an excellent story to tell. Compared to the base year 1939, the industry had by the end of 1947 increased its output more substantially than that of any other group of building products. Also, although we had all sustained cost increases in excess of 100 per cent per unit for labor and the major raw materials going into our product, we had, through increased output and manufacturing economies, held our over-all price increase down to 27.7 per cent. We were actually netting substantially less per dollar sales in 1947 than in 1939.

Further, we were perhaps the only industry that had exceeded by a substantial margin the quota set for us in 1947 by the U. S. Department of Commerce. . . . Yet in general not a word of this appeared in the press. The bulk of the Committee's time was taken up with an alleged gray marketeer whose entire operations affected less than one-tenth of one per cent of the industry's output. Through the pre-eminence given him by the Committee, he received nation-wide publicity, yet your article is the first one I have read about the position or testimony of the gyspum manufacturers.

Please accept the thanks of one of the "Forgotten Men."

JOHN C. BEST, V. P.
National Gypsum Co.

HIS MARK

Forum:
I do not pretend to contribute the last straw to the controversy as to whether or not Corbu looks like a crow. I humbly submit the enclosed document, however, for whatever weight it brings to the argument.

In Corbusier's fluid style, it indicates that he passed by my studio one day last Spring and found me not-at-home. I'm sure that many of his friends are very familiar with this drawing of himself, which also has appeared on postcards from San Francisco, etc.

MITZI SOLOMON, Sculptor
New York, N. Y.

SOCIETY AND ARCHITECTURE

Forum:
When I read Lewis Mumford's article in the "New Yorker" it seemed to me so important that I had it mimeographed for distribution to all my students of architec-

(Continued on page 20)
For Sheathing:
Insulite (Bildrite) Sheathing builds stronger walls... provides more than twice the bracing strength of wood sheathing horizontally applied. It also builds better weather-tight walls because it insulates as it builds!

For Plaster Base: Insulite Sealed Lok-Joint Lath is a strong, rigid plaster base with insulating value as a bonus. Combined with Insulite (Bildrite) Sheathing, it controls vapor... guards against harmful condensation within the walls.

Specify double-duty Insulite.
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- Condensers
- Evaporating coolers
- Oil coolers

GAS coolers
- Atmospheric cooling and condensing units
- Supercharger intercoolers
- Aircraft heat transfer equipment

Inside A.I.A.

Forum:

In your warm appreciation of Electus D. Litchfield, Esq. and his cautiously circumscribed assimilation of one States-worth of American Contemporary Architecture (Forum, Feb. '48) you recorded the mechanics of Mr. Litchfield's distinguished professional continuity but missed its fine flower. . . . Having met Mr. Litchfield when he was copying the Column of Trajan at more than life size, in cement, as a memorial to Lewis & Clark (of all people!) on a Pacific Ocean headland at Astoria, Ore. I have since cogitated on these highlights of a carrère Architect without reaching any very satisfactory or even temperate mind.

The gaiety and pathos of Bozart and its influence on the Intelligentsia of your grandfather's hey-day surely awaits Mr. Gunther's "Inside A.I.A."

William Gray Purcell, Architect
Pasadena, Calif.

ENGLISH EXPERIMENT

Forum:

Your readers may be interested in a planning scheme recently completed in your office for the first "postwar" town in England, not sponsored directly by the government.

This scheme has been evolved at Brandon Wood near the city of Coventry at the request of the Family Health Housing Society of Coventry.

This Society has been formed with the object of housing a complete community of 2,000 families as a large scale experiment in the study of family health, under ideal sociological and housing conditions.

The community will be drawn proportionately from all income groups and will be housed in detached, semi-detached or terrace houses, or in flats. To secure (Continued on page 24)
The home owner is not the least bit interested in bundles or strips of flooring. What she wants is a beautiful, durable, easy-to-clean floor.

It is important to remember this. The way the floor looks and wears in the home depends very much, of course, on the quality of the flooring. But it also depends on the type of finish . . . the sanding, finishing, filling and waxing. Even the best hardwood flooring will be unsatisfactory if not properly finished.

Bruce takes care of the quality of its flooring by methods tried and proven in manufacturing hundreds of millions of feet. Bruce Flooring is as perfect as modern machines and skilled workmen can make it.

Then, to make certain the home owner gets what she wants in a floor, the Bruce research staff has developed a superior method of finishing hardwood floors. As demonstrated by the Bruce Scratch Test pictured here, the result is a finish that does not scratch, chip or peel like a surface coating . . . a finish that will remain in perfect condition with very little maintenance effort and expense.

The home owner gets this more beautiful, longer-lasting, easier-to-clean finish in Bruce Finished Floors—completely sanded, finished and waxed at the factory. Where unfinished Bruce Flooring is used, Bruce Floor Finishing Materials can be applied on the job to secure similar results.

Simply stated, the Bruce formula for hardwood floors that home owners want is: highest quality flooring plus the superior "Scratch Test" Finish.
Big, small, or in-between—any retail store or shop can have the extra customer appeal of modern air conditioning by Carrier. There's an efficient, economical Carrier Weathermaker for every size installation—from the small drug store or beauty shop to the large specialty shop or variety store.

For the small shop where all available space is given to sales, there's an attractive packaged Weathermaker to stand right out in the sales area. It may be used with or without duct work . . . and blends harmoniously with any interior or fixture styles.

A larger self-contained unit for medium-sized stores can be concealed behind a partition or in a service area. Both of these self-contained unit types—from 3 to 15 horsepower—have a factory-assembled refrigerating system, ready for building service connections.

Where space and larger load call for central refrigeration, Carrier offers the System Weathermaker units. These may be used singly or in groups with remote location of refrigerating equipment. There's a wide range of capacities to meet any need. And, like every Carrier product, they are backed by the longest experience in the air conditioning field. Carrier engineers have worked closely for years with architects and consulting engineers to provide the finest in air conditioning. They are always glad to supply data on fitting Weathermakers into the plans for any store. Carrier Corporation, Syracuse, New York.
The Line that Stays Bright... the completely new line of "Dutch Boy" Blended Paints. In Colors or White... BLENDED Just Right...
...to Stay Sparkling Bright!

The Line that's Blended Right... Each paint is scientifically blended to do its own special job especially well. Blended by the master hand of the "Dutch Boy", with the experience of more than 30 years of continuous outdoor paint tests!

1. BRIGHT WHITE Blended to Stay White! "Dutch Boy" Bright White is self-cleaning! The surface continually renews itself... permits rain to wash away dirt. Sets a new standard for hiding... and for a dazzling white finish that stay white!

2. TINTS Blended to Stay True! "Dutch Boy" Tints go on crisp and fresh... and they stay crisp and fresh! Specially blended to assure lasting, uniform color, they keep their sparkling good looks!

3. TRIM COLORS Blended to Stay Bright! "Dutch Boy" Sash & Trim Colors add the finishing touch to a home's protection. They're blended to hold their gloss... to stay bright and gay!

4. PRIMER Blended to Really Seal, Hide and Hold! An undercoat of great sealing and hiding power, that holds fast. When used under a topcoat of "Dutch Boy" Bright White or Tints it gives a superior two-coat paint job, even on unpainted wood!

5. PORCH & DECK Blended to Stand Wear! "Dutch Boy" Porch & Deck Paint is blended for extra toughness... to stand up under heavy foot traffic and the elements.

And what an INTERIOR PAINT!

Now at Last!... a one-coat inside paint that really covers in one coat... yet really washes like new! It's the new "Dutch Boy WONSOVER!"

Now at Last!... a real oil flat paint with complete hiding power! "WONSOVER", once over and the work's over with "WONSOVER"!
One Name To Specify
for Flush Doors

PAINE
REZO

and more than
two million
good reasons

why

U.S. Pat. 2,307,314
The exclusive interlocking
grid core within the Rezo
door allows constant air
circulation, adds extra
strength, and provides
greater rigidity.

There's beauty in a Paine Rezo door as you can see, but back of
this enlarged opportunity for design is the greatest record of satis­
factory performance among all flush door manufacturers ... for
more than 2,000,000 Paine Rezo installations have been made in
all parts of the country and in all weather conditions.

1 1/2" Paine Rezo doors can be used anywhere because the ex­
clusive, patented features of construction of this time-tested air-cell
doors minimize warping and swelling while it adds great strength
to lightness in weight. Along with this unduplicated stability, these
best-engineered doors are pre-fitted, are easily hung and quickly
finished so that they cost no more finally than a common panel door.

A concise four page bulletin packed with architectural data to
save you time is yours for the asking. Your inquiry is invited. Write.

Manufactured by the

PAINE LUMBER CO. LTD. - Wisconsin

ESTABLISHED 1853

the health benefits of first quality foods the
built up area will be surrounded on three
sides by a farm strip. The farm will be
run on a cooperative lines by the society and
has been allotted an area of about 250
acres of the land now owned. This land
is already being farmed by the society and
a herd of some 25 cows is being collected.
Voluntary labor is playing a large part in
the running of the farm.

There will be a central area where a
shopping center, church, administrative
buildings, car park and cinema have been
planned, and, in addition, shopping facili­
ties will be provided at various appropriate
points throughout the estate for such day­
to-day necessities as are usually provided
by the “corner shop.”

On the north side of the Brandon Wood
road the land is undulating and a free and
informal layout has been adopted. To the
south, however, where a considerable
amount of uncontrolled sporadic develop­
ment has already taken place on a formal
gridded plan, the layout has had to take
into account this existing grid.

The guiding principle as regards road
layout has been that all traffic should be
routed into a main ring road. A fly­
over has been arranged where the main
north-south road of the estate crosses the
Coventry-Rugby road.

One secondary and two primary schools
have been sited in the society’s development
(proposals and the appropriate areas for
playing fields etc. have been allotted.

... The Health Center has been allotted
a central site of five acres. The center
will be run on the lines of the Peckham
Health Center, as a club. It is to form a
focal point of the social life of the whole
community and will cater for the leisure
time of the complete family, being designed
to allow both parents and children to pur­
sue recreation at the same place and time.

Facilities will be provided for an annual
health overhaul for each family on the
estate, for a restaurant, bar, dancing and
dramatics. Indoor space for such games as
billiards and tennis will be arranged.

(Continued on page 28)

Warm Spot
in January
Cold Wave

Hundreds of formerly “hard-to­
heat” buildings ... places that used
to be cold even in normal winter
weather ... were oases of warm
comfort during the January-Febru­
ary cold wave thanks to a post-war
Webster development—Webster
Type WI Extended Surface Radia­
tion for hot water and two-pipe
steam service.

Installation in Gardner’s Cottage

Using modern materials, copper
tubing and aluminum fins, Type WI
Radiation provides better than a
square foot of heating surface for
each 1/2 lb. of weight. Takes up
negligible space. Can be put where
the heat is needed—along the wall,
close to the floor, behind benches.

Take steps now while the memory
of your cold weather difficulties is
fresh in mind. See if Webster Type
WI Radiation can be used to turn
your cold spots into areas of next
winter comfort. Good delivery now.

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Camden, N. J. :: Representatives In Principal Cities
In Canada: Darling Brothers, Limited, Montreal

WEBSTER
HEATING
No. 423-B BENEKE PLASTIX SEAT for regular rim bowl. Sturdily built of solid black plastic.
An architectural unity of materials is achieved when metal windows are placed in a building. They express permanence in graceful, slender lines.

See the Mesker Catalog in Sweet's File Architectural, Sec. 16a/20, or write for your copy of the Book of Windows for Public Buildings. Mesker Brothers, 4336 Geraldine, Saint Louis 15, Missouri.
the new arithmetic
in automatic
HOME HEATING!

TIMKEN SILENT AUTOMATIC COUNSEL
AT THE PLANNING STAGE
Practical, experienced blueprint assistance from Timken Silent Automatic engineers saves heating system space, assures a better-operating system, and often lowers construction costs by making possible a more efficient and compact room arrangement.

+ EQUIPMENT ESPECIALLY DESIGNED
FOR MULTIPLE-UNIT PROJECTS
Timken Silent Automatic heating equipment is experience-designed to meet every project requirement of quiet, dependable operation . . . extreme compactness . . . high operating efficiency at low fuel burning rates . . . and low first cost.

+ HEATING EQUIPMENT FOR ALL THREE
FUELS—OIL, GAS AND COAL
Regardless of which fuel enjoys a local use preference or a local price advantage, Timken Silent Automatic has a complete range of modern equipment for burning that fuel. And a wide range of types, too—boiler units, furnace units, water heater units fired by oil and gas, and oil and coal conversion burners.

LOWER-COST UNITS
Important savings on heating system costs and, frequently, savings on construction costs of the homes themselves, help keep the total cost down to a keenly competitive level.

MORE SALEABLE UNITS
All that's latest and best in automatic heating equipment, plus the prestige of the nationally-advertised Timken Silent Automatic name, exerts a powerful influence on prospective purchasers . . . assures faster, more profitable sales.

GREATER PROFITS
Quality homes that build reputations—at costs lower than you may expect—make a profits picture that’s hard to beat.

It adds up!—to better business for every builder who knows the importance of well-built, well-known heating equipment in the multiple-unit scheme of things. Right from the blueprint stage, and all the way through to the owner's final acceptance, Timken Silent Automatic can help you lower costs, increase profits, and build an enduring reputation for quality-built homes. For the new arithmetic in home heating that multiplies profits, TURN TO TIMKEN SILENT AUTOMATIC!
THESE STRIKING EXAMPLES OF MODERN STORE ARCHITECTURE INCORPORATE
WARE ALUMINUM WINDOWS

WARE casement windows of aluminum are appearing on more and more modern buildings because they are the complete answer to the window problem. Their smart, silvery gray lines and their slender frames seem to give greater glass area and more light. In addition:

- THEY ARE LIGHT IN WEIGHT YET RIGID AND ALWAYS IN ALIGNMENT
- THEY ARE OF HEAVIER SECTION THAN USUAL
- THEY NEED NO PAINTING
- THEY ARE STORM-TIGHT (write for remarkable tests)

WARE LABORATORIES, Inc.
3700 N.W. 25th St., Miami 35, Fla.
New York Office
21 West St. Whitnall 3-8660

and out-of-doors for football, cricket, tennis, etc. There will also be a covered-in swimming pool.

Owing to the large proportion of land relegated to farm use, added to the fact that the Society is anxious to provide as much private open space as possible, it is proposed that a fair proportion of the housing accommodation shall be provided in tall blocks of flats.

In the first 200 dwellings there will be seven detached, 12 semi-detached four-bedroom houses, 36 semi-detached three-bedroom houses, 70 terrace houses and 68 flats, and, in addition, there will be 14 old people's bungalows.

IAN MACKENZIE
Atcon
London, England

ST. LOUIS COMPETITION

Forum:
The following quotation was taken directly from page 14 of the March issue of The ARCHITECTURAL FORUM: "... then the conclusion seems inescapable that American architects are uncomfortable and unsteady on projects of this scale."

It is the purpose of this letter to take exception with that statement, at least in so far as The Jefferson National Expansion Memorial Competition is concerned.

Obviously, the jury in any competition is the defining rod of quality in that competition. We should note that the first phase program, as issued by The Jefferson National Expansion Memorial Association, was quite explicit in stating that the first phase of the competition was not to select designs but was to select architects for the second phase.

Further, the contestants were given to understand that cost (except where involving equal results) was not to be a basis for judgment; but that real monumentality, absolute integration, and the commitment of the contestant to the development of the entire site were of paramount importance—imagination rather than cost was the desideratum.

Yet, we understand that cost was given

(Continued on page 32)
It's no secret that MA • TI • CO is the flooring installed in the highly secretive quarters of the Atomic Energy Commission in New York. A tribute, indeed, to MA • TI • CO's renown for lasting serviceability and unimpeachable quality. When next you specify or order asphalt floor tile—be sure it's MA • TI • CO—now available in a complete range of beautiful colors... both marble and solid. No quantity restrictions.

Write to our New York Sales Offices for Tile Samples and Literature.

MASTIC TILE CORPORATION

A Correction: In a recent advertisement announcing the installation of MA • TI • CO Asphalt Tile Flooring in "U.N." there was no intent to imply that the United Nations endorses any products. The building referred to was originally designed for the N.Y.C. Housing Authority by Alfred Fellheimer and Steward Wagner, architects and engineers. MA • TI • CO regrets omission of these facts.
VENTILATION AIR CAN
BE ADJUSTED TO SPACE
REQUIREMENTS

INDIVIDUAL TEMPERATURE
CONTROL FOR
EACH ROOM

REMOVABLE, EASY-
TO-CLEAN FILTER

HANDSOME ONE PIECE
STEEL CABINET FINISHED
IN GREEN

FOR ANY MULTI-ROOM AIR CONDITIONING JOB

Personal Weather Control

HOT WEATHER—cold weather—tenants can be comfortable in any multi-story building that has a G-E Personal Weather Control system.

This modern air conditioning system can be custom-tailored to your architect’s design. Units can be hidden in the wall with only intake and discharge grilles visible. Every part of the G-E unit, including the cleanable metal filters can be serviced from the front.

Only filtered air passes through the coils ... which means lower costs for coil maintenance. Fresh air can be introduced through a central plant, a zone plant or simple wall or window openings. Water coils can be used for heating in winter as well as cooling in summer.

Your local General Electric air conditioning expert will be glad to work with your architect and engineer to provide the system that’s just right for your building.

General Electric Company, Air Conditioning Department, Section A8135, Bloomfield, New Jersey.

GENERAL ELECTRIC
Better Air Conditioning

Fresh air con be drawn directly into the unit from an aperture in the wall or directly through the window opening.

Fresh air can be conditioned by a central plant system and carried to each unit by ducts.

Fresh air is centrally conditioned and distributed through wall outlets.

30 The Architectural FORUM May 1948
THE FINEST BUILDINGS OF THE POSTWAR

HAVE Q-FLOORS

Merchants National Bank,


If you want to know why these architects specified Robertson Q-Floors, please write for literature.

H. H. ROBERTSON COMPANY

2403 Farmers Bank Building
Pittsburgh 22, Pennsylvania

Offices in 50 Principal Cities
World-Wide Building Service
Two of America's NEWEST, Finest Stores
Equipped with LAMSON TUBES

BULLOCK'S Pasadena, Calif.
Walter Wurdeman & Walton Basket, Architects

I. MAGNIN'S San Francisco, Calif.

In both modern stores, the Lamson Tube System makes it possible to handle every type of sales transaction: Cash, Charge, C.O.D., Mail Order, and others. Actual cash is safer at the central desk. Also, only trained cashiers make change.

Every Lamson dispatch station offers complete service for any number of salespersons. For light or rush business periods, Lamson stations will handle all sales adequately.

Only trained operators authorize Charge Sales. This assures accuracy, speed and better customer satisfaction.

Lamson Tubes save messenger service and countless footsteps. Cash does not have to be picked up from numerous counters at night ... nor does it have to be redistributed in the morning.

Lamson Tubes complete the average sale in about 30 seconds. FURTHERMORE—Lamson Tubes definitely COST LESS than a system of individual cash units which offer limited service.

For further information—without charge—write to:

LAMSON Corporation
775 Lamson St., Syracuse 1, N.Y.

enormous consideration by the jury and that the merits of each scheme were weighed for the possibility of piecemeal erection. It is impossible to conceive of real monumentality with an integrated design and sensible development of the entire site when an important consideration of the jury was given to economy and the merits of piecemeal completion. In my opinion, the winning designs verify this belief.

If the jury 'in toto' will not refute the inclusion of these factors in the judgment of the critical first phase we may again feel confident of the ability of the American architectural profession.

In conclusion, may I question whether your editorial judgment was based on perusal of all the first stage entries or only on those published in The Forum. If your evaluation was based on the latter may I add my wholehearted approval.

CHARLES R. COLBERT, Architect Tulane University
New Orleans, La.

As Forum understands it, the first and second phases of the competition were judged by different criteria—only the latter being subject to cost scrutiny and planning for piecemeal erection. Forum also understands, however, that the runners-up in the first stage included many designs of extraordinary excellence, although our review was confined to the winners.—Er.

THE NIEMEYER CASE

Forum:
The editorial paragraph on Oscar Niemeyer in the March issue of The Architectural Forum contains a statement to the effect that the A.I.A. did not intervene in Mr. Niemeyer’s behalf with the State Department when requested to do so by the Brazilian Association of Architects.

A certain interpretation of the word “intervene” might make your statement one of actual fact. However, your article implies an inaction or antagonism on the part of the A.I.A. The implication is misleading.

As the representative of the profession in this country, the A.I.A. acts after consideration of all factors brought to its attention, and exercises its best judgment in the interest of the profession and of the public welfare.

Shortly after receiving the cablegram from the B.A.A., we communicated with the Department of State, pointing out that Mr. Niemeyer was a distinguished architect of international reputation. No comment was made by us relative to his political beliefs.

The A.I.A. is not concerned with the political beliefs of professional people. However, the law with respect to the entrance of foreigners to this country is clear, and as
Herman Miller will produce over 10,000 case units* in 1948.

*George Nelson designs
NOW! Again available

PC VUE Glass Blocks

(A MODULAR PRODUCT)

Transparent Glass Blocks, again in production, allow limited vision, provide effective insulation.

PC VUE Glass Blocks had already won wide acceptance when war halted their production. They were developed by Pittsburgh Corning Corporation at the request of architects, engineers and designers who wanted a "glass block you can see through."

The PC VUE Glass Block is made of transparent, fire polished glass, with smooth surfaces inside and out. It admits plenty of clear daylight, allows sufficient general vision of what goes on outside to prevent the "shut-in" feeling. PC VUE Glass Blocks can be installed alone in large lighting panels or can be used in combination with regular block patterns, to provide vision areas of desired size and location.

Like the other PC Glass Blocks, the VUE Block contains a partial vacuum, a dead air space that gives it twice the insulating value of ordinary single-light glass. So heat transmission is retarded—even through large opening panels—easing the load on air conditioning equipment and reducing heating costs.

When you are planning new buildings or remodeling projects, be sure you have all the latest information on PC VUE Glass Blocks. Just send in the coupon and we'll mail you free copies of new booklets on PC Glass Blocks. Pittsburgh Corning Corporation also makes PC Foamglas Insulation.

PC GLASS BLOCKS...the mark of a modern building
You didn't design it "GRANPA'S WAY"... let your electric wiring BE MODERN, too!

**FIGURE IT IN ALUMINUM**

And see for yourself that you can wire it for less. Not just a little less. Wiring costs can be startlingly lower, when you figure it in aluminum.

Cable costs are lower. Handling and pulling are easier... no problems of joints and terminals or conduit layout. Over-all costs take a big drop, when you figure it in aluminum.

Alcoa makes light, strong, conductive E.C.* Aluminum conductor; leading wire and cable manufacturers draw, strand, insulate, and sell it under their own trade marks. Your wire supplier can furnish complete information on sizes and types of insulation.

**Aluminum Company of America, 1475 Gulf Bldg., Pittsburgh 19, Pennsylvania.**

*E.C.: Electrical Conductor Aluminum

And the Big Difference is in your Costs!
TWO TYPES:
Cabinet and cylinder.
Capacities: 12 to 82 gallons.

LONGER TANK LIFE... assured by the Norge magnesium rod and proved by 10-year tank warranty.

THE NORGE ELECTRIC WATER HEATER IS A SILENT SALESMAN THAT SELLS CUSTOMERS SOLD—ON YOU, AS WELL AS ON ITSELF!

Owners are really enthusiastic over these newest-of-the-new electric water heaters.
And why shouldn't owners be?... they hear nothing, they smell nothing, they fear nothing, they do nothing. The Norge is simple, safe, silent, sure.
As the expert to whom people turn for advice, you are in a position to do them a favor by recommending Norge. Besides... it's good business! Norge Division, Borg-Warner Corporation, Detroit 26, Michigan.

A BORG-WARNER INDUSTRY
Refrigerators
Electric Ranges
Washers
Electric Water Heaters
Gas Ranges
Home Heaters
Home & Farm Freezers
Water Coolers

Use MODERN PROTECTED CLEAN WOOD

Upkeep costs on wooden buildings are substantially cut when construction lumber is protected against termites and decay. Now the latest advance in wood preservatives, Penta Preservative, gives lasting protection against these costly wood enemies... yet leaves the lumber easy to handle and clean. Penta-treated lumber can be used indoors as well as out.
Here is the answer to the building industry's need for a dependable, tested preservative that does not lessen the construction value of the wood.
Don't fail to look into the long-lasting benefits obtained by using wood treated with Chapman Penta Preservative. Write us for technical bulletin and information on how you can obtain Penta treated lumber.

A BORG-WARNER INDUSTRY
Refrigerators
Electric Ranges
Washers
Electric Water Heaters
Gas Ranges
Home Heaters
Home & Farm Freezers
Water Coolers

Use MODERN PROTECTED CLEAN WOOD

Upkeep costs on wooden buildings are substantially cut when construction lumber is protected against termites and decay. Now the latest advance in wood preservatives, Penta Preservative, gives lasting protection against these costly wood enemies... yet leaves the lumber easy to handle and clean. Penta-treated lumber can be used indoors as well as out.
Here is the answer to the building industry's need for a dependable, tested preservative that does not lessen the construction value of the wood.
Don't fail to look into the long-lasting benefits obtained by using wood treated with Chapman Penta Preservative. Write us for technical bulletin and information on how you can obtain Penta treated lumber.

The national spokesman for a profession, it would be improper for us to advocate the setting aside of the Federal Statute involved.
We do, of course, on occasion voice our disapproval of Federal law, when in our opinion those laws turn out to be not in the interests of the general welfare as related to our scope of activities. We do not, however, feel ourselves competent to speak on matters of legislation, which are beyond the scope of professional interest.

EDMUND R. PURVES, Director
Public and Professional Relations, A.I.A.
Washington, D. C.

INTERLOPER
Forum:
While glancing through the January '48 issue of The Forum, I came across a very strange thing. Mr. F. L. Wright has used some (what appear to be) Hans Knoll web chairs in the Garden Room of his Taliesin West. This seems to me a very strange occurrence inasmuch as he is quoted by Lewis Mumford, in an excerpt from "The Skyline" in the New Yorker, October 11, 1947, as follows: "Frank Lloyd Wright, it is said, once turned upon a client—let's call him John Smith—who had added a few pleasant rugs and comfortable Aalto chairs to Mr. Wright's furnishings, and exclaimed, 'You have ruined this place completely, and you have disgraced me. This is no longer a Frank Lloyd Wright house. It is a John Smith house now.'"
I would like to know if Mr. Wright realizes that his chairs are showing! Or does he actually like to sit in a comfortable chair now and then? Perhaps, if this is any sign, we may see a livable house "come out of his head" one of these days.

DAVID DE LUXE LENT
New Haven, Conn.

NO TALIESIN HERE
Forum:
We have all seen with interest and enjoyment the publication of colleague Hugh Moore's alteration job (Forum, Mar. '48). You did a thorough job of it and we were all gratified to see Hugh receive such recognition.
The reason for this letter is to call attention to a statement about Norltheon in Hugh's biography which concerns all of us and which we were under the impression had been deleted from the biography. I refer to the remark that Norltheon is "based somewhat on Taliesin where Beidler studied."
First, we want everyone to understand (Continued on page 40)
How to make power toe the line

Bring electricity into line the modern, efficient way. Specify BullDog "Lo-X" BUStrribution DUCT. Electricity travels more efficiently through "Lo-X" Duct because of the ventilated casing and bus bar arrangement. Ventilation beats conductor heating by dissipating heat into the air. Closely spaced, paired-phase bus bars hold voltage drop to a minimum (by reducing reactance). The result is full power and low temperature rise that assure peak efficiency of electrical equipment.

Long, efficient life

Conductors in BullDog "Lo-X" Duct use air as their main dielectric. They're mounted on porcelain insulators and individually wrapped with insulating tape to prevent electrical failure. This means long, efficient life.

"Lo-X" Duct comes in standard, prefabricated, ten-foot lengths, with capacities up to 4000 amperes. It's adaptable to almost any industrial power distribution need. Prefabrication and standardization mean known performance, even before installation. They also give the system complete salvability when plant changes occur.

Remember this: Underpowered equipment gives poor performance. Get maximum power out of a feeder system with BullDog "Lo-X" BUStrribution DUCT.

For full technical details, contact your nearest BullDog Field Engineer. He'll gladly answer your questions and show you a typical installation near your own office.

BullDog's Field Engineers welcome the chance to sit in on planning stages of a building project. Their knowledge of electrical distribution layout can mean savings in installation and maintenance costs, as well as highest efficiency and reliability in actual operation. Why not take advantage of this prebuilding service?

BULLDOG ELECTRIC PRODUCTS COMPANY
DETROIT 32, MICHIGAN • FIELD OFFICES IN ALL PRINCIPAL CITIES
IN CANADA: BULLDOG ELECTRIC PRODUCTS OF CANADA, LTD., TORONTO

HEADQUARTERS FOR ELECTRICAL DISTRIBUTION
Sellevision transforms show windows into sales windows by eliminating visual barriers between shop and shopper. It does a pre-selling job by putting the entire store on display... invites immediate entrance with "something in view".

With Safety-Set Store Front Construction the maximum benefits of Sellevision are easily obtained. Visibility is definitely increased with Safety-Set's lowered sash height. Heavier bars of special design provide positive support for enlarged glass areas. Our exclusive FINGERTIP SETTING establishes new standards of safety... it holds glass firmly and uniformly without set screws or other pressure devices.

Safety-Set is new, handsome, durable construction, expertly fabricated in heavy gauge stainless steel and anodized aluminum. Wide choice of attractive sash and sill combinations permits authentic interpretation of individualistic design with versatile standard members and stock millwork. See our catalog and details for pertinent information. They are yours for the asking.

BRASCO MANUFACTURING CO.

HARVEY (Chicago Suburb) ILLINOIS

Specialists in Metal Store Front Construction for more than 35 Years

BRASCO MANUFACTURING CO., Harvey, Ill. (The Architectural FORUM May 1948)
In the new home, the automatic water heater is too often the first thing to fail... yet

GLASS Can't Rust or Corrode!

THAT'S WHY

TRADE MARK REG. U. S. PAT. OFF.

Permaglas

WATER HEATERS

Assure completely satisfactory automatic hot-water service

ADVERTISED IN LIFE. More than 100 million copies of LIFE are reminding readers of this vital fact:

The glass-fused-to-steel tank in Permaglas Water Heaters CANNOT RUST OR CORRODE under any water condition.

So are the readers of The Saturday Evening Post—58½ million copies; and 120 million more for Better Homes and Gardens, American Home, and House Beautiful.

Hundreds of these people are your clients and prospective clients, in your community. Why disappoint them with anything less, when you can now specify "Permaglas"?

These famous performance-proved water heaters are available everywhere now... to assure long, dependable hot-water convenience... free of tank rust and corrosion stain.

SEND THE COUPON NOW. Your clients know what they can expect from a Permaglas Water Heater. Be prepared to tell them why. Ask us to send you complete data and specifications — today.

A. O. SMITH CORPORATION

A. O. SMITH CORP. Dept. AF-548
Kankakee Works
Kankakee, Illinois

Without obligation, please send specifications on these SMITHway Water Heaters:

Gas Water Heaters
Electric Water Heaters
Both gas and electric

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New York 17 - Atlanta 3 - Chicago 4 - Houston 2 - Seattle 1 - Los Angeles 14 - International Division: Milwaukee 1 - Licensee in Canada: John Inglis Co., Ltd.

Manufacturers also of better zinc-lined Duraclad and Milwaukee Water Heaters
Don't let unsafe footing turn away store customers

Enhance appearance, increase wear-resistance and provide an entry way where the hazard of slipping has been banished (especially on wet days) by using ALUNDUM® Aggregate for terrazzo or concrete . . .

... or you may prefer ALUNDUM Floor Tile or Ceramic Mosaic Tile. The hard, tough grains of aluminum oxide give ALUNDUM Floors their wear-resistance and slip-proof quality. Don't neglect the slipping hazard when it is so easy to make your entrance and all heavily traveled floor areas non-slip.

See our catalog in Sweets (SA and SE)

NORTON COMPANY • WORCESTER 6, MASS.


LETTERS

that Norththeon is not based in any way on Taliesin. All colleagues are paid a fair salary and participate fully in the running of our practice. Since Taliesin consists of apprentices who pay Mr. Wright a substantial fee for the privilege of being there, the inference that Norththeon does likewise is one that we are most careful to avoid.

Second, since I was in Mr. Wright's employ as a draftsman I do not see much point in giving the impression that I was merely a student there. I personally am proud of my former connection with Mr. Wright and his influence on me was significant. It is important to us, however, that the public does not get the impression that Norththeon colleagues are in any sense similar to the apprentices at Taliesin.

It is because of our great respect for The FORUM and its staff that we are eager that you all have an accurate picture of what we are doing at Norththeon, and it is in that spirit that this letter is written.

Paul Biederer
Easton, PA.

HORSE AND BUGGY HOUSES

Forum:

How much longer is residential and development building going to stay in the horse and buggy age? In my opinion practically all of our present lower cost houses and housing projects fall in this category. Considering the great progress being realized in numerous scientific fields as a result of application of the knowledge acquired through extensive research, experimentation and study, it is indeed regrettable that the home and its environment should at the same time be showing no visible progress. Especially when it can have such a profound effect on the joy of living, character and family upbuilding which after all should be the primary purpose of most of man's efforts. There is no legitimate reason why all residential districts shouldn't be beautiful and park-like. Poor and antiquated design may be excusable for emergency housing but when so-called emergency housing embraces all housing for a period of many years and when such housing is constructed of a permanent nature, then more thought and planning should be given it or one of these days we'll wake up to discover our nation covered with new but obsolete communities. Just because anything that resembles a house can now be sold or rented, does not justify continuing use of antiquated plans. Because it was good enough for grandma is not sufficient reason for it being good enough today.

Instead of prison-like houses with peephole windows placed with no thought of

(Continued on page 44)
The Thornley, recently completed in New York City, is one of Manhattan's finer apartment buildings. It is truly a showplace in every respect.

Embodying the most modern design and construction developments, including metallic insulation, hardwood parquet flooring throughout, dropped living rooms and independent dining bays, it is to be expected that the owner, Mr. David Rose, would want Honeywell Personalized Heating Control in each apartment.

Honeywell P. H. C.* insures rentability in years to come by permitting tenants to select and maintain their own individual temperature requirements. And just as important, if not more so, P. H. C.* eliminates waste fuel. No longer is it necessary to satisfy the "cold" tenant by overheating the entire building.

You can provide the same advantages for your clients by specifying P.H.C.*—easily and quickly installed in new or existing buildings. Consult your nearest Honeywell branch. Minneapolis-Honeywell, Minneapolis 8, Minnesota. In Canada: Toronto 12, Ontario.
POWERSTAT PACKAGED DIMMER
TYPE DBP3-1700
BY THE SUPERIOR ELECTRIC CO.

FROM BLACKOUT TO FULL-ON through SMOOTH STEPLESS CONTROL

Many operating characteristics of the new "PACKAGED" POWERSTAT Dimmers can be compared to the smooth gliding performance of an accomplished ice-skater. Light intensity is evenly and rapidly changed from blackout to full-on by the effortless action of the smooth riding brush-contact. The operating temperature is not icy-cold but is far below that of the heat-generating resistance type control. The dimming action is as precise as the precision timing of the performer on ice. These characteristics alone would recommend these new dimmers, but, when such features as simple installation, minimum maintenance, overload protection, UL approval...to mention a few...are inherent qualities, it is easily seen why the "PACKAGED" POWERSTAT Dimmer is ideally suited for use by small theatrical groups requiring compact, practical, economical, and easily operated dimming equipment.

The "PACKAGED" POWERSTAT Dimmers offer three individual, continuously adjustable, auto-transformer type dimmers in an attractive black, wrinkle-finished, self-contained cabinet. Each unit can be mechanically interlocked to a master control for group operation. A silent circuit-breaker combines an "on-off" switch with overload protection. Each dimmer operates from a 115 volt, 50/60 cycle, single phase source...output variable from 0-1700 watts...individual intensity-indicating lights.

The Superior Electric Company lighting control engineers are at your call...to assist in the development of your lighting control needs. Request Bulletin 347 for more information.

Write The Superior Electric Co., 4058 Demers Avenue, Bristol, Conn.

THE SUPERIOR ELECTRIC CO.
BRISTOL, CONNECTICUT

POWERSTAT VARIABLE TRANSFORMERS • VOLTCAB A-C POWER SUPPLY • STABILINE VOLTAGE REGULATORS

The Architectural FORUM May 1948
GET BETTER BRICKWORK
WITH BRIXMENT!

Good workmanship requires that all head joints in both face brick and back-up work be completely filled with mortar, by any of the three methods pictured below.

**Method 1.** Plenty of mortar should be thrown on the end of the brick to be placed. The brick should then be pushed into place. So that the mortar oozes out at the top of the head joint.

**Method 2.** A dab of mortar should be spotted on the corner of the brick already in place. Then plenty of mortar should be thrown on the end of the brick already in place. So there will be more than enough mortar to fill the joint completely when the next brick is pushed into place.

**Method 3.** A full trowel of mortar should be thrown on the wall. Then the brick should be shoved into this deep bed of mortar. So that the mortar oozes out at the top of the joint.

**BRIXMENT** permits the bricklayer to do the kind of work pictured above. It does not stiffen up too fast, when it hits the brick. It remains rich and plastic long enough to allow the bricklayer to place the brick, easily and accurately.

In addition to its greater plasticity, Brixment mortar has higher water-retaining capacity and bonding quality, and greater resistance to freezing and thawing. Because of this combination of advantages, Brixment is the leading masonry cement on the market.

LOUISVILLE CEMENT COMPANY, Incorporated, LOUISVILLE, KENTUCKY
Seaporcel...it’s practically ageless!

The Belasco Restaurant (Hollywood, California) is a new Seaporcel Porcelain Enamel job completed just recently. It’s new...it’s brilliant...

But...look at the “old timers” here depicted...these installations range from 7 years to 13 years in age. They are all sheathed in Seaporcel and...

STILL HAVE THAT “NEW LOOK.”

10 years young...Perry Theatre, Perryville, Pa., John Eberle, N.Y., Architect. Enter Tower Facade in Seaporcel.

...9 years young...Cambridge High & Latin School, Cambridge, Mass., C.E. Green, Boston, Arch. Decorative Towers in Seaporcel Limestone.

7 years young...Conway High School, Pittsfield, Mass. J.R. Rampson, Pittsfield, Mass., architect. All Splendrels in Seaporcel Porcelain Metal.

13 years young...Conard White Star Line Bldg., Boston, Arch. Kilham, Hopkins & Greedy, Boston. Curtain of Seaporcel dropped over old building.

Seaporcel* Architectural Porcelain Enamel is porcelain enamel deluxe...proved color fast and durable regardless of time or weather.

Write today for catalog showing applications and current jobs.

SEAPORCEL PORCELAIN METALS, INC.
23-24 Borden Avenue, Long Island City, N.Y.
Formerly Porcelain Metals, Inc.
Complete American Federation of Labor Metal Fabricating and Enameling Shop
Also manufactured on the West Coast by SEAPORCEL CORPORATION OF CALIFORNIA represented by DOUGLAS McARLAND & CO. 1491 Canal Street, Long Beach, California

providing an attractive view, the houses should be designed to face a landscaped garden or a natural scenic view and most of the rooms should have doors opening directly out to the garden and large window area. Instead of a hodgepodge of spotty and conflicting landscaping from home to home, one master landscape plan should be made. The residential street should be like a beautifully landscaped narrow country lane rather than a wide expanse of barren and glaring concrete. By providing special parking space for cars at each home, the street will no longer be required to serve the dual purpose of highway and parking lot. There should be play space in each yard, community social and recreation facilities to serve a number of homes. These suggestions for improvements are but a few of the many that could be cited.

Inglewood, Calif.

W. M. STIMSON

LIBRARY FOR SALE
Forum:

As a regular subscriber of The Forum I am taking the liberty of asking you if you can advise me of a way to dispose of my architectural library, consisting of about eight volumes of French editions and about 14 volumes of German editions. Some of these works are out of print and considered rare. If you so wish I can furnish a complete list of the volumes and their contents.

H. A. RAAPKE, Architect
1611 Davenport Street
Omaha, Neb.

WESTWARD HO!
Forum:

My husband and I are very interested in contemporary American architectural work...We have neither of us visited America and would very much like to do so some time. To this end I am writing to inquire whether there is any system of hospitality-sharing between American and English architects—whereby we could entertain an American for six weeks in return for a stay in America for a similar period.

My husband is aged 38 years and I am 31. He is a qualified architect (A.R.I.B.A.) and is in private practice. I should be pleased to let you have any further personal details if we could come to some arrangement. Address: Kent Lodge, Queen’s Crescent.

MARGARET P. REYNISH
Southsea, England

Forum:

For many years now I have looked forward to the day in 1949 when I hope to...

(Continued on page 48)
Dependability

...One Quality
a Sump Pump
MUST Have

Your clients will not be satisfied unless the sump pump you specify can be absolutely depended upon to operate instantly when needed...no matter how long it has stood idle. Dependability is one thing a sump pump MUST have.

Highest quality construction gives Penberthy Sump Pumps this dependability. The design is simple and rugged. Materials are copper and bronze throughout...immune to corrosion. The motor is a special type designed for vertical operation, with maximum resistance to moisture and built-in overload protection. The mercury switch is sensitive, reliable, and particularly adapted to float operation; it has no mechanical contacts to wear or spark.

Penberthy Automatic Electric Sump Pumps are carried in stock by jobbers everywhere. Specify them for Dependability.

Penberthy Injector Company
DETOIT 2, MICHIGAN
Established 1886
Canadian Plant • Windsor, Ontario

PENBERTHY AUTOMATIC ELECTRIC SUMP PUMPS

Constructed of Copper and Bronze Throughout

Made in Seven Models and Sizes
Here's an architect who knows how to please his clients and simplify his job of writing specifications at the same time! He's the fellow who checks over his plans, notes the rooms in which colorful, practical interiors are needed, then simply specifies Marlite plastic-finished wall and ceiling panels. To make the job complete, he specifies Marsh Mouldings and Marsh Adhesives and, in bathrooms and washrooms, Marsh Bathroom Accessories.

Genuine Marsh products offer every architect an opportunity to simplify specifications on new construction or modernization, in every type of building where beautiful, durable interiors are required. Complete information is available in SWEET'S FILE, ARCHITECTURAL, or direct from the factory.

MARSH WALL PRODUCTS, INC.
501 Main Street  Dover, Ohio
brings not only MORE LIGHT without annoying glare
...but a NEW experience in SEEING!

...the ceiling that actually
GLOWS WITH LIGHT!

for schools — stores — offices
High levels of illumination... 100—120—130—or more footcandles... but only a light meter would know it! That is the miracle of Sky-Glo... high levels of illumination without awareness of the fact! Ease of seeing... without awareness of the reason — so restful... unobtrusive... and stimulating is Sky-Glo lighting!

SKY-GLO IS A SYSTEM OF VINYLITE LOUVERS, CHANNELS AND FITTINGS... that make possible ceilings which glow with light. For rooms old and new. Expensive ceiling alterations are unnecessary as Sky-Glo can be installed below the ceiling, at any point from 6'0" above floor. Vinylite is a product of Bakelite Corp.; has a light transmission factor of 71%.

Sky-Glo cannot be described. You must actually be present in a Sky-Glo illuminated room. Then, only, can you appreciate the statement that Sky-Glo makes possible a new experience in seeing! Then, only, can you see what a difference there is between a glowing ceiling of light and individually hung light sources.

READY, NOW, is the Sky-Glo "Bulletin SC"... the book that tells why Sky-Glo is one of the most significant developments in fluorescent lighting... in terms of lighting performance... in terms of installation... application... modernization... maintenance! Mail the coupon for your free copy.

At 130 footcandles, ceiling brightness is less than 1 candle per sq. in. (452 footlamberts).

BENJAMIN LUMINOUS LOUVERED LIGHTING SYSTEM

Distributed Exclusively Through Electrical Wholesalers
LETTERS

X MARKS THE SPOT

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"SYSTEMS ENGINEERING" BY DUNHAM POINTS THE WAY TO GREATER PRODUCT EFFICIENCY

Proven in installations from Rockefeller Center to Main Street and in many of the world's largest housing projects to single-family dwellings. Dunham products are engineered to afford greater heating efficiency at lowest possible fuel costs. Because they are "system-engineered" you are assured that they have been manufactured for simplicity in installation.

When you specify Dunham products or Dunham Systems for your installations you can be sure that you get equipment that will afford the best in heating results. C. A. DUNHAM CO., 400 W. Madison St., Chicago 6, Illinois.

DUNHAM HEATING MEANS BETTER HEATING

qualify as an architect, because then I shall have taken the largest step toward realization of an ambition to live permanently in America. At the moment, I am anxious—as a preliminary to a longer stay—to work for an American architect during the coming long summer vacation...

Sixty five dollars seems to be the figure paid to students of this school as third year men, but I am fourth year. Moreover, I have had considerable building experience. Do you think I could rate more than $65?

My qualifications are as follows:

English Liverpool School undergraduate fourth year. age 31. Testimonials read: "Excellent draughtsman, character above reproach." Past experience and training: three years Liverpool Technical College, three years Liverpool University, seven years practical experience architect's office including three years as senior-in-charge. Maximum experience not maximum salary sought.

32 Princes Ave. Liverpool 8, England

Robert H. Boal

Forum:

As a reader of your magazine, I derive a great deal of interest from the comparison between American and British methods in design and general approach to architectural problems.

I am a student at a School of Architecture in Leeds, with a break of seven years in my course due to the war, and I wonder if, through the good offices of your magazine, I could be put in touch with a student at one of your schools over there in the U.S., so that we may correspond and compare our respective methods of architectural instruction.

I am just about to take my Intermediate at the end of my third year, so is there any student of equivalent standard in America who would like to exchange ideas?

15, Oak Bank Chambers
Shaw Lane
Leeds 6, England

Jack Rylatt

Forum:

I suppose it would be great fun (and I'd learn from it too) if I had a pen-friend in the States who studies architecture or interior decoration. I know it is a strange question, but you may know a possibility and therefore I give some particulars. I prefer the city of about my own age (25). My hobbies are: Architecture, Interior Decoration, Leica photography, psychology, sailing and dancing. My address is 31 Reeweg O.

Henk Breezeaart

Dordrecht, Holland

Don't be satisfied with less than a SUNROC

You're not getting full value for your investment unless the water cooler you buy offers the advantages of:

1 ADVANCED ENGINEERING

SUNROC offers exclusives such as its triple-purpose Super Cooler; a water cooler with generous ice-cube and refrigerated storage capacity. The static condenser—used now to give greater efficiency; quieter, more economical and dependable operation.

2 SPECIALIZATION

SUNROC specializes in water coolers. Each of its 17 modern models is tailored to some specific business, industrial or institutional need, styled to harmonize with its environment.

3 HIGH VOLUME

Sheer quality has made SUNROC the nation's biggest independent manufacturer of water coolers. Mass production efficiency enables SUNROC to undersell the industry as much as 20 percent below competitive models.

For further details on the SUNROC line, write for folder A.I.A. No. 29-H-1, SUNROC Refrigeration Company, Glen Riddle, Pa.

America's most complete line of water coolers, $199.95 up, F.O.B. Glen Riddle, Pa.

"SUNROC SERVES THE WORLD... a cool drink of water..."
Architects for these photo shops opened the fronts with glass—focusing attention inside to the displays.

That’s design for merchandising—Visual Front design that pays off in client satisfaction. This architectural treatment makes the entire store a showcase and is suited to every type of front—narrow or wide.

Glass offers wide design latitude—use it clear, translucent or opaque. Glass keeps its look of newness, washes sparkling clean, never needs refinishing. For information on types of glass available—and for interesting storefront design ideas—write for our Visual Fronts Book. Libbey-Owens-Ford Glass Company, 4458 Nicholas Building, Toledo 3, Ohio.
HERE IT IS!
COMPLETE Lighting Installations
GUARANTEED FOR ONE YEAR

Here's the big news you have been waiting for!

Sylvania Electric now guarantees for one year its entire line of fluorescent fixtures in installations of 100 or more units in one location.

Complete packages of light, including all metal parts, ballasts, starters, lampholders and fluorescent lamps—fully guaranteed against failure for a full 12 months from date of installation.

Never before in the lighting industry's history has such a guarantee been offered. This Sylvania guarantee means that we, the manufacturer, back up the one-year installation guarantee that has become the trademark of the qualified electrical contractor.

The National Electrical Contractors Association has for years proposed that electric manufacturers guarantee lighting satisfaction to their customers. This exclusive Sylvania guarantee does just that. Sylvania is able to offer this unprecedented guarantee only because of the high quality standards stressed in the design, manufacturing of parts, assembly and packaging of Sylvania lighting fixtures.

Sylvania Electric Products Inc., Fixture Division, Ipswich, Mass.

SYLVANIA
Makers of Fluorescent Lamps, Fixtures, Wiring Devices; Electric

The Architectural FORUM May 1948
Sylvania Guarantee

"In consideration of your purchase from XYZ Electrical Construction Co. of a complete Sylvania packaged lighting installation consisting of

<table>
<thead>
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<th>Number of units</th>
<th>Type of units</th>
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<td>100 or more</td>
<td>(fill in)</td>
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Sylvania Fixtures which were installed on Mo. Day Yr. Location of installation hereby guarantees that the Sylvania Fixtures listed above are free from defective materials and workmanship, and that under normal installation and operating conditions and when operated at rated voltage, they will be free from failure of fluorescent lamps, starters, ballasts, lampholders, sockets, or any other component part for a period of one year from the date of installation. Each complete Sylvania Fixture has been pre-tested in actual operation before leaving the Sylvania factory at which time it was in perfect operating condition. Damage incurred in transit or from handling is excluded from the terms of this guarantee.

"Sylvania agrees to furnish a new part in exchange for any part of these fixtures which may fail within a period of one year from the date of installation, provided you furnish full particulars within such period to any Sylvania office listed on the reverse side hereof, or your local supplier from whom you purchased these fixtures."

ELECTRIC

Light Bulbs; Radio Tubes; Cathode Ray Tubes; Electronic Devices
IN THE FORUM

over 50% of all Revolving Doors sold are replacements for swing doors!

DISPLAYED here are some of the customers that helped us write this ad. Space permits but a partial list. Some of them have used our revolving doors for over 50 years. In each case, the increased usable floor space, lowered heating and cooling costs, reduced infiltration of dirt, elimination of drafts and extremely low maintenance — all contributed greatly to reducing operating cost of the business. The profit advantages are so outstanding that in the past 20 years, over half of all revolving doors sold replaced swing doors. If you have an entrance problem, we will be glad to cooperate in working out the right answer. A letter will bring complete information.

INTERNATIONAL VAN KANNEL

1619 EDGAR ST. EVANSVILLE, IND.

EUGENE BAECK was born in Budapest in 1899, came to the U.S. in 1921. A graduate of the Royal Hungarian College of Architecture, he picked up American training with night courses at Cooper Union and New York University. He is a firm believer in decentralized city planning.

FRANK J. BEHRELE is President of Schul & Behrele Inc., a New Jersey firm specializing in the design and manufacture of interiors. Chief designer in his firm as well as owner, Mr. Behrele was educated in Europe, filled in gaps with night classes at Carnegie Tech.

RICHARD BELCHER, 1930 graduate of Cornell University, tried his hand at private practice—schools, churches, houses—before joining the staff of R. H. Macy. As head of their architectural department, he has found time to teach at Cooper Union until this year.

PIETRO BELLUSCHI, whose fine Italian hand can be seen in many a West Coast residence, is a native of Italy now designing in Portland, Ore. He studied architectural engineering in Rome and at Cornell, worked in the Idaho mines before settling down to a drafting board.

ARTHUR T. BROWN of Tucson, Ariz., worked six years for David Adler in Chicago before striking out to the Southwest. He established his own office in 1942 when partner Richard Morse left to join the Navy. His prime interest is housing and light-weight construction.

PAUL BRY, industrial designer, was educated in Germany and holds, among more artistic degrees, that of Doctor of Economy from Breslau University. He came to America in 1938, has designed shops, showrooms, interiors (from apartments to yachts), furniture and accessories.

J. GORDON CARR, New York architect who has specialized in industrial and commercial design, is opposed to “cold modern,” thinks hailing the International Style as “the answer to everything from bathtubs to an office buildings” is a great mistake. He is an M.I.T. graduate.

ROBERT CARSON and EARL LUNDIN both worked on Rockefeller Center from first sketches to completed buildings, graduated into their present jobs as Center managing architects.

SERGE CHERMAYEFF, Russian-born British-trained architect, has practiced in America since 1940. For several years he taught at Brooklyn College, in 1947 took over as head of the Chicago Institute of Design, following the death of its founder, Moholy-Nagy.

PETER COPELAND heads the New York firm of Peter Copeland Associates, specialists in store design. He studied at N.Y.U. and Columbia, believes that “the first tenet of good design is the individual character and personality of the store” not “abstract figures and research.”
Heat, Ventilate and Air-Condition with...

MULTI-VENT

The Only Air Diffusion System You Can't Feel
Can't See

MULTI-VENT is the only air diffusion system you can't feel because only Multi-Vent's exclusively patented total displacement valve and large perforated distribution plate can provide the very low velocity and widespread air delivery necessary to completely eliminate drafts and the subtle, annoying sensations of draft, i.e. uneven room temperatures.

MULTI-VENT is an air diffusion system you can't hear, because Multi-Vent's recommended duct velocities and air volume requirements are so low that no audible friction noise is generated by the entering air. In addition, the sound absorption qualities of the perforated distribution plates actually reduce the noise level in any room.

MULTI-VENT is the only air diffusion system you can't see, because only Multi-Vent can be completely concealed above the square perforated pans in a metal acoustical ceiling. Multi-Vent panels can also be lined up with the creases in fiber acoustical ceilings for almost complete concealment. In all other types of installation, with exposed or concealed ducts, Multi-Vent panels are less conspicuous than diffusers of any other make.

MULTI-VENT, moreover, is by far the most effective and efficient air diffuser on the market today! Accurate tests show that Multi-Vent's low velocity air delivery makes possible the use of much higher diffusion temperature differences without affecting the room occupants' comfort. This in turn greatly reduces the air volume usually required to take care of a given load... thereby not only making possible substantial reductions in the tonnage of the basic air conditioning equipment, but also adding greatly to the comfort factor. The result is truly superb comfort. No drafts... no sound of rushing air... no protruding ventilating fixtures. Write for Bulletin for complete information and specifications.

SIMPLE TO INSTALL • QUICK TO BALANCE • EASY TO CLEAN

THE PYLE-NATIONAL COMPANY

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CONDUIT FITTINGS • PLUGS and RECEPTACLES • TURBO-GENERATORS • LOCOMOTIVE HEADLIGHTS • FLOODLIGHTS
Special to the Waldorf!
Bigelow's 48' x 69' Rug!

Special to You!
The Same Custom Service for Your Problems!

Breath-taking in size—breath-taking in beauty! That's the specially designed and woven Bigelow Rug masterpiece you see above, in New York's famed Waldorf-Astoria Hotel!

Our designers planned it around the World Tree motif—to harmonize with the Scandinavian inspired décor. Our weavers loomed it—the largest rug ever produced by Bigelow—to cover over 3300 square feet of the Waldorf's main lobby!

Perhaps this is the most unusual assignment ever filled by Bigelow craftsmen. But the Bigelow service—specialized, custom planning by the Bigelow Carpet Counsel—is entirely usual.

If you have a problem—bring it to our Carpet Counsel. We offer the most complete and efficient service there is.

Let our Carpet Counsel experts help you get the most value from every carpeting dollar. Advice on colors and designs. Timesaving recommendations of carpets suited to your problems of beauty and wear. Supervision right through to the final installation. One of our 26 Carpet Counsel offices is near you—waiting to help. Call them in!

Bigelow rugs and carpets

Beauty you can see . . . quality you can trust . . . since 1825
It's true. Many-layer KIMSUL® insulation is fast becoming the favorite of builders and architects from coast to coast. For KIMSUL automatically provides uniform insulating efficiency over every inch of covered area. Its "k" factor is 0.27. It's the only insulation with the PYROGARD® fire-resistant cover. And one of the easiest to install quickly and profitably—no need for expensive machinery.

KIMSUL comes in handy, compact rolls, compressed to 1/5 installed length. To give maximum protection at lowest cost, specify it by thickness: Commercial Thick (about 1/2 in.) for walls and floors. Standard Thick (about 1 in.) for walls, attics and floors. Double Thick (about 2 in.) for attics.

Free insulation booklet. Here's a new, illustrated manual covering the latest techniques in the field. Write us for your free copy of the KIMSUL Insulation Book. Mail your request on your business letterhead.

KIMBERLY-CLARK CORPORATION
KIMSUL Division • Neenah, Wisconsin
for that old "Summer Complaint"

If it's "packaged" air conditioning... you can't do better than to specify the new USAIRco STORE CONDITIONER.

It's redesigned inside and out for better performance, for greater economy of operation. A new hermetically-sealed motor-compressor unit puts the USAIRco STORE CONDITIONER ahead in years of trouble-free service. A new water-saving condenser coil removes the generated heat from the compressor most efficiently and economically. And, there are many other outstanding features that make the USAIRco STORE CONDITIONER ideal for your packaged unit air conditioner applications.

Capacities in the STORE CONDITIONER are 3 and 5 ton. The unit is 83" high, 44" wide, and 22" deep. Ductwork can be attached to the unit to serve adjoining areas; and for year 'round service, a heating coil added will provide winter heating. For complete specifications and descriptive literature, please write to: UNITED STATES AIR CONDITIONING CORP., Como Ave. S.E. at 33rd, Minneapolis 14, Minn.

ENGINEERS AND MANUFACTURERS OF COMPLETE AIR CONDITIONING EQUIPMENT
True enough, Miami is a playland of golden sunshine and rustling palms. But it's a business town as well. Long air-minded, it has become one of the greatest international airports of the world. Even its skyline has that modern upswept look. OTIS is mighty proud of Miami. Why? Seven hundred and seventeen of its eight hundred and sixty-eight elevator installations are by OTIS.

**SQUARE ELEVATOR IN A ROUND HOLE.**
Why did Peter Cooper build a round elevator shaft in New York's Cooper Union in 1856? Legend has it, he thought a round car would carry more passengers than a square one. Today, a square elevator is doing the job very nicely. Rather upsetting to the old theory about a square peg in a round hole. What?

**COLLECTOR'S ITEM.**
Can a sudden avalanche of button pushing confuse a modern Otis apartment house elevator? Not in the least. It operates by 'collective control'. It simply 'collects' all the calls. Then it arranges them in proper floor sequence. One run up or down delivers everybody.

**OTIS LIGHTS THE WAY.**
Nobody, anywhere, anytime ever did it this way before.
What? Lighted an Escalator from inside. Otis balustrades are the first to glow with a soft translucent light. Eleanor Le Maire, prominent New York designer and colorist did the glamorizing. Attractive? Would you like to read the fan mail received by Rike-Kumier in Dayton, Ohio?

With 257 offices located in every state of the Union, OTIS is ready to help you plan, install and maintain freight and passenger elevators and Escalators for use anywhere.

"Escalator" is a registered trade mark of the Otis Elevator Company. Only Otis makes Escalators.
50 ACRES of

In construction products CECO ENGINEERING
Back in 1929, big savings were made in construction costs when Ceco provided 50 acres of steelform equipment and service for the Merchandise Mart, Chicago. Today you can make similar savings to offset rising prices. At the same time you can provide the most rigid sound-proof structure.

Yes, today as in 1929, concrete joist construction costs less than any other way of building, strength and durability considered. That’s because the use of Meyer steelforms reduces the amount of concrete needed for any space or live load.

A further saving is possible because a nominal rental charge is made for Meyer steelforms, since they can be moved from job to job and used time and time again from floor to floor. Construction is speeded up.

**CECO FIRST IN THE FIELD . . .**

Ceco originated the removable steelform method of concrete joist construction—the company is first in the field—actually providing more service than all competitors combined. So, for concrete joist construction, call on Ceco—the leader over all.

**CECO STEEL PRODUCTS CORPORATION**

**GENERAL OFFICES**: 5701 W. 26th Street, Chicago 50, Illinois

Offices, warehouses and fabricating plants in principal cities

See Ceco catalogs in Sweet’s Architectural File or send for free descriptive literature

**CECO STEEL**

makes the big difference

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Meyer steelforms completely erected on open wood centering, ready for placement of reinforcing steel and concrete.

In this photograph, the reinforcing bars are installed as detailed by Ceco, in proper relation to the erected steelforms.

Here the mesh, also known as welded wire fabric, has been placed in correct position and the pouring of concrete for the top slab has commenced.

**Partial list of other Ceco Products**

- Steel Joists and Roof Deck
- Metal Windows and Doors
- Metal Frame Screens
- Aluminum Storm Panels
- Metal Lath and Accessories
- Highway Products
- Corrugated Roofing
- Louvre Ventilators
ADOLPH NOYAK, a 1936 graduate of N.Y.U., has had his own New York office since 1946, specializing in industrial and commercial work, modern design only. He was formerly store architect for John Wanamaker, spent two years with the Grand Rapids Store Equipment Co.

ERNST PAYER is a Vienna-born architect now practising in Cleveland, Ohio. He is a man of many degrees: a Ph.D. in sociology and international law, a B.A. in architecture under Vienna's Josef Hoffmann, a Harvard M.A. under Walter Gropius and Marcel Breuer.

MILTON T. PFLUEGER has carried on his brother Timothy's practice since the latter's death in 1946. Milton went to work for his brother 18 years ago. Two designers—L. B. Miller and J. Scott—also long-time members of the firm, have recently been made associates.

JEFF REISNER and MAX URBAN formed their New York partnership in 1945. Both currently commute to New Haven as Professors of Architectural Design at Yale University.

JOHN RIDLEY, after graduation from the University of Toronto in 1937, spent two years working on schools, housing and office buildings in England and Sweden. After two years in New York, he decided to move West, establishing his own office at Seattle, Wash.

E. L. ROBERTSON is a Miami architect associated with northern designers on two Burdine department store jobs. Born in Mobile, Ala., he got his architectural education in New York and Atlanta offices, has concentrated on hotel, store, school, hospital and apartment design.

BURTON SCHUTT'S profitable variation of the architectural profession extends to backing his own design ideas. One such: Beverly Hills' famed Bel-Air Hotel. Schutt built Los Angeles at the age of 16, worked his way through art school as a building trades apprentice.

LEON G. SHERBURN, JR. has been head of the Sherburne offices since the death of his father in 1934. This New York store planning organization was started in 1965 by his grandfather, a pioneer in merchandising design. Sherburn, Jr., is a graduate of Trinity School.

WHITNEY R. SMITH, of Linda Vista fame, is a 35-year-old California architect who has seldom strayed from his native state. A graduate of U.C.S.C., he worked for Harwell Harris, William Pereira and other Los Angeles firms before setting up his own Pasadena office.

RAPHAEL SORIANO breathed the crest of the Beaux-Arts tide at U.S.C., where he was advised by the faculty to quit architecture. Rhode Island-born Soriano stuck to graduation in 1934, since then he has done design of buildings for some of the most notable schools and office buildings.

THE Cadet

BUILT-IN SHOWER CABINET

DESIGN NO. 19-B

The built-in Cadet promises to be one of the most popular shower cabinet models in the Fiat line. Redesigned with new construction features such as the elimination of all interior screws and with smooth curved corner joining the Cadet can be classed as the modern shower of the future.

The demand for the ultimate in clean cut appearance, and the trend toward a built-in or enclosed shower has inspired the new built-in Cadet. Equipped with a Zephyr or Dolphin glass door as illustrated the Cadet model 19-B is a natural for installation in the average, as well as the better class of homes.

The exclusive Fiat escutcheon type door frame conceals the joint between wall material and cabinet stiles. This unit is of particular interest to operative builders because of its beauty of design and savings over built-on-the-job shower construction.

Size 36"x36"x80". Receptor precast terrazzo with cast-in drain. Walls, bonded, galvanized, steel finished in white baked-on synthetic enamel. Can be supplied with Dolphin or Zephyr glass door, or shower curtain.

Metal Manufacturing Company

1203 ROSEC STREET, CHICAGO 13, ILL.

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LOS ANGELES 33, CALIF.

The architectural FORUM May 1948
York V/W Compressors are so constructed that all parts which may be subjected to wear can be removed easily for inspection or replacement. Hence, it may truly be said that York V/W Compressors for air conditioning and refrigeration applications, as units, will never wear out.

Cylinder liners, for example, may be readily removed and replaced...after long efficient service. Liners are centrifugally cast of nickel iron and honed to a mirror finish. Drilled ports provide for suction and unloading.

The cylinder liner is but one of the many exclusive design features of the York V/W Compressor and is representative of the thoroughness of York engineering throughout its complete line of refrigeration and air conditioning equipment.

York Corporation, York, Penna.

York's Engineering Assistance backs up York's Outstanding Equipment

Experience and practical technical assistance unequalled elsewhere are available to you as a York customer...wherever you may be.

In the Midwest District, for example, Manager Edwards located in St. Louis, assisted by twelve York-trained sales engineers, is at the service of York customers in this district. The highly practical, up-to-the-minute assistance and advice of these gentlemen are available to you at all times, whether you are planning, purchasing, installing or operating refrigeration or air conditioning systems or equipment.

E. F. EDWARDS District Manager
C. S. McDORMAN Sales Manager
Assisted by
Fred Downs
E. A. Froese
J. C. McDonald
H. W. Meinholdt
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W. Wilder

HEADQUARTERS FOR MECHANICAL COOLING SINCE 1885
There are 2000 homes like this in the gigantic development at Levittown, Long Island. There will be 6000 before the end of the year! Every one will have a Kentile floor in every room!

Levitt & Sons, miracle-performers in low cost construction, studied their floor problem carefully, decided finally on asphalt tile. Then they compared asphalt tile on every count. Result? Kentile won hands down!

Kentile deserved to win! Here’s why:

**Low cost for high class installations**

It’s a cinch to install — made to order for fast, low priced construction. Set square by square with 22 colors available, Kentile offers unlimited design possibilities. You can put a different floor in every room — give a house that custom designed look that usually goes with much higher priced building.

**Durability and how!**

For "problem" installations — for instance, in contact with earth — on concrete — Kentile is the solution again! Moisture and alkali resistant, with colors that can’t wear off because they go clear through — Kentile’s middle name is durability.

**Easy to clean**

The lady of the house will thank her lucky stars (and YOU) for Kentile. It’s so simple to keep spotless with easy washings — so little work to make it sparkle like brand new with occasional waxings. Kentile is a beautiful floor — and stays that way!

**Full color advertising in national publications**

Kentile’s advantages are no secret. A huge advertising campaign has built a tremendous acceptance among prospective home purchasers. Kentile helps to sell a house. That’s why Levitt & Sons, in their own hard-selling advertising, let readers know that each Levitt home includes a Kentile floor.

More reasons for Kentile’s superiority? Lots of ‘em! Ask your Kentile dealer. Find his name in the yellow pages of your telephone directory or, if not yet listed, write your nearest Kennedy office.

**David E. Kennedy, Inc.**

58 Second Ave., Brooklyn 15, N. Y. • 330 Fifth Ave., New York 1, N. Y. • Ring Building, 1200 18th St. N. W., Washington 6, D. C. • 1211 N.B.C. Building, Cleveland 14, Ohio • 108 Bane Allen Building, Atlanta 3; Ga. • Merchandise Mart, 22 West North Bank Drive, Chicago 54, III. • Kansas City Merchandise Mart Inc., 2201-3 Grand Avenue, Kansas City 8, Mo. • Western Merchandise Mart, 1355 Market Street, San Francisco 3, Calif.
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WITH A WATERFOIL RAINCOAT
now you can protect your weatherbeaten plant and decorate it to look like new...

Yes, you can fully restore your building exteriors and protect your buildings and contents against storms and weather by applying Waterfoil, the raincoat for masonry structures. Unlike other masonry coatings Waterfoil is made of irreversible inorganic gels which upon final hardening bond firmly both chemically and physically to the old surfaces. Water penetration is impeded thus helping to prevent further deterioration, spalling or rusting of reinforcing bars. Save the buildings you now have. Write for the important literature on Waterfoil today.

A.C. HORN CO., INC.
manufacturers of materials for building maintenance and construction
10th STREET & 44th AVENUE, LONG ISLAND CITY 1, NEW YORK
HOUSTON • CHICAGO • SAN FRANCISCO • TORONTO
IN THE FORUM

WILLIAM DENTON, JR., of Washington is "neither a confirmed functionalist or romanticist," but feels there is a place for all "styles" to meet the tastes of the public. A North Carolinian born and educated, he has specialized in large apartment and housing projects.

JOSE FERNANDEZ was born in Puerto Rico of three generations of architects. A Columbia University graduate, he also taught there from 1925-34. In practice, he has specialized in store design, is currently watching book shops for his forthcoming "Modern Store Design."

PAUL ARNOLD FRANKLIN of Port Washington, L. I. is a graduate engineer—Cornell University—who has specialized in factory construction and operation. He has tried his hand at industrial design and, before the war, at a residential practice throughout Long Island.

ALLEN FROBERG, a native Californian, has practised in Oakland near San Francisco since the middle Twenties. His B.S. in architecture is also a local product—from the University of California. He has specialized in large commercial and industrial structures.

VICTOR GREN and ELSIE KRAMMECK formed their partnership in 1939, have since specialized in merchandising design—from small shops and chains to large department stores.

JOHN MATTHEWS HATTON has maintained his own New York office since 1917, varying private practice with jobs as Consulting Design Critic for the Department of Parks under Robert Moses; Design Critic at New York University; Lecturer at Katherine Gibbs School.

WAYNE S. HERTZKA and WILLIAM KNOWLES established their present San Francisco partnership 15 years ago. Current work includes a $1 million atomic energy laboratory.

LEONARD HUTTON was born in Austria and studied design in Berlin. He came to America in 1939, has followed here his European specialty of store and home interiors. Among his New York designs: Tourneau Watch Shop; the Waldorf Astoria's Town & Travel Shop.

GEORGE FRED KECK, pioneer in solar house design, opened his Chicago office in 1926, took in younger brother William in 1931. Both men trained at the University of Illinois. Their brief: "Get rid of emotion and tradition, get to the facts of contemporary construction."

MORRIS KETCHUM, formed his partnership with Gina and Sharp in 1944 after approximately ten years apart of independent practice. Best known for their polished shop designs and integrated shopping centers, they have also done houses, offices, factories, package design.
STANDARD PARTS are the answer… building products that are standardized for lower first cost and installation economy, yet planned in families of related products which provide a broad choice of types and sizes.

Fenestra Building Products—Windows, Doors and Metal Panels—make it possible to meet almost any design or functional need with standard parts. Sizes are co-ordinated with dimensions commonly used in modern construction practice. And they’re all quality products, worthy of the well-known Fenestra name.

STANDARD PARTS FOR MODERN STORES

Steel windows . . . Fenestra Residence Casements provide attractiveness, ventilation and daylight for this restaurant front and for apartments or offices above. Other standard Fenestra Windows serve well in other parts of the store. Commercial Projected Windows for side walls—Security Windows, with built-in steel guards, for window protection along-side alleys, fire escapes and near adjacent buildings.

Metal doors . . . Fenestra Fireshield Swing and Slide Doors are ideal for many types of commercial buildings. Sturdy, easy-operating, trouble-free. Swing Doors come complete with frames and hardware, machined, fitted, ready to attach. Slide doors also complete with hardware. No mortising, no drilling, no prime painting. You know they’ll fit.

Metal panels . . . In this modern shopping center, Fenestra Type AD Panels are cantilevered to provide a sheltered walk, affording a flat top surface for waterproofing, and a smooth, attractive underside. Walls are Type C Panels, filled with insulation and vapor-sealed. A wide range of types and sizes permits easy application of Fenestra Panels for floors, walls, roofs, ceilings and partitions.

These three families of Fenestra Building Products present many interesting design possibilities and money-saving benefits for all types of buildings. Get the facts about them today. See Sweet’s Architectural File for 1948 (Sections 16a-14 and 3c-1). Better yet, call or write us.
Wherever...

"NEW FREEDOM GAS KITCHEN"...

1928 ENGLISH HALF TIMBER HOUSE... owned by Mr. and Mrs. George Payne of Grand Rapids, Michigan... as it looks today, after complete remodeling job. Notice the new wing over formerly detached garage and large picture window. Most interesting feature in entire modernization program is the model "New Freedom Gas Kitchen"* shown below.

BEFORE remodeling... kitchen was typical of 20 years ago... cut-up, commonplace, inefficient.

AFTER new alcove was added and lavatory moved... kitchen center is both inviting and highly efficient.

1948 "NEW FREEDOM GAS KITCHEN"... With ample storage and counter space... special ventilating system... convenient completely separate eating nook... and the finest modern appliances that money can buy. Here they are: a 6-burner automatic Gas range built to "CP" standards... an 8-foot full Servel Gas refrigerator... a double automatic sink serviced constant hot water from a new automatic Gas water heater.

Why the "New Freedom Gas Kitchen" Program is a Success...

... from the point of view of The Banker: "An all-Gas kitchen makes it easier to finance the whole house. Less risk is involved—particularly with long-term mortgages."

... from the point of view of The Architect: "I like the space-saving design of modern Gas appliances... and their money-saving simple connections. They fit into any size or type of kitchen."

... from the point of view of The Buyer: "A completely equipped modern kitchen with new Gas appliances makes a house worth more, especially if you have to resell."

... from the point of view of The Builder: "You don't have to 'sell' a house with a 'New Freedom Gas Kitchen.' People know it's the best there is today... and that it'll stay that way."

The Architectural FORUM May 1948
here's news in building there's a...

FREEDOM GAS KITCHEN

Remodeling...designing...or building...
pays to use this great Selling Tool

See how easy it is to follow these four simple rules for a "New Freedom Gas Kitchen."

1. SPECIFY a new automatic Gas range built to "CP" standards... first choice of good cooks everywhere!

2. INCLUDE an automatic Servel Gas refrigerator... the only modern freezing system with no moving parts to wear out.

3. INSIST on an automatic quick-recovery Gas water-heater... a "must" for an automatic dishwasher or automatic laundry.

4. PROVIDE a step-saving, work-saving kitchen plan. It's the logical framework for the world's most work-saving appliances.

Free! New promotional material to help you tie in with this great nation-wide program. Ask for a complete set from your local Gas Company—or write direct to:

AMERICAN GAS ASSOCIATION
420 LEXINGTON AVE., NEW YORK 17, N.Y.
Devoe 87 Spar Varnish Has Demonstrable Superiority

Stroboscopic photo shows that a ball made of Devran*, the new Devoe synthetic resin used in 87 Spar Varnish, bounces higher than either a golf or tennis ball.

"Bounce" is simply a short way of expressing the resilience and toughness which give Devoe 87 Spar such notable resistance to physical damage. Equally demonstrable, both in the laboratory and in actual use is its exceptional resistance to damage from liquids including alcohol and hot cleansing solutions.

Specify Devoe 87 Spar wherever a superbly durable and beautiful finish is called for—on floors, woodwork, furniture and boats.

Specify Devoe 87 Spar wherever a superbly durable and beautiful finish is called for—on floors, woodwork, furniture and boats.

*Patent Applied for

ANOTHER DEVOE PRODUCT

Distributed by
Peasley-Gaulbert Paint & Varnish Company
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Wadsworth, Howland & Company
Devoe & Reynolds Company, Inc.
787 First Avenue, New York 17, N. Y.

GILBERT V. STEELE is vice president and chief engineer in charge of all design for Abbott, Merkt & Co., Inc. This firm specializes in department store structures such as warehouses, delivery stations, motor truck terminals, parking garages and materials handling systems.

LESTER TICHT, architect for William Zeckendorf's proposed $50 million shopping development in Flushing, is also a consultant to a number of railroads, department stores, corporations. He was educated at Columbia and abroad, established his present office in 1944.

CLARENCE WICK heads the Portland partnership of Wick, Hilgers & Scott, formed in 1945. All three men studied architecture at the University of Oregon. Hilgers was design chief for the Bonneville Power Administration; Wick was structural designer of the power house.

WALTER WURDEMAN & WELTON BECKET boomed their Washington University friendship into one of the largest architectural businesses in the U. S.—$117 million worth of current work.

WILLIAM WILSON WURSTER, as by now every Forum reader must know, is both the architectural dean at M.I.T. and San Francisco partner of Theodore C. Bernardi, who for 17 years has had time to replan his own house, and Donn Emmons, ex-naval officer.

MONARCH

INSTANT EXIT PANIC DEVICES

WRITE TODAY for illustrated literature, or refer to Sweet's Catalog, for information on the types of devices you need. Our easy-order information will speed your specification listing.

CLAYTON & LAMBERT MFG. CO.
1709 DIXIE HIGHWAY • LOUISVILLE 10, KY.
Setting for industrial efficiency

INTERIORS of Facing tile

How can a wall help production?
In many ways, if it’s a wall of Structural Clay Facing Tile. It can help increase workers’ efficiency, decrease operating costs, protect product processing, afford greater plant sanitation. In food, drug and chemical plants, or in any industry where maximum cleanliness is vital to production, Facing Tile is ideal. It’s impervious to bacteria, grease, dirt, steam, blood or brine... resists most acids... cleans quickly and easily with soap and water or hosing. And employees have a lighter, brighter place to work, do a better job in clean, cheerful interiors of Facing Tile. Facing Tile is economical. It builds fast, saves construction time and money. It’s built to last. Made of dense, light-burning fire clay, it will not crack, scratch or decay, will need no refinishing, no redecorating, no “extra” upkeep... ever! It’s structurally strong, fireproof, flexible in design.

Facing Tile is available in a variety of light-reflecting colors, glazed or unglazed, in efficient modular sizes. For additional data contact any Institute member or see Sweet’s Catalog.

SEND FOR MODULAR FACING TILE HANDBOOK
Free to registered architects and engineers who write on their letterhead, 50c to others. Address Desk AF-5 of the Institute.

FACING TILE INSTITUTE
1756 K STREET, N. W. • WASHINGTON 6, D. C.

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Now! STANDARD EQUIPMENT WHICH GIVES Custom Designed LIGHTING

PITTSBURGH REFLECTOR COMPANY PRESENTS FOR THE FIRST TIME a line of recessed units in architectural modules—whose application is limited only by the requirements of the designer. These units may be mounted individually, in continuous rows, patterns and squares.

FOUR INTERCHANGEABLE SHIELDING ASSEMBLIES provide every type of shielding. Each Assembly is self-contained within a metal-frame and quickly attaches to the Troffer. Frames are piano-hinged and latched to simplify maintenance.

COMPANION INCANDESCENT EQUIPMENT, designed especially for use with Universal Troffers, complements the line and gives the “accent” lighting needed for planned lighting installations.

For details on the Universal Troffer and companion equipment, send for Advance Notice Sheet 40.

PITTSBURGH REFLECTOR COMPANY
OLIVER BUILDING • PITTSBURGH 22, PENNSYLVANIA
MANUFACTURERS OF FLUORESCENT AND INCANDESCENT LIGHTING EQUIPMENT DISTRIBUTED BY BETTER ELECTRICAL WHOLESALERS EVERYWHERE

Permaflor Lighting Engineers at All Principal Cities
Masonite Presdwood is a versatile, handsome hardboard that measures up to almost every requirement of design, construction, and remodeling. It is a better, stronger, wonder wood, refined from natural wood into grainless, hard and durable panels — uniformly very dense. Now priced competitively with other materials, Presdwood is often more economical because there is so little waste. It is worked readily with either wood- or metal-working tools and can be treated with any standard finish, veneers, decals or rich-looking grains. Available at dealers, either Untempered, or Tempered to extra hardness. Write for technical data to Masonite Corporation, Dept. AF-5, 111 W. Washington St., Chicago 2, Ill. *Trade-marks Reg. U. S. Pat. Off. "Masonite" signifies that Masonite Corporation is the source of the product.
YOU FACE NO STYLE OBSTACLES WITH BASIC OAK FLOORING

The natural beauty of oak flooring welcomes any styles or colors in home furnishings. It is especially budget-wise for those new-home builders who plan to use their present furniture at first, adding new pieces from time to time as circumstances permit.

This same adaptability permits changing of wallpaper, paint, and rugs without restraint, because the warmth and charm of oak accept new colors harmoniously. Thus wide latitude is given to fashion-leaders who wish to adopt the styles of the year or the season.

Oak is the sensible base, too, for wall-to-wall carpets. It is smooth and firm, yet resilient, giving carpets longer life, making them easier to clean. When they wear out, wholly or in spots, a quick, inexpensive return can be made to lasting oak floors.

We suggest that for complete flexibility in decor, new homes start with beautiful, durable, adaptable oak floors.

ASK FOR ARCHITECTS' DATA BOOK—which gives quick and usable information for specifying, laying, finishing and maintaining oak floors. Available from your local oak flooring dealers or from the National Oak Flooring Manufacturers' Association, 814 Sterick Building, Memphis, Tenn.

OAK FLOORS
BEAUTY • DURABILITY • ADAPTABILITY • ECONOMY

ANNOUNCEMENTS

TWO TOWN-PLANNING TOURS—one of European reconstruction projects and the other of U. S. urban developments—are being sponsored this summer by World Study-tours, Columbia University, New York 27, N. Y. The European trip, intended for specialists and advanced students of regional and community planning and housing will consist of a five and a half weeks' itinerary through England, Czechoslovakia, Poland and Sweden—countries whose reconstruction programs will provide study of typical planning problems in two west and two east European countries. Herman Field A.I.A., Director of Building Plans for Cleveland College, will act as leader of the group. Overall cost for the round trip from New York City (July 16-September 9) is $1,275.

The second tour, which will survey urban planning, housing and architecture in east-central U. S., will be conducted from July 6-August 14. Traveling will be by special arrangement with individual car owners under the directorship of J. Marshall Miller, Columbia University Professor of Planning. The route will cover the following housing centers: New York City, Philadelphia, Baltimore, Greenbelt, Washington, Williamsburg, Richmond, TVA, Knoxville, Louisville, Cincinnati, Chicago, Milwaukee, Detroit, Toledo, Cleveland, Buffalo and Albany. Anyone interested in joining the group should contact Professor Miller as soon as possible.

THE PENNSYLVANIA STATE COLLEGE DEPARTMENT OF ARCHITECTURE announces that, beginning with the Fall Semester, its curricula in architecture and architectural engineering will be expanded to a five-year course.

THE DEPARTMENT OF ARCHITECTURE at Pratt Institute, Brooklyn, N. Y. announces that courses in abstract design, architectural design, construction and town planning, have been added to round out its new five-year program.

THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA announce the formation, throughout the U. S., of civilian engineer construction units affiliated under the Organized Reserve Corps. Construction associations taking part in this program will sponsor and assist in organizing service-type units whose personnel will have civilian occupations similar to their projected military tasks. More than 70 of the planned-for 100 units have already pledged support.

THE SECOND STORE MODERNIZATION SHOW will be held in the Grand Central Palace, New York City, July 6-10. A special feature of the show is the series of clinics on "Layout and Traffic," "Lighting and Color," "Displays and Fixtures," "Store Fronts" and "Planning and Budgeting." Projects prepared by students of more than 20 colleges on "The Shopping Center of the Future" will be on view. Awards of $500, $250, $125 and two of $75 each are offered for the best designs; the New York Chapter of the American Institute of Architects is cooperating in judging and sponsoring this contest.

VAN DOREN, NOWLAND & SCHLADERMUNDT, industrial designers of New York and Philadelphia, announce their affiliation with the European Field Research and Design Unit in London, England, and Le Compagnie Pour L'Etude d'Equipment Industriels in Paris, France. The work of the American company will in many cases represent a collaboration whereby basic American machinery can be adapted for more specialized European needs.

LIPPINCOTT & MARGULIES, INC. is the new official name of the New York design firm formerly known as J. Gordon Lippincott & Co. (Continued on page 76)
"NOW, TAKE WINDOW SHADES... only jerry builders and penny pinchers never learn that the best equipment is the most economical. Certainly in my experience, Columbia window shades stay on the job longer, earn their cost in better service."

PERFECT PERFORMANCE is second nature, since they're famous for "CCC"—Columbia-Controlled-Construction. Every step in shade and roller making takes place under Columbia's control. Result: quality control throughout, product leadership.

ROUGH WEATHER, TOUGH TREATMENT—you can expect these for your shades! Columbia shades stand up to such hazards . . . resist cracking, fading, too . . . clean easily . . . so you save on maintenance. In short, Columbia shades behave better, longer!

IT'S A CASE OF TRUE dovetailing: What you require of a shade, what Columbia shades give you. For Price, Style, Proper Light Control, Smooth Operation, Easy Care, Longer Wear . . . Columbia's the name to ask for.

There's a just-right Columbia shade for every institutional and commercial use . . . there's a Columbia authorized dealer ready to serve you. Let him show you what's been happening to shade styling, to shade colors. Let him help you meet your shade needs through "CCC".

"CCC" means Columbia-Controlled-Construction
Protect your clients with
Gold Bond Rock Wool Batts

They’re full-thick

They’re fireproof

You have a real obligation and a definite responsibility to make sure your clients get two things from the insulation you specify—full fire protection and maximum efficiency for fuel savings and comfort. Gold Bond Rock Wool Batts are as fireproof as the rock from which they’re made. And when you specify them full-thick—not one or two inches thick—they’ll completely fill the wall space between the studs and provide an effective fire barrier and full insulation value. Play it safe! Always specify full-thick Gold Bond Rock Wool Batts.

You’ll build or remodel better with

Gold Bond

NATIONAL GYPSUM COMPANY
BUFFALO 2, N.Y.

Over 150 Gold Bond Products including gypsum lath, plaster, lime, wallboard, gypsum sheathing, rock wool insulation, metal lath products and partition systems, wall paint and acoustical materials.
Application of Miller Fluorescent Troffer Lighting Systems is boundless, giving stores, schools, offices, factories good light as an integral part of the architecture, plus this added benefit—ceiling patterns as desired... CEILINGS UNLIMITED.

Miller Lighting Service is all-inclusive. It covers the needs of Planned Commercial and Industrial Lighting.

Miller 50 and 100 Foot Condensers (Continuous Wireway Fluorescent Lighting Systems) have been established as standard for general factory lighting. And Miller incandescent and mercury vapor reflector equipment has broad factory and commercial application.

Miller field engineers and distributors, conveniently located, are at your call.

Miller Furring Hanger (patented) simplifies installation. Miller continuous wireway cuts wiring and fitting costs. All units are Bonderized for corrosion resistance.
Does your work get the "SECOND LOOK"?

Ever see people drive past a home or building and were so impressed by its beauty that they turned around and drove by again for a "second look"? Invariably, these "second looks" are fostered by outstanding architectural treatment worked out in distinctive materials. Of all exterior finishes, one material predominates for getting "second looks"—that material is Medusa White, the Original White Portland Cement.

For 41 years Medusa White has helped architects create "second look" work. Consider for a moment how Medusa White accomplishes this end. This cement and its twin, Medusa Waterproofed White Portland Cement, make America's finest stucco. Whether gleaming white or tinted with colored aggregate, Medusa Waterproofed Stucco retains its beauty for years. Water containing dirt is repelled at the surface, consequently the dirt washes off.

The most beautiful cast stone doorways, building trim and sculptured work—construction that always creates "second looks"—is cast with Medusa White. Outstanding industrial buildings of white or white and gray architectural concrete are made with this cement. Floors too, of sparkling, colorful Terrazzo, get their "second look" if that Terrazzo has as its matrix Medusa White.

The story of Medusa White for stucco is found in the book, "A Guide to Finer Stucco". Another booklet, "Medusa White Portland Cement", tells of its other uses. Architects who want their finished work to merit "second looks" should send the coupon below for these booklets. They're free, of course.

"FIFTY-SIX YEARS OF CONCRETE PROGRESS"

MEDUSA PORTLAND CEMENT COMPANY
1013-2 MIDLAND BUILDING • CLEVELAND 15, OHIO

Gentlemen: Please send me copies of the free booklet, "A Guide to Finer Stucco", and "Medusa White Portland Cement".

Name
Address
City State

Also made by Medusa Products Co. of Canada, Ltd., Paris, Ont.

A Medical Building (above) is now being erected by the Connecticut Mutual Life Insurance Co., in Hartford, Conn. Connecting directly with the Hartford Hospital it will contain office suites for about 90 doctors. This will not only facilitate consultations with patients but will consolidate other hospital services. A complete laboratory is provided, which although under separate management, will work closely with the hospital. A system of forced ventilation is employed throughout, with steam heating through flush copper convectors. Moore & Salisbury were architects.

A COMBINATION GARAGE AND FM RADIO BUILDING in Washington, D. C. was designed by architectural associates Goldwater & Yurchenko to allow for several stages of construction without interfering with business operations. The first stage, (see lower half of cut) provides basic gas station facilities for a concern already in existence, as well as offices and a small studio on the second floor for WCFM, the Potomac Broadcasting Cooperative. The second stage will furnish extra garage facilities on the ground level with a full studio-auditorium above. Final design (upper half) shows four stories of rental office space above the studio floor.

The entrance to WCFM's offices is given desired prominence by a visible, glassed-in stairway. Vertical concrete louvers and a deep overhang protect windows facing south from excessive sun while still allowing plenty of light. The studio will be of the usual floating

(Continued on page 80.)
ONE WAY TO QUALITY!

NATIONWIDE

Roddiscraft
WAREHOUSE SERVICE

There's one way to be sure of the best — specify Roddiscraft flush doors and hardwood plywood.

Roddiscraft doors and plywood have the two essential elements of quality — the finest materials, plus skilled craftsmanship.

Veneers from our own northern hardwood timber tracts—seasoned hardwood crossbandings, selected kilndried core blocks — skillfully molded by Roddis men with a fifty year heritage of craftsmanship and knowledge of wood.

You can see the signs of craftsmanship in the beautifully matched faces, in the silken surfacing — in the clean edges — in the square, true cut.

Yes — compare Roddiscraft point by point, see for yourself why Roddiscraft is the one way to assured quality.

Roddiscraft Roddis Lumber & Veneer Co.
MARSHFIELD, WISCONSIN
HERE...NOW!
a new, better roof deck material!

KAYLO
Insulating Roof Tile

With a unique combination of advantages for Architects, Contractors, Owners

Kaylo Insulating Roof Tile is an entirely new building product, developed by the Owens-Illinois Glass Company. Composed primarily of reinforced calcium silicates, Kaylo Roof Tile is fireproof and as much as four times lighter than other materials now commonly used for roof decks.

Kaylo Roof Tile offers a unique combination of advantages. It is structurally strong yet extremely lightweight and easy to handle. Kaylo Insulating Roof Tile is fireproof and contains only inorganic and non-combustible materials.

Kaylo Roof Tile is easy to install. These lightweight tiles can be laid on joists, standard “T” bars, Stran-Steel or specially designed American Structural sub-purlins. Close fitting is insured and grouting minimized because Kaylo Insulating Roof Tile can be cut on the job with power or hand saws and easily fitted into openings of odd sizes and shapes.

Pre-cast for easy installation

Each Kaylo Roof Tile is 36 inches long, 18 inches wide and 25/6 inches thick, and is reinforced with a wire mat incorporated into the lower one-third of its thickness.

Kaylo Roof Tile is more than strong enough for typical deck requirements, and its light weight greatly reduces dead load on buildings.

Kaylo Insulating Roof Tile is manufactured by American Structural Products Company, Toledo 1, Ohio, a wholly owned subsidiary of the Owens-Illinois Glass Company. American Structural Products Company has taken over the manufacture and sale of Kaylo Insulating Roof Tile and other structural products of the Owens-Illinois Glass Company.

Mail coupon for technical data and sample

Kaylo Roof Tile is easily fit to odd spaces. Can be cut and shaped with ordinary carpenter tools or power driven tools.

LAYING KAYLO ROOF TILE on Stran-Steel. Each tile weighs only 21 lb. Note how the tile slips neatly into place on sub-purlins.
**PHYSICAL CHARACTERISTICS**

**WEIGHT**
- Density (lb. per cubic foot): approx. 20 lb.
- Weight per tile: approx. 21 lb.
- Weight per square foot: approx. 4.5 lb.

**STRENGTH**
- Average modulus of rupture: 175 lb. per sq. inch
- Average modulus of elasticity: 16,000 lb. per sq. inch
- Average compressive strength: 300 lb. per sq. inch

**INSULATING VALUE** (BTU/square foot/hour/*fahrenheit)
- "K"—for inch thickness: .62
- "U"—for standard tile: .20
- "U"—for standard tile plus built-up roofing: .19

**FIRE RESISTANCE**
Kaylo Insulating Roof Tile units resist typical building fires, as defined in the standard A.S.T.M. fire curve, for more than one hour.

**LIGHT REFLECTIVITY**
Light reflection factor: approx. 80%

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**Check these advantages of KAYLO Roof Tile**

1. Kaylo Roof Tile is **LIGHTWEIGHT**
2. Kaylo Roof Tile **INSULATES**
3. Kaylo Roof Tile is **FIREPROOF**
4. Kaylo Roof Tile is **STRUCTURALLY STRONG**
5. Kaylo Roof Tile is **EASY TO HANDLE**
6. Kaylo Roof Tile is **EASY TO CUT AND FIT**
7. Kaylo Roof Tile **REFLECTS LIGHT**
8. Kaylo Roof Tile can be **PAINTED**
9. Kaylo Roof Tile is **NOW IN SERVICE** on many OWENS-ILLINOIS buildings
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AMERICAN STRUCTURAL PRODUCTS COMPANY
subsidiary of OWENS-ILLINOIS GLASS COMPANY
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Toledo 1, Ohio

Gentlemen:
Please send me, without obligation on my part, the following information on KAYLO Insulating Roof Tile:
- Construction details
- Specifications and technical data
- Sample

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Firm:
Street:
City: State:

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*Kaylo* Insulating Roof Tile
Thousands of Problems Like These Were Solved with TRANE Heating and Air Conditioning

how about YOUR Problem?

The owners of these smart new apartment houses knew that some day air conditioning might be necessary to attract tenants. As an economical solution to their problem, they chose a Trane system that gave them heating with provision for easily adding cooling to the existing system later.

PROBLEMS IN COMFORT

When this new coaxial cable plant was built, comfort requirements were found to be diverse. To provide needed ventilation for the cafeteria, conditioning fresh air for the hospital, and regulated heating for the factory areas, a Trane system was selected.

This candy manufacturer needed chilled and dehumidified air to keep chocolate from turning white, yet he didn't want his workers uncomfortable. It was found that a Trane system could provide the delicate temperature balance needed for both chocolate and workers.

PROBLEMS IN PROCESSES

The dyeing and bleaching vats at this bleachery gave off vast quantities of water vapor. The vapor condensed on ceilings and dripped onto the cloth. A Trane system got rid of the vapors, put an end to cloth spoilage, and improved plant working conditions.

There is a Trane system to solve every kind of heating and air conditioning problem efficiently, whether it be comfort or process—domestic, commercial, or industrial. Trane systems are designed by architect, engineer, or contractor to fit your application. 200 Trane Field Engineers offer their counsel. Users' names on request.

TRANE MANUFACTURING ENGINEERS OF HEATING and AIR CONDITIONING

THE TRANE COMPANY, LA CROSSE, WISCONSIN

ALSO, TRANE COMPANY OF CANADA, LTD., TORONTO

A NEW LABORATORY (above) for the Portland Cement Association is now under construction at Skokie, Ill. The building (Carr & Wright, architects) will comprise two sections, a main wing two and three stories in height, and an auxiliary wing of a single story. Provision is made for more than 25 specialized laboratories: moist curing rooms, fog rooms, low temperature rooms, freezing and thawing rooms. These will accommodate the extensive research program planned for testing the durability of concrete structures under all climatic conditions. As is fitting, the laboratory itself employs a reinforced concrete frame as well as a concrete exterior; interior partitions are of concrete masonry.

AN EIGHTEEN-STORY APARTMENT HOTEL on East Central Park, New York City, will provide 89 apartments (two and a half to five rooms) for purchasers who can afford the $9,200 $36,000 cost of cooperative ownership. Wide, oblique windows make the most of the building's view of Central Park. Architect Rosario Candela designed the structure; Samuel Minskoff & Sons are builders.

EXHIBITS

THE CHICAGO INSTITUTE OF DESIGN has prepared a traveling exhibit of its student work and methods of instruction. The show consists of 45 panels which incorporate over 125 photographs illustrating all phases of study at the Institute: foundation courses, experimentation in line, color and materials, hand sculptures and photograms; architectural plans and time and motion studies; photography, product and furniture design; visual design, advertising, typography and display arts. Three copies of the exhibit have been made; one for the permanent use of the Mississippi State Board of Regents; two others which have already been scheduled for a number of showings throughout the country. At present they are on view at Harvard University and in Toledo, Ohio. The rental fee for a month's showing of the exhibit is $50 or—with extra three-dimensional material—$75. Insurance and postage are extra. Wall space required is about 200 ft. for the 45 panels, each of which is 3 x 4 ft.

THE SCULPTORS GUILD OUTDOOR EXHIBITION announces that its first postwar exhibit will be held in New York City, May 2 to July 30. Through prewar exhibits this society did effective spadework in re-emphasizing the use of sculpture in architecture.

(Continued on page 84)

80 The Architectural FORUM May 1948
THEY'VE PLANNED
for tomorrow's wiring today

AT OKLAHOMA PAPER COMPANY

Planning a paper plant—like planning any other building—is a struggle with obsolescence from the time the first pencil mark goes on the drawing board. And it's just this kind of swift old age which the Oklahoma Paper Company was fighting when it equipped a brand-new addition to its Oklahoma City plant with General Electric Fiberduct underfloor raceways.

This kind of planning—in anticipation of changes in floor arrangement and operations—calls for an electrical system that can be changed to meet any condition, at any time, at little expense. At the Oklahoma Paper Company, flexibility like this is provided by a network of Fiberduct raceways laid on 14-foot centers in the concrete floor. With this ample system, new outlets can be installed practically anywhere in the floor simply by tapping into the raceway. New circuits can be added anytime, without ripping up floors.

In the planning stage of any project, consider G-E Fiberduct raceways for their adaptability to changes in building layout, to new demands on electrical capacity, and to new types of electrical equipment. Insist on G-E Fiberduct raceways for buildings that must stay electrically young. If you're interested in knowing more about this adaptable system, contact your nearest General Electric merchandise distributor, or write to Section C 2-54, General Electric Company, Bridgeport 2, Connecticut.

How it's done

Noncorrosive, nonmetallic Fiberduct raceways, laid in monolithic or slab and fill constructions, can be laid out in patterns as simple or complex as present and future building facilities may require. Accessible handholes at junctions permit easy installation of new circuits. To provide a new outlet after the floor is laid, merely make a small opening in the floor over the raceway, pull the wires through, and install the outlet. The job is done with no interruption of the building's facilities—and at low cost.

GENERAL ELECTRIC

FIBERDUCT Raceways
FOR ELECTRICAL FLEXIBILITY
Wrestling with a Carpet Problem,

EMBARRASSED because your client...or client's wife...or his girl friend (girl decorator-friend, that is) is asking a lot of technical carpet questions you don't have the answers for?

AT YOUR WIT'S END trying to figure the relative merits of Velvet, Wilton or Axminster...whether 3/4 is a better buy than 12/4?

RELAX, BROTHER! Just call in an Alexander Smith sales representative or contractor. He's a carpet specialist, and he'll make you one — as far as your job in hand goes — in no time at all.

No matter whether you're figuring on a new job or a renovation...a six-figure project or just a rent-payer...a store, theatre, hotel, club, institution, housing development — anything that involves carpet, you'll save yourself time, worry and money by calling in an Alexander Smith sales representative or contractor at the outset. He will:

1. Cut your cost by keeping yardage down.
2. Save on upkeep by advising the most economical weave and quality for each specific location.
3. Increase your satisfaction by suggesting designs and colors which harmonize best with your interiors.

Alexander Smith sales representatives and contractors handle both the Alexander Smith and Masland lines which include a complete range of weaves, qualities and colors suitable for every type of carpet installation. They will be glad to furnish you with samples.

ALEXANDER SMITH • MASLAND

Contract Carpets
Mr. Architect?

Illustrated: Masland's "Scranton", 1129/35, a Wilton carpet especially suitable for hotels and stores.

Contract Service Department
Alexander Smith & Sons Carpet Company
295 Fifth Avenue, New York 16, N. Y.

There are Alexander Smith sales representatives and contractors in practically every city in the United States. A letter or postcard will bring you the names and addresses of those nearest you.
EAGLE RTU

does double duty

1. Being pure white lead, Eagle RTU has traditional beauty and durability.
2. It's factory-mixed for new efficiency, goes to jobs in original containers.
1. Eagle RTU’s fine brushing and hiding qualities make for easy application.
2. Its smoothly gleaming coat gives lasting distinction to your buildings.
1. Eagle RTU is favored by builders for its time-and-labor-saving convenience.
2. It’s preferred by homeowners for its whiter white that stays white longer.
1. Eagle RTU is pure white lead paint in a modern form.
2. It is backed by Eagle-Picher’s 104-year-old reputation.

EAGLE PURE WHITE LEAD

Paint

CINCINNATI OHIO

SINCE 1849

Member of the Lead Industries Association

THE EAGLE-PICHER COMPANY

ANNOUNCEMENTS

APPOINTMENTS

ROBERT MITCHELL, executive director of the Philadelphia City Planning Commission, has been appointed Research Professor in Urban Land Use and Housing at Columbia University. He will be responsible for a major portion of studies carried by Columbia's newly-formed Institute of Urban Research. Mr. Mitchell will continue working with the Philadelphia City Planning Commission as a consultant.

THE CALIFORNIA COUNCIL OF ARCHITECTS announces election of the following officers for the coming year: Andrew Hass, president; Adrian Wilson, vice president; and Malcolm Reynolds, secretary-treasurer.

JERROLD ROHR has been appointed chairman of the Architecture and Applied Arts Division of the special development program campaign of Illinois Institute of Technology. This group is collecting funds to finance the new campus buildings designed by Mies van der Rohe.

ANTON REFREGER will serve as visiting professor of art at Stanford University, Calif. for the summer term, June 28-August 28.

ROYAL STONE is now chief engineer for the eastern district of the H. K. Ferguson Engineering Co. with headquarters in New York City.

DIED

SIR CHARLES REILLY, outstanding British architect and proponent of modern town planning, at the age of 73. Sir Charles was Vice President of the Royal Institute of British Architects and an honorary corresponding member of the American Institute of Architects. A Memorial Scholarship Fund is being established in his name at the School of Architecture, Liverpool University, of which he was the head from 1904 to 1933.

NEW OFFICES

JOSEPH BAILEY A.I.A. is now in practice at 1307 Westwood Blvd., Los Angeles 24, Calif.

Rosario Candela announces that he has formed an architectural partnership with Paul Resnick in offices at 654 Madison Ave., New York 21, N. Y.

ANTHONY THORMIN and ARTHUR WOLFE, Architects, have reopened their offices at 672 S. Lafayette Park Place, Los Angeles 5, Calif.

RAYMOND GASS (successors to Harding & Steaver) announce the opening of an architectural office at 246 North St., Pittsfield, Mass.

LEO FISCHER A.I.A. will practice architecture and related design at 24 Commerce St., Newark 2, N. J.

AMERICAN COUNCIL OF ARCHITECTS (formerly Hudson & Gilmer) are practicing architecture and engineering at 203 Bartlett Bldg., Montgomery, Ala.

SHELDON RUTTER, Industrial Designer, has opened an office at 212 E. 49th St., New York 17, N. Y.

EDITH HERNANDEZ & Co., Interior Design firm, announces that it has opened offices at 39 E. 55th St., New York 15, N. Y.

FREDERICK YOST, Lighting Designer and Consultant, has opened an office for private practice at 2678 Cheshire Bridge Rd., Atlanta, Ga.

RALPH POLLACK A.I.A. and CHARLES POPE A.I.A. are associated in general architectural practice at 605 Market St., San Francisco, Calif. (Continued on page 88)
She's light . . . she's bright . . . she's beautiful. She has a warm, honey-colored complexion, and a beautiful figure . . . both stripe and some cross-fire.

Her name is Korina . . . and she's the newest beauty in the famous family of Weldwood Hardwood Plywoods.

But don't get us wrong. Korina is not expensive, and she's far from flamboyant. This new decorative beauty is right at home any place . . . in the best shops, the finest homes.

And Korina is now being shipped to lumber dealers all over the country in a good range of sizes and thicknesses.

When it comes to price, there's another pleasant surprise. Korina closely resembles Prima Vera. It finishes every bit as well . . . yet costs one-third less! In addition, Korina is cleaner, sounder and runs to wider flitches.

If you haven't yet seen Korina, make a date to meet this new beauty at your favorite lumber dealer. You'll find all the familiar features of Weldwood Plywood . . . so popular with clients and architects alike.

Mail the coupon for complete information.

MAKE A DATE TO MEET KORINA
It's easy. Just clip out and mail the coupon.
UNITED STATES PLYWOOD CORPORATION
55 West 44th St., New York 18, N. Y.

Gentlemen: Please send me complete specifications on your new Weldwood Hardwood Plywood . . . Korina.

Name __________________________
Company ________________________
Address _________________________
City ____________________________ State ___________

Plastics and Wood
Welded for Good

*Trade marks registered United States Patent Office. Weldwood is made in both interior and exterior types, the former bonded with extended urea resins and other approved bonding agents; the latter with phenol formaldehyde synthetic resin.
Use all 3 products—Walls, Ceilings, Floors—
for Johns-Manville Unit Construction . . .

With this new method of interior construction, you can meet the problem of ever-changing space needs.

You can provide for endless revisions of space-use—at low cost. You can keep expanding, converting, or subdividing rooms as often as conditions require . . . with little or no interruption to routine activities!

Moreover, the J-M Unit Construction system now makes the complete interior available under one specification, one manufacturer's responsibility.

Three Johns-Manville materials, described at right, are the basis of this revolutionary development. The asbestos Transite Walls are movable, 100% salvageable. The Acoustical Ceiling Units are demountable . . . can readily be taken down and relocated as desired. And the Asphalt Tile Floors consist of small units which permit easy extension of the floor to meet changing conditions.

Write for colorful brochure, giving full details on the remarkable flexibility of J-M Unit Construction.

Production of Johns-Manville Building Materials has now been greatly increased to meet unprecedented demands. So the chances are better than ever that you can get the materials you want when you want them.

Write Johns-Manville, Box 290, New York 16, N. Y.

... for Reception Lobbies and Stores
Flexible Interiors that look to the future!

1. TRANSITE WALLS—Movable!

Rooms when and where you want them... that's the magic of Johns-Manville Transite Walls—the attractive and sturdy asbestos walls that are movable. Now you'll never again need to send partition walls to the dump every time space changes are required!

With the least inconvenience—almost overnight—you can enlarge, decrease, or rearrange areas as often as your needs require. Transite movable panels are easy to handle, readily assembled, interchangeable, and can be used over and over again. Made of asbestos and cement, Transite Walls have all the qualities of solid and permanent construction. They provide rigid, double-faced partitions, and can also be used as the interior finish of outside walls.

To make sure your interiors will provide for change, write for booklet, "J-M Transite Movable Walls."

2. ACOUSTICAL CEILINGS—Quieter!

There's a Johns-Manville acoustical material to give you the best in sound control, no matter what the type of interior.

To assure you the maximum in noise-quelling, Johns-Manville not only provides the correct acoustical materials for each specific condition, but follows through by installing the materials properly with its own construction crews. In other words, you get "J-M materials installed by Johns-Manville" for best results. That's the all-inclusive service... the undivided responsibility Johns-Manville gives your projects.

For further details, send for brochure, "J-M Sound Control." Describes such J-M acoustical products as demountable Sanacoustic, Fibracoustic and Fibretone, Transite Acoustical Panels, and special materials for Broadcasting Studios.

3. ASPHALT TILE FLOORS—Colorful!

You spend no more to have quality floors like these—atractive and resilient... extra-long wearing... reinforced with indestructible asbestos!

That's the kind of flooring you get with Johns-Manville Asphalt Tile. It's easy on the eyes, easy on the feet, and easy on the budget, too.

Yes, you'll like everything about this modern flooring, including the unlimited range of color combinations—from striking patterns with strong contrasts to solid fields of marbled colors.

J-M Asphalt Tile does not originate dust... stays fresh and unmarred with practically no maintenance. Individual units permit easy repairs.

For areas exposed to oil or grease, use J-M Greaseproof Asphalt Tile. Send for full-color brochure, "Ideas for Decorative Floors."
Honest! We hope he's talking about one of the many architects and builders who insist on WEIR-MEYER heating equipment—that is, one of the men who are thinking of tomorrow by making sure today's home builder gets his money's worth. Dependable WEIR-MEYER equipment is honestly built, honestly priced. For all fuels.

A complete line of gravity furnaces and Air Conditioners, including new Hi-Boy models. Cooling and dehumidifying equipment may be added at time of installation or later.

Dependable economical Oil-Fired heating equipment for every installation from small homes to large industrial, commercial, and institutional applications.

New Weir Steel Furnace with Integral Heating Element (Pat. Pending) gives finer performance, greater cleanliness, easier installation. Coal-fired Winter Air Conditioners also available.

WEIR-MEYER means modern heat

THE MEYER FURNACE COMPANY
Weir-Meyer Furnaces & Air Conditioners for GAS, OIL, COAL
Offices: Peoria 2, Ill. • Factories: Peoria 2, Ill. and Peru, Ill.

ANNOUNCEMENTS

CHANGES OF ADDRESS

BOLTON, MARTIN & WHITE, Architects, have moved to 266 S. 17th St., Philadelphia 3, Pa.

VAN EVERA BAILEY A.I.A. is now located at 826 Brent Ave., South Pasadena, Calif.

ARCHIE PROFOPAPAS A.I.A. announces that his new address is 121 E. 23rd St., New York 10, N. Y.

SIGMUND BRAVERMAN and M. P. HALPERIN, Architects, have become associated in practice at the Euclid Seventy-First Bldg., Cleveland, Ohio.

MORGAN STEDMAN, FUBBER LIBBY and DOROTHY GRAY, Registered Architects, are now at J. C. Penney Bldg., 310 University Ave., Palo Alto, Calif.

JOHN HANCOCK CALLENDER, Architect, has moved to 299 Madison Ave., New York 17, N. Y.

J. ARNOLD MEYER, Industrial Designer, is now located at 36 E. First St., Dayton 2, Ohio.

GREGOR READ CO., INC. announces that its office of industrial design has been moved to Wilton, Conn.

ROBERT GOLDBERG, Industrial Designer, has moved to 22 E. 17th St., New York 3, N. Y.

HORSEY STRUCTURES INC. announces that its northwest offices have been moved to 6360 N. W. Simpson St., Portland, Ore.

CORRECTION

The cost of the Lescaze-Weidlinger prefab house (story on p. 11, March FORUM) should have been quoted as "$8,000 including land."
Over 40,000 square feet of Amtico Rubber Flooring were used in Bullock’s outstanding new store at Pasadena. With Amtico’s advantages, no better selection could have been made.

The smart colors and patterns are a perfect foundation for the striking decorative theme, contributing much to the eye-appeal of this beautiful, modern department store.

The distinguished appearance is an integral part of the floor, for the design is the material itself, Amtico Rubber that goes all the way through. Years and years of wear are the heritage of this premium floor, and all with a minimum of maintenance. Even cigarette stains can cause no permanent damage to easy-to-clean Amtico Rubber Floors.

Here too will be quiet underfoot, for the resilient surface hushes and absorbs surface noise.

Earn the goodwill of your clients by specifying Amtico Rubber—"the floor that defies wear".
This two-page advertisement appears in the May 22nd issue of the Saturday Evening Post. It is the second of a series aimed at better housing at lower costs, and an expansion of the creative services of architects.

For a New Light on New Houses...

Soon the story will begin—the story of the search by the Revere Quality House Institute for ways and means to bring to you, the builders and buyers of American homes, the assurance of quality and value. This very minute, construction is under way on several houses in various parts of the country, under the eyes and with the collaboration of the Institute. Next month in these pages you will be able to read the facts about the first completed house.

Your guide to better living everywhere

During this year eight houses are to be built to Institute standards by eight architect-builder teams in eight different parts of the country. See the map opposite. Thus eight different territorial housing conditions will be studied. What is learned in one section will not only be applied to subsequent homes in the same general area, but will also be utilized wherever practical. Thereby Institute teams everywhere will be able to benefit from the ideas developed anywhere.

What is the purpose of the Revere Quality House Institute? It seeks to find out how much value, in durability, comfort, convenience, beauty and all that makes a house a home, can be given per dollar in a moderate-priced house. It not only will make it possible for builders to give that maximum value, but will enable you, the buyer, to identify a given house as a Quality House, built to the highest principles and standards.

The Institute, though fostered by Revere, is not and will not be controlled by Revere. The Architectural Forum is co-sponsor, and this well-regarded magazine, in its desire to assist the progress of the building industry, assumes the responsibility of organization. Eventually the Institute should be self-supporting, creator and guardian of housing standards to which any architect and builder can adhere, in which any home buyer can have complete confidence. All this for the benefit of our under-housed nation.

This is the SIGN

Every house built in collaboration with the Institute according to its standards and principles will show this seal—your assurance that the house bearing it is moderate in price but high in value. Institute approved houses incorporate:

1. Good site planning
2. Efficient use of space
3. Plan for health
4. Plan for convenience
5. Plan for livability
6. Plan for privacy
7. Plan for outdoor living
8. Planned orientation
9. Plan for the future
10. Use of quality materials
11. Employment of quality workmanship
12. Installation of quality equipment
Why Revere sponsors the Institute

The professional services of an architect are essential to the creation of fine houses. But heretofore, in most cases, the complete services of an architect have not been made available to the builder and buyer of moderate-priced houses. We believe that through the Revere Quality House Institute this problem can be solved, and that it will be found commercially feasible to provide for the average house the professional talents that are required to assure the highest standards of design, materials and workmanship.

It is with confidence that specifications for value plus lifetime economy must include non-rusting metals that Revere sponsors the Institute. Such sponsorship is not merely in Revere's own interest, and that of the entire copper and brass industry, but for the good of the general public. Revere materials for the building industry include sheet copper for flashing, roofing, gutters, downspouts, cornices and similar applications; copper water tube for plumbing and heating lines, Red Brass pipe for water lines; copper for termite shields; Revere Home Flashing; copper and Herculoy for hot water storage tanks and heaters; brass and bronze for hardware, plumbing fixtures, etc. These are quality materials, which resist deterioration and provide long-lasting protection for the other quality materials specified for Quality Homes.
It's because Better Homes & Gardens is 100% a service magazine—cover to cover, ads and all—that we attract only the people who are interested in better homes. The last Dodge Survey report showed that 7 out of 10 of all people who build new homes read BH&G regularly! What a perfect spot to influence over 3,000,000 families whose incomes are among the highest for all big magazines! See these in the May issue:

- Home For An Active Family (a house that functions with real efficiency)
- articles on a house on the market with privacy,
- and on a home in which every room opens directly outdoors.

It's because Better Homes & Gardens is 100% a service magazine—cover to cover, ads and all—that we attract only the people who are interested in better homes.
We are now well into the greatest store-building period in our history. The rush has two simple commercial compulsions: a great flood of consumer goods to a rich, hungry market; and the need to make up for the wartime building blackout. Both reasons are adequate in explaining the estimated $618 million dollars which was hammered into store construction last year. But there is still another reason, which is becoming more evident as we advance in 1948. That reason is the new store.

This is a building that attracts customers better than any other store, makes them more comfortable inside, handles them most efficiently with least waste of time and money, shows them the merchandise better—and sells them more. Its crisp, attractive front is becoming familiar in every town in America. In this issue are 40 such stores.

Merchants have proved to themselves and to architects that this new store will out-sell its predecessors. As in the general advance of building, the impetus for change has here come primarily from the public, as sensed by merchants—it has not been sold to merchants by architects. The recognizable techniques of modern architecture are visible in these stores, but not as a result of a recognition of the esthetic merits of modern architecture by business men. The architecture is the result of a demand for an environment which only the modern techniques can furnish.

This intensified concern for the perfection of a selling space may seem strange these days, when there is profit in almost all merchandising. Just now, it is true, nearly any store can sell its stock. But we are entering a retailing period which will see the return of stern competition, and the first preparatory moves of the smart merchants have been to get new stores, by remodeling or building. A single new store on Main Street—a structure that includes the new selling techniques in display, lighting, planning, air conditioning, fixtures, and furniture—forces the hand of every other merchant on that street. Everyone has to follow suit, or risk a declining business. Construction is no mere luxury or the by-product of high profits. New stores become a commercial necessity. As the late Albert Kahn observed of the postwar industrial field, no business man can afford to stay in a plant when a better plant has been built for the same purpose by a competitor. A new commercial building suddenly antiquates all others.

The economic life span of store fronts and store buildings is fast diminishing, faster even than the life of other commercial buildings. Sociologists may regard this fact with high alarm, but the store designers are realizing it with great delight. The package, it seems, is becoming as important as the goods inside. A time is in sight when merchants will frankly include the “plant upkeep” percentage of their annual income in the advertising budget. Eight hundred and fifty million dollars will go into store construction this year with a greater peak probably to follow in 1949. A survey of men's clothing
stores is an example of the amount of work that will have to be done; 38 per cent of the retailers expect to put new fronts on their stores in the next few years. Fifty per cent expect to install new lighting systems. Air-conditioning, sound-proofing, music installations, display equipment, floor coverings—a high percentage plan all of these. Chain stores alone will spend $450 million to super their markets.

STORE designing in many respects is no more architecture than is the designing of automobile bodies—the appropriate word used often in Detroit is styling. But a technical basis does exist in both fields, no matter to what degree commercial demands may corrupt the finished automobile or store. In the automobile, it’s the engine and chassis; in the store, it’s the plan and lighting. From that point, from the technically perfect skeleton, the fight is on—to sell the people.

But a store, as such, really represents something relatively new in building, and contained in the new store in America is a change in the point of origin of many building advances. Until a few years ago store buildings were designed essentially as imitations of something else, in a secondary aping of whatever eclectic architectural style happened to be current. Regard the good gray massings of Finchley Tudor on shopping avenues, inspired by that particular historical trend. The Mediterranean period has left scores of tiled mementoes on Main Street. A craze for English country houses brought Georgian bay windows for display fronts, with myriads of small panes of glass. Store style always was set on another level of building, with the merchants following the manor houses. But in the great shaking down of new economic situations and new architecture, the store has stepped out ahead.

Today, the store is the place for experimentation and development of new environmental control and materials. All the many improvements which are found later in residential and institutional buildings are proved first in the retailing section of town. People are first conditioned while shopping to comforts which they later demand in their homes, their hotels, their offices, and their banks. Only merchants have the money available to support this development—and their whip is commerce.

Today’s stores, leading in setting environment standards, closely follow the great social changes of the day. Everyone is aware of the change in character of today’s merchandising geography. Some call it decentralization; some call it expansion. By either name it means that stores are moving away from “downtown,” edging out along the radius to our cities’ extended outskirts, which are so boominly healthy by courtesy of the automobile. “Downtown” may not be finished, but it is doing no better than holding its own with the outlying colonies of stores in lower rent areas of easier accessibility with better parking facilities. Here is a real battle of the merchandisers, and a real challenge to architects and land planners—the saving of the sick business core.

Few of the ideas in this set of 40 new stores are brand new, although most of them are quite recent. More notable in this issue than discovery of design wrinkles like egg crate lighting fixtures is the striving of the designers to make stores of different character to sell goods of the many different types. Atmosphere and personality are painful words to architects, but the architects obviously have been convinced that these words are of great importance in store planning. A bland modern store, it seems, is not a universal sell-all for the whole content of retail merchandise. A point that is no longer contested is the peculiar efficiency that certain environments have in selling certain types of merchandise. Contemporary designers have realized that much of the time it is even sentiment that does the selling—though lust might be a better word for costly women’s shoe stores. Even there, however, the buyers of high priced ladies shoes do not want a real bordello—what they seem to want is an abstract version of a bordello, with a simplified treatment in contemporary materials. In contrast, for example, to the best atmosphere for women’s shoe stores is that for supermarkets. Bright bareness seems to be sought there, in a supermarket the more obvious the designer makes the scientific environmental control which surrounds the customer, the better that building moves merchandise. The stores in this issue as a group reveal their designers’ awareness and eagerness in defining the merchandise to be sold.

Another interesting tendency is the small beginning of restraint from using simultaneously all our recently developed trademarks of a modern store. Some designers even are doing such thoughtful things as looking across the street behind a light meter to see what will be the reflectance factors from the opposing facade, before they put glass fronts on stores. Details are being further refined. For an example, see on page 113 a moving stairway which has been made into a fine dramatic accent in the center of a department store by almost complete avoidance of the usual ponderous bulkheading. Although it is true that relatively few of the countless stores being built or rebuilt today contain very much of that rare quality, esthetic character (two painfully embarrassing words to most store men), most of them do succeed in meeting the clients’ first demand—they are good sellers. The next move for architects is to increase the ingredient of architecture in the stores which this year’s $850 million will build. A successful sales designing job may be accomplished using the vocabulary burlesqued on the next two pages; even some of the 40 top-drawer examples in this issue rest heavily on this set of moldering modern musts. But these are hardly the ends of architecture even in store work.
SOMEWHERE IN CLAUSTROPHOBIA

Architect Victor Gruen points out a few booby traps along the glazed front

Three easy ways to eliminate the customer

THE BOTTLENECK
The shopper instinctively senses danger.
To maintain a flow of traffic, sales clerks
must be expert practitioners of jujitsu.

And there shall be a sign

THE Labyrinth
Only a trained explorer can find the door.
In Los Angeles a store owner was perturbed
to discover on Monday morning the body
of a late Saturday shopper.

THE TUNNEL
A solution often chosen by the owner
of a 15 ft. shop who wants 60 ft. of
show windows. Successful only when catering
to a clientele of undernourished midgets.

THE CHASTITY
The pure, unbroken, clean-cut, sweeping
lines of the modern facade are unsullied
by anything larger than 4 in. lettering.
This scheme is more popular
with architects than shop owners.

THE BIG AUTOGRAPH
This scheme is more popular with
shop owners than architects.
At one-eighth of a mile
the entire sign can be easily read.

THE LITERARY FRONT
Except for a chapter or two by John Gunther,
this sign has everything Inside the U. S. A.
Not yet a best seller.
Is the open front getting out of hand?

You've got to draw the line somewhere.

Is nothing sacred?

But the human element will creep in

The architect can dream...

until after the opening.

For quick relief from creative pains...

Take five long vertical poles...

three free-shaped panels...

seven vertical fins...

a few hundred pounds of plate glass.

Stir well with a T-square...

add artificial coloring (chartreuse is recommended)

and serve under strong fluorescent lights.
Open front boosts trade in shoes

LOCATION: WASHINGTON, D. C.
WILLIAM N. DENTON, JR. and
KETCHUM, GINA & SHARP, Associated Architects

The open front is carried to its logical conclusion in this very effective new suburban shop. For here the merchandise is displayed in fragile-looking glass boxes right out on the building line, with the glass front recessed 18 ft. Carrying a complete line of men's, women's and children's shoes, the shop is open every evening until 10 p.m. This meant that visibility from the street, together with good lighting and color, were of decisive importance. The architects' solution is brisk and to the point, and achieved with economy and grace. A lemon yellow ceiling and a floodlit white brick wall carry back to a rear wall of redwood. The floor is quarry tile, fittings are natural wood and aluminum. Wood and mirror screen (below) conceals stock.

Designed for a line of expensive, high style footwear, this new shop meets all the current requirements for successful luxury merchandising. Of its many admirable features—a street front of almost spartan simplicity, log-burning fireplace, concealed stock rooms, well-organized furnishings and display—the one which probably contributes most to the success of this store is the fern-filled glass-roofed patio at the rear. In addition to acting as an attractive lobby to the parking lot at the rear, this patio largely overcomes the limitations inherent in narrow, deep and high-ceilinged store.

Shoe chain builds first “family” store

LOCATION: HEMPSTEAD, N. Y.
LESTER C. TICHY, Architect
SCHELLING-BUSCH, Inc., General Contractors

This shop is, as the architect puts it, “a guinea pig.” A remodeling job for a national chain, it is McAn’s first venture into the “family-type” store—i.e., shoes for men, women and children under one roof. (Hitherto McAn’s have always had separate stores for men and boys, women and girls; this one replaces their former men’s store next door.) The project is thus a prototype—and a successful one, by all accounts. The two-floor plan cannily provides the glamour needed for women’s shoes and bags, yet permits the men to reach the basement level without embarrassment. As in all mass-selling operations, the stock is largely exposed: the shoeboxes, however, will be restyled by the architect.

FINISHES AND EQUIPMENT:
- FLOOR COVERINGS—tile, Tile-Tex Co., Inc., linoleum, Armstrong Cork Co., or carpet.
- WALL COVERINGS—Checkwood, U. S. Plywood Corp.
- FURNISHINGS: Chairs—Thonet Bros., Inc.
- DOORS (exterior)—Herculite, Pittsburgh Plate Glass Co.
- PAINTS—Benjamin Moore & Co.
- ELECTRICAL FIXTURES—Curtis Lighting Co.
- HEATING—steam, York Corp.
- Regulators—Minneapolis-Honeywell Regulator Co.

ENAMELED ALUMINUM SHEATHING GIVES BILLBOARD EFFECT

ALL FIXTURES ARE ARCHITECT-DESIGNED, INCLUDING CARTONS

STAIR PERMITS BASHFUL MEN TO BY-PASS LADIES ON WAY TO MEN’S WEAR IN BASEMENT
A suburban shop for higher-priced women's shoes and accessories

LOCATION: WHITE PLAINS, N. Y.
CARSON & LUNDIN, Architects
WILLIAM J. GOBLE, INC., General Contractors

This new shop for I. Miller's national chain occupies a spacious corner in a well-to-do New York suburb; but unlike the majority of shops in this issue, it does not employ an "open" facade. Except for a big corner window, its white painted, textured brick walls are broken only by small, yellow-trimmed display windows and a yellow and gray awning. Inside, the shop follows a merchandising policy of segregated selling areas for three lines (accessories and two prices of shoes); closed stockrooms; and a minimum of fuss and confusion in the furnishings and fixtures. Blind entrances to stockrooms achieved by curving walls eliminate the need for doors, curtains, etc.

Two Shops converted into one

LOCATION: PHILADELPHIA, PA.
GEORGE W. NEFF, Architect
JOHN A. ROBBINS CO., General Contractor

The complicated reconstruction of two narrow buildings is effectively concealed behind the bland new glass-and-marble front of this shoe shop for a national chain. High costs forced the architect to compress the four departments (originally planned for two floors) onto one level. He has managed this compactly, giving each department its own sales area and stock room, while maintaining a surprisingly spacious and uncluttered atmosphere in the shop as a whole.

Steiman Photo
A store for the motorized carriage trade, Bullock’s-Pasadena employs

LOCATION: PASADENA, CALIF.
WURDEMAN & BECKET, Architects & Interior Designers
RAYMOND C. DEXTER, Interior Designer
P. J. WALKER CO., General Contractor
STANDARD CABINET WORKS, INC., Fixtures

Julius Shulman

AIR VIEW OF BULLOCK'S PASADENA. PARKING SPACE IS ESSENTIAL TO THIS SUBURBAN STORE CATERING TO THE CARRIAGE TRADE.
The past year may have produced a few larger department stores than Bullock's new showpiece in Pasadena but none more lavish or unorthodox. This new plant is not merely a big branch of a big metropolitan store reaching out to the suburbs to overtake its motorized customers. It is also a merchandising machine whose novel design springs straight from a close analysis of Bullock's merchandising operations. For here—as in its other stores—Bullock's works on a “unitization plan,” i.e., each major group of merchandise is bought, stored, sold and delivered as a separate operation. The merchandise in each is related more by function than by type. (For example, appropriate types of women's gloves will appear in several shops—evening, street, sports wear—rather than in one department labelled “gloves.”) Because of this, the new store shown here is actually not a department store but a tightly knit collection of about 60 individual shops. Aside from the well-known potency of “related merchandising display” as a way of moving impulse goods, it has the further merit of making shopping more pleasant by reducing the customer's expenditure of time and energy.

For the architect, such a merchandising policy raises a host of new considerations. In the case of Bullock's-Pasadena, Wurdeman & Becket spent a year taking the whole operation apart, analyzing its components and then re-assembling it into the most efficient possible machine. Thus each shop required its own sales area, stockroom, wrapping counter as well as the usual buyer's office. These shops had, in turn, to be coherently grouped by type of merchandise (home furnishings together; infants, children and toys together, etc.). Factors like these dictated the building's large horizontal floor areas and flexible partitioning. They also account for the unusually high amount of service area and the almost complete lack of great axial aisles, lined with counters and jammed with traffic.

Other factors, however, account for some of the building's more startling departures from the norm. Inside and out, it looks more like a club than a store—and a rather expensive club, at that. This too is a deliberate reflection of Bullock's bid for the carriage trade. The store makes a wide use of daylight, when many others are cutting it out entirely. It places a good portion of its stock out where it can be both seen and handled, just when many competitors are putting theirs out of sight. And it is so committed to motorized customers that it is six blocks from the nearest shopping district, devotes six of its eight acres to parking, has no street-side show windows and only one pedestrian entrance.
Huge floors permit horizontal flexibility

TOP LEVEL. The department store restaurant, already a popular feature in the region, appears here as a lush penthouse cafe and terrace called the Coral Room. Used as a magnet to attract people first to the store and then to the top floor, this cafe boasts a good cuisine, a fine view of the mountains and a daily fashion show. The remainder of this level is devoted to an interlocking series of shops for infants, children, teen age girls and brides. A large old-fashioned drygoods and notions department occupies the west wall.

MIDDLE LEVEL, served by the upper (north) motor court, corresponds to the "main floor" of conventional stores. From the north lobby, one of the stores few axial aisles leads to the elevators at the center. Immediately to the left of this lobby, where it can be reached without running the gauntlet of femininity, is a series of shops for men and young men. To emphasize its masculinity, this section makes a wide use of natural woods, stone masonry and tile floors.

LOWER LEVEL. Well over half of this floor is given over to various services. All receipts and deliveries are handled here: incoming stock is routed directly to various stockrooms; outgoing packages, brought by chutes and conveyors from various wrapping stations, are routed to "will call" desks in each of the motor court lobbies (tests showed packages always beat customers to the exits). Only sales areas on this level are a series of some 23 home furnishing shops (see facing page) which are organized around the main traffic line to elevators.
WOMEN’S SPORTSWEAR, seen from elevator lobby (right), is hub of a series of related shops.

SPORTS MILLINERY (below) is a handsome, club-like room. Glass doors are store’s only pedestrian entrance.

ACTIVE SPORTSWEAR (below) has glass wall overlooking street instead of conventional show windows.

A SERIES OF HOME FURNISHING SHOPS—about 23 in all—demonstrate Bullock’s technique of selling related merchandise. In addition to accessories (left) and garden furniture (right), there are shops for boudoir, sleep, bath, closets, garden, kitchen, etc. Besides these “set up” rooms, all walk-in stock rooms may be used for display.


KITCHEN EQUIPMENT—Dohrman Hotel Supply Co.


Incinerator—Morse-Boulger Destructor Co.
Pigeon-proof facade was achieved by elimination of all projections and reveals. Fixed windows are detailed to prevent staining of marble. Electric rail behind parapet will ultimately carry window washing cab around facades.

7. Luxurious women’s wear store is hung on steel

Timothy I. Pflueger (deceased), Architect  
Milton Pflueger, Associate  
Neel Parker, Decorator  
Dinwiddie Construction Co., General Contractor

A building is being stripped to the bone in the series of photos at the left: below is the same building as it appears today—the new 10-story home of L. Magnin in San Francisco. By its cool marbeline formality, the reconstructed 40-year-old building now dominates not only Union Square (under which the same architects two years ago built a 1,700 car municipal garage) but also the city’s best retail district. And although the facade is unprecedentedly severe for the Magnin stores, the interiors reveal the baroque elegance which is a calculated part of a successful merchandising policy for expensive women’s wear. Only the street floor is open: the remaining six sales floors are developed into salons with a lavish use of fine marbles, woods and fabrics. Here—as in most luxury stores—little merchandise is on display, the greater part being in stockrooms. But Magnin’s attach much importance to the fitting rooms—giving them daylight, airconditioning, handsome decor—because much of the actual selling is done here rather than on the main sales floors.

* Except for the steel skeleton, the structure is actually completely new.

THIRD FLOOR

THIRD FLOOR is typical of Magnin's "salon" merchandising: French furniture and decor; very little stock on display at one time; comfortable fitting rooms—many with outside light. Employees have exclusive use of penthouse with its lunchroom, lounges, sundeck, hospital.

MAIN FLOOR is organized along conventional department store lines, though fittings and decor are unusually elaborate. Below it is basement containing employee lockers and auditorium, fur vaults, repair shops, etc. Sub-basement has receiving and shipping, heating plant.
A department store Mecca for motorists, built to serve a widespread population

Los Angeles reputedly has more automobiles per citizen than any other city in the country. With that in mind, as well as the fact that this new branch of the great May Co. merchandising colossus is planned to serve an area whose 750,000 population is anything but compactly situated, the architects designed a building whose main approach is from the parking lot. Since it is estimated that at least half the customers will be motoring to market, department layouts and location of the moving stairways also are planned with what would usually be the “back” of the store as the primary approach. Site for the big store is the oblique-angled apex of a series of high-speed highways from the “beach cities” to downtown Los Angeles. Included in the great emporium are departments from boy scout headquarters through bridal bureau and maternity shop back to a spacious children’s playroom, all carefully planned and detailed in the May Co. open type merchandising manner. A mezzanine holds offices and other non-selling areas, the only windowed sections.


EXTERIOR OF STORE IS A GREAT SIMPLE MASS OF REINFORCED CONCRETE OVER A GLASSED FIRST FLOOR AND STRIP-WINDOWED MEZZANINE
PLANNING STRESSES "OPEN TYPE" MERCHANDISING AS OPPOSED TO SELLING IN PARTITIONED SALONS
An ambitious remodeling of the 11-story steel-framed home of a big women's wear store, The Fashion, Inc., this project amounts to an almost complete reconstruction. In addition to a complete new steel facade and a 10 ft. addition at the rear, the building got new elevators, a new plumbing and electrical system, air conditioning and—of course—an entire reconstruction of the interiors. Moreover, the whole operation was carried out without disturbing the tenants on the two top office floors and without closing down the store itself. Now complete except for re-doing the main floor, the building provides a vertical system of six sales floors, two floors for stock (4th and 8th), one floor for offices and employees (9th) and ample room for expansion into the two top floors if needed.

The owners had very precise data on their needs—volume of business in various departments, stock and fitting room requirements, etc.—and a definite merchandising policy which involved "styling up" the entire store by the elimination of cheaper merchandise. They also wanted each section to be a complete unit, competing with the specialty shops by offering the shopper a more complete and more accessible assortment in each department. In this connection, they added an entire new children's floor, which included layettes, 1-3 year olds, 3-6, 7-12, teen-agers, and juniors. Each section carries its own accessories.


FLOWER-BANKED BALCONIES ON ALTE R NATE FLOORS GIVE SALONS PLEASANT OUTLOOK, ADD INTEREST TO FACADE DAY AND NIGHT
VENTH FLOOR is devoted to two closely-related departments—beauty parlor and lingerie. Bank of express elevators lead to store offices and rental space on 9th, 10th, and 11th floors.

LINGERIE, WITH ELEVATORS BEYOND: NOTE USE OF COVES FOR GENERAL ILLUMINATION

FIFTH FLOOR shows typical balance between sales and service areas. Store is gradually eliminating lower priced lines, what remains is concentrated on this floor as "sports wear."

SPORTSWEAR HAS FEW COUNTERS AND RECESSES ALL HANGING CASES IN WALL IN FASHION SALON, CONVENTIONAL STORE FIXTURES DISAPPEAR COMPLETELY

THIRD FLOOR, carrying store's most expensive clothes, has most elaborate decor. Little stock displayed, fixtures are entirely eliminated, being replaced with French furniture, deep rugs and antiqued mirrors.
A smart resort store, planned for changes in business and weather

ELEANOR LE MAIRE, Designer
ABBOTT, MERKT & CO., Engineers
E. L. ROBERTSON, Associate Architect
Caldwell Scott Construction Co., General Contractor
ZERMANN ACME-GRANADA SHOPS, INC., Fixtures

When this smart Miami company decided to reproduce itself in Fort Lauderdale, the project was not approached as a branch store. Billied as a "twin, not a twig," the new buildings are a complete department store which carries over high style merchandising practices down the line from men and women's fashions to home furnishings, all presented behind the "Burdine blue" glazed tile facade with the deft touch that spells elegance without visible effort. In the fashion-conscious community of Fort Lauderdale—made up considerably in the season by sunseeking Northerners who are accustomed to very elevated general stores—special attention had to be given to providing a layout permitting maximum opportunity for seasonal expansion and contraction of service and staff. When the winter people are not around, there's a good chance that seasonal storms will be, so a hinged steel shutter was built into the heavy marquee on the front of the building, the shutters to be lowered quickly and bolted to the sidewalk when storm warnings are hoisted. To lower costs, color was used brightly and effectively throughout the job in place of more expensive architectural devices.

From outside, the building appears one complete entity, but it is designed as two separate structures. Selling space in the first building includes approximately 100,000 sq. ft. Separated on the street level by the driveway to the parking space, but joined on the second and third floor levels to the sales building, is a building devoted entirely to services. The buildings now comprise three stories, on reinforced pile cap foundations with no basement, but the steel frame has been designed for three additional stories when needed. The future fourth floor is now used as the roof for the present structure.
Rubino red marble columns and planting decorate main entrance.

Dramatic moving stairway is detailed simply; below, first floor.
WIDE ANGLE LENS DOWNLIGHTS ARE USED IN ALL CEILINGS; ABOVE, LADIES' SHOES CUSTOMERS LOUNGE.

SECOND FLOOR WOMEN'S DEPARTMENT, BELOW, IS TYPICAL OF SPACIOUS PLANNING.

11. A small, neat, two-clerk dress shop

LOCATION: NEWARK, N.J.
LEO L. FISCHER, Architect
MICHAEL COHEN, General Contractor

This shop makes a determined attempt to attract the bright dress trade. Very small—it was designed to be operated by two people—nevertheless preserves a surprising amount of storage space through neat interior arrangement. The prominent trade name, set on the facade over the door, is designed to be silhouetted against the high level of brightness of the ceiling inside, which is lit by a line of inverted spotlights. A band of material bearing a good print arcs across the store for a strong decorator's line inside.

12. A calm background for sales appeal to some basic emotions

LOCATION: PORTLAND, ORE. WICK, HILGERS & SCOTT, Architects

The maternal and paternal instincts come in for a lot of attention in this store, whose stock provides all the necessary appurtenances for planned babyhood. An architect out to sell his client's dolls and layettes can hardly be expected to do it entirely with the familiar sales vocabulary of modern store fronts, whose cool charm might attract few emotional customers. Here the designer used a continuous wall of fanciful nursery paintings for diversion and specialized sides appeal.
This new shop houses a branch of a large specialty chain handling women’s casual clothes. Located in a small Massachusetts college town, its clientele is probably somewhat more specialized than would be the case in a normal community. But the basic selling principle of the chain remains unchanged: as much stock as possible on the sales floor, in open sight, readily accessible and easily supervised. This principle is neatly expressed architecturally: the front is open, there are no conventional show-windows, the entire shop is well-lighted and the lights remain on each night until 11 p.m. The semi-circular layout of the lighted hanging cases has proved so successful that the architect has used it in several other stores for the same chain.

The oddly-shaped lot on which this new store is located is one of the most desirable in downtown Camden. Located next to railroad and bus lines terminals, the store stands athwart the path of most commuters and shoppers headed for nearby Philadelphia. And the main task of the new store was to offer effective competition to bigger shops in the city, to stop commuters in their tracks. Hence the tall (27 ft.) lobby and big signs. The lot was very deep and narrow—170 ft. x 45 ft.—and the serpentine layout of the fixtures has been calculated to minimize the tube effect and draw the shopper toward the rear. For increased revenue, a small shop for rent occupies 10 ft. of the frontage: space above it is used by the owner. Both shops are completely air conditioned.
This chain of men’s stores believes in quiet. Their locations are generally just a little off the most beaten track in a pretty well tracked neighborhood of office buildings. And when they move into a new location the store interior which their designers provide is intended to extend the calm atmosphere for softspoken selling. A set of Army crests brought from England by the president of the chain were used for decoration to match two company crests on the marble facade flanking the entrance. Inside, the spirit of the crests is supplemented by a section at the rear of the shop devoted to formal clothing, with the archaic paneling so dear to tailors. Otherwise, in lighting and materials, the shop has a quiet contemporary cast.
This men's shop on Wilshire Boulevard is smaller and bolder

LOCATION: BEVERLY HILLS, CALIF.
PAUL LASZLO, Designer

This West Coast men's shop is a good example of compact, yet uncrowded, planning. Fitted into a space of 20 x 80 ft., facilities include not only a good deal of rack display for men's suits, but five dressing rooms (an unusual number for so small a shop) and a custom tailoring department. The glass front is set at an angle of 26 degrees, for display grace, and the angle is repeated inside by the jutting wall cases. Wedge shapes thus created house the dressing rooms, whose doors are full length viewing mirrors. The front window is amber colored plate glass, cutting 85 per cent of the sun's activic rays and minimizing fading of merchandise. Predominating colors are good shades of the men's shop standbys, gray, green, red, and tan.

A Texas branch for a custom tailor

LOCATION: DALLAS, TEXAS
EUGENE BACK, Architect
HENGER CONSTRUCTION CO., General Contractors

The discreet needs of a gentleman's tailoring establishment are familiar to this designer. He has planned shops in a number of cities for the same firm, who have removed a good deal of the murk from the fitting rooms, shifted them downstairs from the familiar second floor location, and done very well. This Texas store retains much of the identity of the other branches, together with the same general planning ideas. A glass front set in 3 ft. from the sidewalk line extends a quiet invitation to look over the shop. Inside to the right are slides draped with seasonal fabric, a quick presentation of the potential selection for a new suit. On the other side are cases for storing woolen Shetlands. Fitting rooms are at the back.

FACADE FOLLOWS PATTERN OF OTHER BRANCHES

MATERIAL FOR SUIT IS PICKED FROM SLIDING FRAMES ON WALL

VIEW TOWARD FRONT OF SHOP WITH LIGHT CURTAIN DRAWN
A popular priced clothing store, well exemplified here, has an entirely different merchandising approach from the tailor shop across the page. The idea here is to confront the customer with thousands of suits at a glance. Mass merchandising eliminates stock rooms and puts everything on display. This idea obviously dictated most aspects of the design, with a mezzanine introduced because it permits four tiers of suits instead of two—and a glass rail on the mezzanine to keep as many of those suits in sight from the main floor as is possible; alcoves increase the room perimeter, again permitting more suits to be hung. What the architect had to do in effect was design for interest. Discussing the show window design, he points out: "The front was made as open as possible, but we couldn't have an entirely open front. You simply can't display against open space. It's all right if you have one gown or three pairs of shoes to show, but you can't display 75 to 100 suits against the confusion of activity within the store... you must get a background to hold the stuff together."
Small town store for low and medium priced women's ready-to-wear

LOCATION: BAYONNE, N. J.
REISNER & URBAN, Architects
WINOGRAD & WATERMAN, General Contractors

Designed for women's ready-to-wear in the highly competitive low and medium price brackets, this new shop is one of three recently completed by the architects for the same firm. Size and arrangement of sales areas is closely geared to owner's tested merchandising policy, each section being separated by wall displays. Turnover is rapid: thus stock is kept on main floor although store has a full basement. Elevated "stage" at center of rear wall (right) is brilliantly lit at night as part of window display.


Good shopping facilities for the ladies of a suburban town

LOCATION: NEW ROCHELLE, N. Y.
JOSE FERNANDEZ, Architect
CHARLES JOHNSON CONSTRUCTION, General Contractors

The architect here started with an old building which had housed two small shops, and made it into a good-sized store for women. There are three effective merchandising levels now, including the mezzanine, with another floor available for easy expansion upward. A frame of gray structural glass is placed around the front of the first two floors, which are glazed for entire visibility from the street. An area called a vestibule—directly behind the window display stage and before the main selling area, has a ceiling of 3 in. natural birch slats. This follows the floor line to the outside where it curves up to form an illuminated plant box, and backs the letters of the store name. Two shades of rose, pale and deep, are used throughout the store to flatter the customers and merchandise.

Shoes are sold in polished surroundings

LOCATION: SAN FRANCISCO, CALIF.
GRUEN & KRUMMECK ASSOCIATES, Designers
L. H. NISHIKIAN & SON, Structural Engineers
H. D. COWAN & CO., INC., General Contractor

The highly competitive location of this shoe store on San Francisco's Market Street called for careful consideration of exterior treatment. The careful consideration obviously resulted in a decision to present a front design which would have maximum impact on the wandering shopper, with marble, mirrors, glass, bronze mullions and aluminum bars, and cement plaster canopies shooting rather meaninglessly through the glass front—all the striking techniques of power merchandising. But once the designer has drawn the customer inside, he calms him with a bland, simple background of large clear surfaces, and some nicely done details in a polished atmosphere of luxury.


VIEW OF FIRST FLOOR REAR; NOTE NICELY DESIGNED LIGHTING FIXTURE

GENERAL VIEW FROM UNDER MEZZANINE TOWARD GLASS WALL OF STORE FRONT
SECOND STORY FRONT IS OPENED IN ARC BEHIND STORE'S TALL GLASS FACADE

SECOND FLOOR ALSO HAS LUXURIOUS SELLING FACILITIES

ALCONY CANOPY HOLDS PLANTS
This prodigious women’s shoe store (41,000 sq. ft. with a stock of 170,000 pairs) represents a new idea in Macy’s great merchandise hive. It is a self-contained unit in the immense store, encompassing not only all the different price ranges, age, and style approaches in women’s shoes, but also the buyers’ offices, the receiving and marking departments, and both the reserve and forward stock. Previously shoes had gone through the store’s regular merchandising channels, but this effort towards economy in handling merchandise has been efficient enough as a proving ground for Macy’s over-all modernization program to warrant possible application in other sections. The five departments are broken only by seating and display arrangements and color changes, with no structural barriers. Not only does this make all segments easily visible from any angle, but it also will make future adjustments in size of the various sections inexpensive. Lighting—combined incandescent and fluorescent—produces 20 footcandles at the customer level.

LOCATION: NEW YORK CITY
RICHARD BELCHER, Architect
JOSEPH GARRY CO., General Contractor

If there is another field of commercial design comparable to the design of perfume bottles in the creation of heady atmosphere, it is the design of a salon for the exercise of the exotic science of selling rare and expensive women's footwear. Here we have a refined example of the baroque approach often favored, minus sculptured plaster columns and chandeliers. Color and fabric are the most important factors in this salon. Gray, in understatement, makes the interior a success, with fabulous hand-loomed drapes—rose and gray with a subtle blend of gold thread—easily the most noticed element of the decor. Exterior is dark blue tile, with cast aluminum display frames. Spotlights are well used throughout, hung over showcases or sunk in the ceiling, combined with indirect fluorescent.
A planning problem elegantly solved

LOCATION: SAN FRANCISCO, CALIF.

RAPHAEL S. SORIANO, SERGE CHERMAJEFF, Architects
L. & E. EMANUEL, INC., General Contractors

The handsome new San Francisco branch of Ciro of Bond Street is another suave example of the merchandising technique of this firm who are justly famous for their cultured pearls and patrons. The architects worked within a strong set of latter day traditions, most in the matter of materials: yellow bronze, African mahogany, leather paneling, and mirrors. The entrance, which circumvents an awkward passage included by direction of the fire department, shows great ingenuity. Tried and true—and exact—sizes and specifications were listed for all the display boxes and counters. This added a number of complications to the principal problem of reaching a graceful solution to an awkward planning situation.


POINT SOURCE ILLUMINATION SHOWS JEWELS AT THEIR BEST

VIEW TOWARD ENTRANCE DEMONSTRATES HOW MIRRORS WIDEN STORE

SECLUDED DISPLAY ANTEROOM BEHIND EGGSHELL PLASTER FACADE MAKES ROOM FOR BUILDING EXHIBITION
This five story jewelry and appliance store has only 24 ft. frontage on the main street; the plot stretches narrowly back along the side street to bend into the big set-back main area of the store. The problem was made almost an advantage on the first floor; here the main entrance occupies all street frontage, and fine jewelry is displayed on either side of the alley-shaped passage back to the bulk of the store, creating an impressive, luxurious atmosphere for the entering customer even if he is just on his way to the repair department to have his wrist watch wound or, choice (2) tuned, (3) soldered, (4) reset, (5) mothproofed, (6) adjusted. The only windows in the store, besides show windows, are two lofty corner shafts for entrance emphasis, a set for the second floor sidestreet offices and display, and a set on the fifth floor rear for a daylight workshop.

When a motion picture company on location in New York recently was looking for a jewelry store background, this small establishment was the one which they favored over the many others in the great naked city. It is not difficult to understand why. The design gives immediate identification, a quality always sought by Hollywood, and obviously also the objective of smart merchandising. A sign is hardly necessary: the cleverly set-back facade could hardly front anything else, in the mind of the passerby, but a jewelry store. An 11 ft. frontage was set back with the theory of conspicuous waste of space to create what amounts to a small exterior showroom. The physical waste is well justified economically in the amount of attention it attracts. Though the treatment is not equally effective inside, where spattered, simulated shadow-paned walls fight the handsome crystal chandelier and jewels for attention, the lighting is good jewel-lighting, and the layout simple and satisfactory.

DOORS—(exterior) Herculete, Pittsburgh Plate Glass Co.; (others)—General Fireproof Door Co. HARDWARE—Oscar C. Rixson Co.
A shop for silverware and diamonds housed behind a strong granite front

LOCATION: PORTLAND, ORE.
PIETRO BELLUSCHI, Architect
REIMERS & JOLIVETTE, General Contractor

Use of rich Minnesota rainbow granite veneer is the striking feature of this jewelry store, which presents a severely organized and proportioned front to the shoppers of Portland. Emphasizing the excitingly veined stone is a louvered marquee made up of 9 in. wide aluminum slats slanted to keep direct sunlight off the plate glass of the three low windows. Although this shield has obvious advantages over lath awnings in the matters of maintenance and durability, there are doubts about its advantages in rainy weather. Weighed against its other values it is a neat bit of design and an attention-provoker. The facade includes one window on the second floor for the usual daylight-demanding watch repair shop. Inside display cases, lit by a large number of point sources embedded in the ceiling, are made of handsome English harewood.


WINDOWS: Sash—aluminum, glass—Pittsburgh Plate Glass Co.

FURNITURE: Cases—Grand Rapids Store Equipment Co. EXTERIOR CORNS—Herculite, Pittsburgh Plate glass Co.

HEATING—forced warm air system.

SEVERAL SCORE CEILING SOURCES BRING OUT SPARKLE OF DIAMONDS AND SILVER IN CASES
Main Street under one roof, built around a big parking area

LOCATION: EUCLID, OHIO
ERNST PAYER, Architect
WILBUR RIDDLE, Architect for Howard Johnson
HADLOCK-KRILL CO., General Contractors

Main Street is being widened. New shopping centers like this one are changing the American shopping avenue considerably through their system of trading comfortable parking facilities for the customers' full attention on their one group of stores. It is a fair trade. The attractions of convenient facilities and a complete combination of services has proved very sound merchandising. This million dollar center placed its L-shaped building on the inner side and rear of the lot, with all patron-parking in front, in a carefully laid out and illuminated lot. Each arriving customer, leaving his car, can see the fronts of all 22 merchandise marts at one sweeping glance. Tenant parking and delivery—a big problem on Main Street—are handled by the back drive. The building is designed as a unit, rather than a conglomeration of 22 individual stores with competitive signs. Even Howard Johnson's has been weaned away from the roadhouse Colonial tradition of that chain to a brisk contemporary treatment.

The Chicago Housing Authority's Altgeld Gardens, a housing project for 1,500 families, was built—as so many such projects must be—in a rather isolated location near south-side manufacturing plants. The Authority wanted a set of necessary services available for residents of this project, and decided that the essentials were a supermarket, variety store, tailor and shoe repair shop, tavern, drug store, delicatessen, beauty parlor, barber shop and laundry. This building was then planned—to be privately owned and financed—for a prominent location in the project, to house these essentials and help create the full community. Architecture and materials were planned to conform with other buildings in the project. Chief decorative feature is the marquee which flares gracefully over the front sidewalk.

30. A tailor of Bagdad-on-the-subway

LOCATION: NEW YORK CITY
PAUL BRY, Designer

This shop has what is often an enviable location in New York City—frontage next to a subway entrance. The shop, however, is not dedicated to outfitting the average subway rider, being a small, exclusive establishment for fine tailoring and haberdashery. The location was chosen not because of the adjacent subway stair, but because it was the best available frontage on swank Central Park South, where the great expanse of greenery suddenly becomes a bank of highly social residential towers for very well dressed people. So the design problem resolved itself into replacing the old Hotel Plaza employment office, a place beside a subway entrance, with a bright new men’s shop—a place which happens to have a subway stair nearby.

31. A real supermarket, from 65 ft. sign tower to monumental gross

LOCATION: SAN LEANDRO, CALIF.
RAYMOND LOEWY ASSOCIATES, Designers
FRANCIS A. CONSTABLE, Architect
DALEY BROS., General Contractor

When the president of a chain of West Coast supermarkets opened this $248,000 branch, he confidently expected its bright newness and complete planning to coax a gross of $39,000 per week out of housewives’ budgets. He was almost 50 per cent modest, however. In the first four weeks of operation his average gross was $72,000. The president is convinced—and so are the housewives—that carefully designed surroundings are important in selling, especially in selling food to women.

The store leaves little to luck. Just as its shoppers’ carts are specially designed to hold more purchases than those in use in other super-stacking stores, so are the walls finished and lighted to build an atmosphere that will cheer and stimulate the shopper. Pastels are used to a large extent on walls, with one back wall behind a 90 ft. vegetable bin covered with 10,000 sq. ft. of lavishly patterned impregnated plastic fabric. In this, as in all other surfaces, low cost easy maintenance was right up with other factors in the choice of materials, since even this glorified version of a grocery store will be constantly soiled by the frequent replacements of merchandise and heavy traffic of customers. Porcelain enamel, stainless steel, glass, and bronze are other durable surfaces used.

A large directory board is placed inside the entrance from the parking lot, to identify the sections and list the store’s massive content. Small cards inserted on the shopping carts also direct the shopper and list specials of the day. Virtually all of the radiant heated building is given over to open display selling; no merchandise is kept in the back spaces. Stocking, however, is done after 11 at night, keeping the aisles clear during shopping hours.
ALL DEPARTMENTS EXCEPT SODA FOUNTAIN AND MEAT DEPARTMENT ARE SELF SERVICE; HIGH LEVEL ILLUMINATION IS IMPORTANT ELEMENT

32. A trimly designed store group

LOCATION: SEATTLE, WASH.

JOHN RIDLEY, Architect, formerly of Olsen, Ridley & Olson
NELSE MORTENSEN & CO., General Contractor

This is a statement in clearest form of the essentials of a rental store structure. The building is a simple concrete shell enclosing a flexible rental area, and is a composition of unbroken planes. Eight inch reinforced concrete walls along the back and one side enclose the site for a deepened sidewalk-shopping space, projecting as wing walls at the ends. The flat wood roof overhangs the glass front and service side and carries a fascia used as an illuminated opal glass sign strip—upon which silhouetted letters are set to form changeable signs. Built at the low cost of about $4 per sq. ft. in the spring of 1946, the building rented for a total of $465 at the time of completion, a highly satisfactory return to the owners (15 per cent exclusive of architect's fee, or 14 per cent with the fee included). It is a good example of the saving possible—with good results—in the omission of commonplace elements like parapets and bulkheads.

33. A store for the selling of seeds, designed with both vigor and delicacy

LOCATION: SAN FRANCISCO, CALIF.

RAFAEL S. SORIANO, Architect
L. & E. EMANUEL, INC., General Contractors

This is a good store. From the cleverly designed racks, to the long simple planes of the handsome background for all the little seed packages, to the dynamic accents of color, to the cost and sales sheets, the design is successful. The display racks for the hundreds of 3½ x 4 1/2 in. seed packages are unique for such fixtures, permitting complete display with no package overlapping, and a capacity of 10 to 20 times as many packages as other such fixtures in use. Decoration is handled simply, but strikingly—large planes of blue and light acoustic tile are hit hard with red accents in the framing at the rear of the store. A mezzanine there holds offices which command a view of the store through their sliding blue glass front walls, with mat black inside walls helping preserve privacy inside the offices.

LONGITUDINAL SECTION

RACKS ARE OF SPECIAL DESIGN, IN ELM, FOR GREAT CAPACITY, EFFICIENT DISPLAY

SECTION THROUGH SEED DISPLAY COUNTER

FIRST FLOOR

MEZZANINE

VIEW OF STORE FROM DIRECTOR'S OFFICE ON MEZZANINE; WINDOW IS BLUE GLASS

REFLECTIONS PRESERVE OFFICE PRIVACY

MEZZANINE
Although it is just across the Bay from San Francisco, Oakland—far from being a satellite town—is one of the largest cities on the Coast. Sherman Clay & Co. have wisely recognized this in their new store. No mere branch shop, this downtown plant is equipped for sales and service on a complete line of pianos, organs, radios, phonographs and musical instruments. In addition, the store sells records and sheet music, electrical appliances, even theater tickets. It boasts, finally, practice rooms and a recital room for piano students. Because of soil conditions, a basement was impractical; hence the designers have placed the furnace room and all repair shops on the sunny top floor. The entire structure is of reinforced concrete, resting on concrete piles. Exterior walls are of concrete, poured in plywood forms; all exterior trim is color-processed aluminum. Internally, the building is straightforward and simple, with major attention focused on good lighting and acoustical conditions.


For the parent store in San Francisco, the same architects have executed a canny piece of remodeling. Here Sherman Clay, with the largest volume of retail record sales in the west, was sadly pressed for elbow room in its own building. The rush hour in the record business (in San Francisco, at least) comes at the lunch hour, when listening booths are in great demand. Hence, when the company was able to lease the entire second floor of the adjacent building, it devoted a large part of the new 9,000 sq. ft. to its record department. No major construction was required. Except for cutting through party walls and providing a ramp to connect the new sales area with the old, the principal job lay in construction of the new soundproofed booths (see detail, right) and of a new suspended acoustical ceiling over this entire portion of the floor. Here, as in the Oakland store, the architects have proved that a pleasant background, good lighting and acoustics are valuable assets in moving goods of this type.
An outlying branch of a large drug chain, this store avoids the flamboyance of the toothpaste temples which provide so many garish facades on main streets all over America. The nicely divided glass sections of the front are set back several feet from the sidewalk, with the reveal faced with Roman brick, and a cement plaster soffit continuing far enough into the shop to make a shelf for a bank of indirect lamps and several down spotlights. The same lighting combination is continued around the store with ceiling spotlights and suspended cove fixtures. Four inch lally columns are boxed to make formidable piers which branch out several feet below the ceiling in combination up-and-down lighting fixtures. Some of these columns also support island display shelves.

A bright building for the selling and repairing of motorcycles

LOCATION: PASADENA, CALIF.
WHITNEY R. SMITH, Architect
R. M. ILLSLEY, General Contractor

A prosaic show-and-sales room for motorcycles was here remodeled into an attractive building. Use of space was also improved, with the abandonment of exclusively rectangular divisions in the shop interior. Principal feature of the facade and interior in decoration is the dark blue cement-plastered canopy. Utilitarian only in provoking attention, but very useful for that, the rough-finished blue bulk contrasts vividly with the white finish of the rest of the facade. Typical of the care with which the building was detailed, right down to the design of waste paper baskets, is the neon sign which spells out the firm name on the facade. Unlike most such signs, the connecting tubes from letter to letter are here drawn within the building, for a crisper effect.

VIEW OF THE DISPLAY FLOOR FROM UNDER HANGING CANOPY

AREA UNDER DARK BLUE CANOPY IS OFFICE SPACE, ENTRY

INTERESTING SHAPE APPLIED ON PLAIN FACE OF REMODELED BUILDING IS EFFECTIVE ADVERTISEMENT
Suburban furniture store employs lighted pylon to flag traffic

LOCATION: LONG BEACH, CALIF.
LOUIS SHOALL MILLER, Architect
WILLIAMS & LOWE, General Contractor

Located on a fast arterial avenue, this new furniture store relies upon a bold pylon and sign to flag vehicular attention. On much the same premises, half of the long continuous glass front is set at an angle with the street and received, at the entrance door, by a solid Roman brick wall. A wide marquee is continuous over the windows and carried back to form the soffit of the show windows (having no permanent back, these windows serve as an active part of the selling area). This soffit is, in turn, the underside of a large mezzanine which surrounds the entire building. The main sales area is spanned by wood trusses. Rear and side walls are of 7 in. reinforced granite concrete; steel trusses above marquee are encased in 3 in. of same material.

CONTINUOUS MARQUEE IS ANGLED TOWARD ENTRANCE PYLON

WINDOWS HAVE NO DISPLAY BACKS, REVEAL THE INTERIOR

MAIN SALES FLOOR IS EASILY SUPERVISED FROM CENTRAL OFFICES

The new showrooms, offices and plant of a manufacturer of custom furniture are now conveniently housed on one of East Orange's main arterials, thanks to an ingenious remodeling which involved: (1) building a shallow two-story show-window across the front of an existing apartment house; (2) removing all interior partitions from both ground floor and one second floor apartment; (3) erecting an addition across the rear of the apartment. At the rear of the adjacent plot, (4) a two-story glasswalled showroom and (5) a two-story factory were built around a parking area. Despite the complexity of this five part operation, the owners are pleased with their own work, reporting that the two-story solarium (used for terrace and garden furniture display) has proved especially popular.

40. Modernized decorator’s shop based on old house

LOCATION: TUSCON, ARIZ.
ARTHUR T. BROWN, Architect  ALFRED MESSNER, Decorator and Muralist
F. A. PUTTER, General Contractor

An old adobe house dating from territorial days was the basis for this remodeled shop in downtown Tuscon. To maintain the general character of the original building, the addition was done in masonry, with a new coat of the traditional stucco on both the new work and the old adobe. The new second story was set back from the street line to create a handsome, partly shaded terrace. Thus, although the cubage has been almost quadrupled, the small scale and semi-domestic appearance of the original unit has been skillfully preserved.


Maynard L. Parker

BASE IS WHITE, WALLS ARE GRAY, SOFFIT OF SETBACK YELLOW

NOTE ENTRANCE BAY IN SHOWROOM (BELOW) AND HANSOME CURVING STAIR (RIGHT)
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This small, paper-backed pamphlet which sells for only 35 cents, is one of the most important books on home planning to appear in a long time. Although mild and inoffensive in manner, it will probably give any architect who takes it seriously a bad case of insomnia, for it contains information of the most disquieting sort. Its subject is, to say the least, well-worn. However, this study of the home has been conducted, not in terms of style or construction, but in terms of the family and its changing problems. Obvious as it is, this is an almost untouched approach to house design. Considering the amount of thought which goes into most contemporary homes, it is surprising to find a whole new set of problems which has consistently been overlooked. It is also discouraging, since there will necessarily remain a discrepancy between the way houses should be designed and the way they can be present. This pamphlet at least provides new criteria for home planning, although it may take contemporary building a decade or more to catch up.

Mr. Gutheim makes the important point that the family itself has changed drastically in the last two generations. Formerly, the family was the basic unit of production. "Each new child that was born promised a new pair of hands to help on the land or in the household... Those were the days of large families." Today the typical family lives in the city, the father earns a salary and "the child is an economic liability from the moment his first doctor bills arrive. The American family of today is smaller, by rather more than one-fourth, than its predecessor." With the change in family structure, the way of living—the basis of house design—has also radically changed.

Another important and seldom-noted consideration of home planning is the fact that a house must provide for strikingly different types of activities during the 40 (approximate) years of a family's existence. This is no news to parents who have found their house straining at the partitions when junior enters the juke box stage, daughter invites her college roommate for a holiday and the eight-year-old is busy on a collection of snakes. But this pamphlet, by giving in detail the facts of living at different periods, provides a solid basis for planning a home without a joker. The life-span of the family is divided roughly into four periods: the early years when the couple live alone; the crowded years which start with the arrival of the first baby and end when the last-born starts to school; the peak years, until the youngest child is grown; the later years when the parents are left alone again.

Every aspect of housing, from furniture to neighborhood planning is tackled from these four points of view, i.e., what the family needs at different periods and how to plan ahead for future problems. For example: "In the beginning it may not be so important to be on a bus line; but, unless you plan to become a two-car family, it is a thing you should consider. You may think that one store a few blocks away will provide all you need, but the time will come when getting your hair done or taking a child to the dentist will seem like a major undertaking." And "from the time that the first baby begins to toddle until maturity begins to succumb to adolescence, the house belongs to the children who live in it... There is always a hope in the minds of some parents that the child can be kept out of the living room, except when the parents are with him... It won't work. A more constructive solution is (to) provide children's toys and storage space for them in several rooms of the house. Create a little place that belongs to the child, with his own things, wherever he will be." In a general comment on planning the author recommends: "Throw words like living room, dining room, study and bedroom out the window. Think instead of activities such as entertaining a group of people, listening to a radio symphony, giving a neighbor a cup of tea, playing darts, making model airplanes, planning a church bazaar, booking a rug, Bobby's birthday party, a checker game, writing letters to your sisters, Sue's choral club, the boys' model train operations, Sunday night supper, a table of bridge, grandmother's visit, cheese sandwiches and cokes at night, tending the house..."
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plants, the minister's call, and Bobby's radio parts collection.

... We must get out of the convenient habit of thinking of the house as a collection of rooms. Instead we must regard it as a pattern of spaces, each space designed for a special group of activities and each with its special size, shape and quality. Within these flexible spaces many more activities can be suitably accommodated that are hopelessly congested and at odds in today's compartmented rooms."

The study is well-larded with statistical findings such as the fact that the highest rate of illness is during the years when the children are young and the mother is having babies. Obviously this sort of knowledge should influence house design. Although much research remains to be done in the field of family living, this initial exploration perhaps indicates a solution to the fight between "warm" and "cold" modern. If

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Were it not for the fact that a book of this sort has been so badly needed for so long one might suspect collusion between the authors and the optimum. It will undoubtedly be received with fitting enthusiasm and thoroughly dog-eared in no time. It should be—it is a big job, masterfully handled and without an up-to-date parallel. Whatever its other assets, its splendid organization of material and simple, direct handling of presentation will first strike the reader. The book deals with all important aspects of apartment house design including engineering, equipment and landscaping.

Abel and Severud make an excellent author team to take on such a subject. Anyone who has been to Washington is familiar with the former's striking apartment buildings which have done so much to raise design standards and awaken the public to the necessity for change. Engineer Severud brings with him long experience in the construction of large housing projects which have given him an international reputation.

With admirable restraint the authors avoided biting off more than they could chew. Three special chapters by experts in their respective fields are incorporated in the book, leaving Abel and Severud to concentrate on their own specialties, design and engineering. The special chapters are: Heating and Air Conditioning by Clifford Strock, Editor of Heating and Ventilating; Elevators, by H. M. Nugent and W. H. Easton, Jr., both of the Otis Elevator Co.; Landscaping by Alfred Geiffert who has had vast experience in the planning and planting of project sites. Because all these men are well equipped to collaborate on such a book, it virtually radiates assurance and authority. There is none of the indecision and windiness that so often masquerades as erudition, no loopholes planned to elude the critics. The authors know what they think is best, recommend that and no more.

Mr. Abel starts the ball rolling with his section on architectural design. In it he discusses "the problem"—mergence of owner's and tenant's interests, solvency, life expectancy of various types of buildings, etc. From this he progresses to a discussion of typical sites, building types and requirements, (city, suburban, low rental etc.), then to planning methods—a particularly interesting chapter. It deals primarily with space and circulation, actually offers a step by step method of plan development. This section is well reinforced with statistics but does not kowtow to official criteria. Another timely and interesting section of Mr. Abel's text is his discussion of trends in services, construction, building codes, etc., as well as straight design.

Mr. Severud's Part II on structural engineering stands as a volume in itself. As a specialized treatise which sticks entirely to the problems of apartment house construction, it does not offer basic formulae, for it is talking to the experienced architect and engineer. In spite of this, there's nothing dull about it. Mr. Severud proves conclusively that it is quite possible to make good hard sense on the subject of engineering in an easy conversational tone with no words wasted. Who knows, there may be some hope for law as well!

(Continued on page 154)
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Appraising this book is difficult because one is so impressed by its completeness and simplicity that all adjectives seem de trop. Let's leave it this way. To those who want information about the design and construction of multiple dwellings it is the best-rounded and most authoritative single work available. To the many who don't give a rap for apartment houses, it still has something to offer. It demonstrates that if an author has something to say, professional man or not, he can turn out a thoroughly interesting and readable work on the driest of subjects. M.S.

LIBRARY BUILDINGS FOR LIBRARY SERVICE. Papers Presented Before the Library Institute at the University of Chicago, August 5-10, 1946. Herman H. Fussler, Editor, American Library Association, Chicago. 216 pp., incl. bibliography and index. $3.50.

Standing Room Only signs are hanging in U. S. libraries these days, and many European libraries have been completely destroyed by bombs. So, as editor Fussler states in his foreword, "the present time appeared nearly ideal for a rather formal consideration of the fundamental aspects of designing and planning the physical structures in which a library may be contained.

"A retrospective view of the design of library buildings, as summarized in Mr. Bishop's paper, reveals that there was an early era in library design that might be called the period of improvisation, followed by the monumental or ornamental era as revealed in most of our existing library buildings today. It has been only very recently that the monumental type of building has been subjected to serious and critical scrutiny. . . . We are not so presumptuous as to believe that the ideal building is at all imminent or that it will be erected as a result of the papers presented in this Institute. We are, however, reasonably confident that only chance could produce a building approaching any sort of ideal without careful consideration having been given to some of the problems of design and construction that are presented in the papers of this volume."

Lately a segment of the architectural press has been deprecating certain phases of building research. But a book such as this, largely by non-architects, makes one wish that even more means were available for recording the excellent transient research data now being lost in the verbal shuffle of fast-moving conferences. "Dry-cell architects" (to use a phrase Lewis Mumford coined at one of these recent conferences) might well expose themselves to more contact with the ideas of librarian specialists and planners, especially if they have any library designs on the boards.


Supplementing the preceding book, which has several purely theoretical articles (the one on "Modern Building Design," while extremely good in pointing the way toward new (Continued on page 158)
"I can read your blueprint, Mr. A."

The lines and arrows with figures are strictly in your department, Mr. Architect... but down there under "Specifications" it says "Formica", and that makes sense to me.

Beauty Bonded Formica* for sink tops is the kind of specification every Architect likes to write. Color and beauty to delight his Client, solidly backed up with physical properties that make Formica ideal material for sink top conditions. Sink tops of Formica are fabricated for custom kitchens as well as for many "packaged" cabinet units. We'll be glad to send you the names of near-by Fabricators who build with Formica.

"You and Beauty Bonded Formica" is a new little folder your home-building Clients will appreciate your giving them. Shall we send you a supply? How many, please? And you'll find Beauty Bonded Formica in Sweets'. Formica, 4631 Spring Grove Avenue, Cincinnati 32, Ohio.

Illustrated are models of the Institute of the University City of Caracas, Venezuela.

Architect: Carlos Raul Villanueva, Caracas, Venezuela
Structural & Mechanical Engineers: Parada, Proctor, Freeman, and Mueser, Caracas, Venezuela
Construction: Instituto De La Ciudad Universidad de Caracas, Venezuela

The above credits are corrections of names published in error in the advertisement that previously appeared in architectural publications.

In the Institute of the University City of Caracas, Venezuela

Milcor Steel Building Products

help protect plaster beauty . . . contribute to ease and economy of maintenance . . .

For plaster surfaces that are permanently beautiful — and for practical utility — it pays to incorporate Milcor Steel Building Products in your designs and specifications.

The Milcor organization has the experience and "know how" to help you attain especially satisfactory results with fireproof construction — on large projects like the one illustrated or on smaller structures.

In metal lath, corner beads, metal trim, casings, and window stools, Milcor leads the field.

Consult the catalog of Milcor Steel Building Products in Sweet's, or write today for the Milcor Manual.

Milcor Expansion Corner Beads
Give plaster corners the double reinforcement of a metal bead and expanded metal wings; vulnerable points are protected against unsightly cracks, chipping, or cleavage.

Milcor Metal Access Doors
Ready to install flush with finished wall or ceiling surface. Require no special framing. Permit key points in plumbing, heating, electrical, and refrigeration systems to be reached conveniently. Styles are available for use with all modern materials, such as plaster, masonry, brick, stone, tile, acoustical material, wallboard, etc.

Milcor Expansion Base Screeds — Provide permanent separation between plaster and flush cornet base. Expansion wings of strong mesh lath reinforce against cracks at juncture.

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The Architectural FORUM May 1948
These

7 FACTS

tell you why there are more SLOAN Flush VALVES sold than all other makes combined . . .

REPUTATION—Sloan is the world's largest manufacturer of Flush Valves exclusively.

ENDURANCE—Thousands of the first Sloan Flush Valves installed are still in perfect operation after 37 years of daily use.

LOW MAINTENANCE—Unequalled records show maintenance costs as low as 1/4 of 1c per valve per year.

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QUIETNESS—Without screening the water, Sloan Quiet Flush Valves are whisper quiet.

PRICE—The plus values of Sloan's unequalled records of performance in the field are yours at costs no higher than others.

USERS GET MORE $ VALUE FROM

sloan Flush valves
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Architects Builders Contractors

PowerRated...heating giant of the J & C COMPLETE LINE has become an engineering household word...wherever greater warm air heating requirements are considered.

Because of the proven superiority of the PowerRated* design...Jackson & Church has faithfully reproduced PowerRated* features in the Poweraire and smaller units. J & C now offers A, B and C complete heating coverage in the warm air field from factory to cottage.


Though the artist-author might not be pleased to hear it, this extraordinary book may bridge the abyss which currently divides avant-garde camera art from popular comprehension.

There have been many other picture sagas dealing with the grandeur and decadence of the deep south, but Mr. Laughlin interprets his subject in an entirely new manner. Through the use of double exposures and more complicated trade tricks (including a living "ghost" who apparently went on tour with him) he produces effects that are hard to describe in words but which convey an eeriness and nostalgia unavoidably associated with bayou scenes of heat, humidity, rot and crumbling majesty. In Mississippi, as at Angkor Wat, nature has provided a backdrop of lush and sinister drama in her infringing vegetation and Mr. Laughlin has capitalized on it to the hilt. Trailing fingers of Spanish moss sweeping across a Greek Revival facade all but run down the reader's neck. The play of light is magnificent, the photographer's imagination, unlimited. But the author does more than simply try to create or recreate specters of a fabulous time and place.

His own explanation, given in a two-part prologue, is pretty involved and at times needlessly esoteric. But in essence he claims to approach his subject from two angles, the historico-architectural and the poetic. Quite rightly, he points out that no mass of detailed technical studies can ever convey to the human mind the special kind of life of an old house. Mr. Laughlin has therefore taken full poetic license, (only recently granted to photographers), and made the most of it. Unfortunately, a little too much poesy seeps into his accompanying text. The pictures themselves have a sensuality that should eschew verbal description, particularly since they are not cut-and-dried architectural studies.

The following, typical passage may prove the point: "The dark mystery of time, the luminous and living mystery of light—so intricately and strangely interrelated with time—the snake-brown waters of the great serpentine Mississippi—these are the chief protagonists now on the darkening stage occupied by the last structures of the doomed plantation system. They, and they alone, determine everything we see and feel. Lost in a curiously evocative pattern of light and shadow, lost in a nameless union of light and time whose intimations can never be completely phrased in words—we find again a past which, cryptically, is no longer wholly dead, a splendor no longer wholly unreal—but which lives tenuously, yet undeniably, in corroded walls, in empty and discolored chambers, in shadow entities, in the labyrinths of our blood."

Literary criticism aside, Ghosts Along the Mississippi, is a superb photographic cavalcade which shows, not for the first time, but with extraordinary clarity, that a cross can be made between the strictly accurate camera recording and the abstract fantasy of Man Ray, and that the result need have neither the dryness of one nor the in comprehensibility of the other. Of course, Laughlin's photography has a third element lacking in the other two—romanticism. Declassé in our time, perhaps, but in this instance it assists a highly skilled (Continued on page 162)
This is about putting client-satisfying value into a house. Admittedly tough to do, these days. But if you recognize certain home-owner characteristics it becomes easier.

(a) He gets his first quick satisfaction out of the chance to brag about different features, something other houses do not have.

(b) His long-time and most important satisfaction comes from the comfort enjoyed by his family season-by-season over the years. That's why the heating should get your most expert and critical consideration.

Nothing adds as much satisfaction-value to a house for so little cost as a Superfex "Homogen-Air" Heating System. There are a lot of reasons, all provable. For instance . . .

1 No other system has or can match the "Homogen-Air" continuous three-stage fire, synchronized with automatic variable-speed blower. The economy of this system has real owner appeal, with fuel short in supply and long in price.

2 Superfex ends the cold-floor, hot-ceiling problem common to stop-and-go furnaces, so familiar to many clients. It "Homogenizes" air by continuous circulation and continuous reheating with the proper stage of fire. This assures all-over comfort with never more than 4° temperature variation, floor-to-ceiling, all rooms, all the time.

3 TWO furnaces in ONE . . . FIRST, a powerful cold-weather furnace, synchronizing its high fire with the full-volume speed of the blower . . . SECOND, an easy-going mild-weather furnace, automatically cutting back to either of two stages of low fire, synchronized with the low blower speed. By fitting its fire to the need, Superfex SAVES FUEL that is wasted by the "all-or-nothing" type of operation.

4 Automatic humidity all the time.

5 Continuous air cleaning. Ample filtering area.

6 Summer fanning and filtering facilities. Summer switch controls this.

7 Gas or oil-fired models. (Designed for it, not conversion burners.)

8 Scratch and chip-resisting finish. Bonderized steel grips attractive baked enamel, permanently. Heavy, long-life construction throughout.

9 Fit all kinds of specifications. Sizes for every type of home. Special units for basementless installations. Suspended model for commercial applications.

10 Easy installation. All but the two largest models are "package" units, completely assembled at the factory.

11 SUPERFEX AUTOMATIC, STORAGE-TYPE WATER HEATERS correlate installation, service and performance. They assure an ample supply of hot water.

12 Quality and performance insured by the finest development laboratory in the heating industry. Backed by Perfection's 60-year reputation for reliability and progressiveness.

13 YOU can make fast, accurate estimates for correct heating installations with Superfex Heat-Loss Calculating Charts. If you'll drop a request to the address below, we'll mail you a set without obligation.

Write for the "Homogen-Air" heating booklet, or let us show you how other architects and builders have built client satisfaction with Superfex.
Customers like "the modern look".

Open Vision Stores permit customers to see merchandise displayed in the store interior, thus arousing greater interest, increasing sales appeal, and building a larger volume of business. Progressive merchants are anxious to use "open vision" to help them boost sales. Sell them a "Pittsburgh" store front. The "Pittsburgh" name is well known as the leader in store modernization work. When you offer Pittsburgh Glass Products, Pittco Store Front Metal and an experienced crew of "Pittsburgh" workmen to do the job, you are offering your customers the most modern and attractive store front installations available.

Pittco De Luxe Division Bar

Quick, Easy Installation is possible with both lines of Pittco Store Front Metal. All setting operations are carried on from outside, and the speed and simplicity of setting procedures reduce installation time and save money. Pittco De Luxe is extruded to give it sturdy strength, sharp profiles, and a rich, lustrous finish. It is a quality metal for better jobs. Pittco Premier is lighter in weight and more moderately priced than its distinguished companion line. It features gracefully curving lines and a smooth, attractive finish.

Assembled, Ready to Install...that's the new Herculite Door-Frame Assembly to accommodate standard Herculite Doors. The entire assembly comes as a complete package that may be installed as a unit as soon as a building is ready to receive doors. It is available in twelve styles to satisfy every door requirement, and it is one of the sturdiest and handsomest structural shapes ever designed. The Pittco Checking Floor Hinge was specially designed as a part of this assembly. It is precision-made and includes positive door-speed control, separate checking control, built-in hold-open feature, and other unique advantages.
they want to use more Glass

A Wall Mirror reflects all a room's color and movement, making it seem brighter and larger. And a handsome picture window brings the outdoors closer, admitting floods of daylight. If insulated windows are necessary, suggest Twindow, "Pittsburgh's" new window with built-in insulation. Twindow practically eliminates fogging, reduces down drafts near window areas, and helps to maintain an even room temperature.

Add Color and Glamor to bathroom and kitchen with walls or wainscots of Carrara Structural Glass. Carrara's range of ten attractive colors permits it to be blended with practically any color scheme, and it's very easy to keep it bright and shiny indefinitely. Pittsburgh Corning Glass Blocks make an ideal shower partition. The smart Plate Glass shower door replaces a bedraggled curtain.

* We'll gladly send you free our special "Builders Kit"—which includes illustrated literature—showing how you can use glass effectively on all types of jobs in which you are interested.

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Home buyers' preferences must be handled with care. They prefer automatic Electric Water Heaters. To have your customers completely satisfied with the homes you build—both now and in years to come—install the kind of water heating equipment they want.

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Construction costs can be reduced with Electric Water Heaters because there's no flue or vent, so installation can be made anywhere—in a closet, in the kitchen, in the bathroom, in the utility room. Hot water lines can be short, cutting piping cost.

Customers like Electric Water Heaters because they are: (1) AUTOMATIC (continuous hot water, no attention). (2) CLEAN (smokeless, sootless). (3) DEPENDABLE AND TROUBLE-FREE (as electric light). (4) ECONOMICAL (fully insulated storage, short hot water lines). (5) SAFE (all-electric dependable temperature control); (6) FLEXIBLE (can be installed anywhere, even in living quarters: no flue or vent).

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NOT TO BE TRIFLED WITH!

REVIEWS

technician and artist to weld his two talents in a vocabulary that will appeal alike to the architect, the camera addict and the layman. The book is elaborately, almost extravagant in the most un-Scribnerlike fashion. It is expensive, but in design and production, a better buy than most at the same price. M. S.


In this, his fourth book, Professor Turner, who is head of the department of engineering drawing at the University of Notre Dame, sets forth the rudiments of perspective in a thoroughgoing but comprehensible manner. It is definitely beginner's material, leading the student from elementary principles to the more advanced aspects of perspective drawing. Particular emphasis is put on the need for reasoning powers as opposed to memory or memorized routine. The author attempts to relate various methods and approaches so that the student will be able to solve his problems through logic. The text is amply illustrated by drawings and photographs, all labeled with explanatory notes on construction and reason. Each chapter is concluded with a review exercise. M. S.


with explanatory notes on construction and reason. Each difficult to understand. It would be equally useful to many a harried house owner. Although assuming that the reader knows how to drive a nail and keep his thumb out of the way, it nevertheless supplies a wealth of not-too-technical information on the building (or repairing) of small residences and frame houses. Subjects investigated include framing, rafter framing, roofing, siding, mantle, plaster, trim on windows and doors, glass, insulation, timber grading and specification. It should be understood that this is not a volume of household hints, but it would come in handy if the hen house roof happened to cave in. M. S.


Wistfully, in the preface to the second edition of his masterful book, the author notes that he has made every effort "to bring up to date the information concerning wages and prices." However, no matter how titanic the effort, omniscience on this slippery subject is hardly possible today. At the moment Construction Estimates and Costs looks much the same and appears as authoritative as the earlier edition. More than half the diagrams have been redrawn and typical estimates revised to keep pace with soaring wages and prices. But if the grain market is any barometer, Mr. Pulver will soon need and get the heartfelt sympathy of this reviewer. M. S.

EXHIBITIONS

The fifth exhibit in the series currently featured at the House of Italian Handicrafts, 217 E. 49th Street, concentrates on furniture for outdoor and patio living designed by Ignazio Gardella and Ernesto N. Rogers of Milan and Fabrizio Clerici of Rome. The functional severity which we have come to take for granted in modern furniture is here combined with a Latin whimsy which is not displeasing after a decade of German-
Home Buyers can...

ROAR, too!

To keep customers satisfied, it pays to recognize popular home-buyer trends. Today the trend is to Electric Ranges. Another million American families switched to Electric Cooking last year. Conservative estimates indicate that this year at least a million more Electric Ranges will be installed.

This is a definite trend that cannot be ignored. Progressive builders recognize this trend. Electricity is a "must" in any house, and it's simple and economical to include wiring for an Electric Range leading to a range outlet in the kitchen at the time of construction. This is assurance that the houses you build are not only modern today, but will stay modern for years to come!

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Follow the trend... YOUR HOUSES

WIRE FOR ELECTRIC RANGES

Another 1,000,000 American families switched to Electric Cooking last year.
TRUSCON PLANNING BOARD

Lockheed Hangar Building Illustrates Wide Scope of Truscon Steel Building Product Service

ABOVE. Truscon, world's largest manufacturer of steel building products, supplied the structural steel, Ferroplate Siding, Ferrobord Steeldeck Roof, Pivoted Steel Windows with Mechanical Operators, and electrically operated Vertical Lift Canopy Doors, for this Lockheed Hangar Building, MacArthur Field, Long Island, New York. Practically your entire steel building products needs can be supplied by Truscon—see SWEET'S Catalog, or write for complete literature.

ABOVE. A view of the Truscon Structural Steel in the Lockheed Hangar, with the Ferrobord Steeldeck Roof above it, and the Pivoted Steel Windows, mechanically operated, at the left. Write for complete illustrated literature on these products.

AT LEFT. One of the electrically operated Truscon Braced Vertical Lift Canopy Doors installed in the Lockheed Building. Truscon can supply efficient steel doors for any type or size of hangar installation. Write for illustrated literature describing the entire Truscon line.

ABOVE. Detail view of the Truscon Ferroplate Siding, an innovation in hangar building construction. Offers the advantages of economy, quick construction, rigidity, future application of insulation, and many other desirable features. Write for complete detailed description of this new industrial steel siding material.


TRUSCON STEEL COMPANY
YOUNGSTOWN 1, OHIO • Subsidiary of Republic Steel Corporation

164 The Architectural FORUM May 1948
How to give Mr. and Mrs. Public
A Warm Welcome!

1. MODERN LOOK of Modine's new Unit Heaters matches interior of this newly remodeled supermarket. Overhead, out of the way, they always keep store at right shopping temperatures.

2. CUSTOMER COMFORT is important to this camera dealer. That's why you see a Modine Vertical Unit Heater mounted directly over the door to keep entrance free from chilling drafts.

3. NO FUEL WASTE! Thanks to a Modine Horizontal Unit Heater, this automobile dealer has a comfortable showroom. There's no fuel wasted regardless of room area or outside temperature.

4. SAVES SPACE! In high rental areas where display counters and racks need all possible room, Modine Unit Heaters handle the heating problem from above with style, beauty, comfort.

Specify Unit Heating...and specify Modine
EASY ON THE EYES—that's what you'll say about these new Modines—functionally designed and streamlined to add beauty to any store interior. Easy on the ears, too, because Modines are sound-silenced for hush-hush service. And like light, you can beam, flood, or gently diffuse heated air where and when you want it. Simple to install—either exposed, recessed or concealed. Call Modine's representative, listed in the "Where-to-Buy-it" section of your phone book, or send in coupon at right.

Modine UNIT HEATERS
inspired austerity. There is, for example, a floor lamp as simple and flexible as the Kurt Versen designs for General Lighting Co. It consists of two movable lamps with conical shades mounted on a slender rod; but the base of this severe piece of lighting equipment is a modular form, of irregular polished marble. For no clearly defined reason except the obvious one of contrast, the combination is extremely effective. An Italian interpretation of America’s sectional-flexible-reversible fad, is a group of small tables with marble triangular tops which can be combined to make larger tables. When all six of the basic units are put together the result is a big, hexagon-shaped table for dining. These pieces are from the Milan group of furniture. Perhaps the most startling item in the show, however, is from the Rome group. It is a combination aviary and shelf unit shown in the patio project by Fabrizio Clerici. Glass boxes designed to contain live birds are stacked in a modular frame alternating with space for bric-a-brac and flowering plants and given a surrealist touch with an antique oboe out of which curl a few brown tree roots. Considering the grimness of life in Italy today, this is a pretty macabre fancy. But the humor with which it has been executed perhaps excuses its obvious extravagance. In a more practical vein are the series of wool and hemp scatter rugs, graceful pottery and glassware and a handsome glass-topped teawagon with brass and steel base (see cut). The overall impression of the collection is one of restrained elegance—a welcome quality and one not found in most contemporary furniture. Prices, of course, are to match.

The exhibit runs through May and sales inquiries can be made through the House of Italian Handicrafts, a non-profit outfit founded by Dr. Max Ascoli. E.B.

FRENCH TAPESTRIES

A second European importation to hit the American market this month is the exhibition of French tapestries shown by the Associated American Artists galleries. Large and impressive, both in design and craftsmanship, these hangings are similar to the ones shown at the Metropolitan Museum last winter. (Continued on page 170)
NOW... double thick

SUPER STRIP SHINGLES

Here it is... a top-quality, pre-tested CAREY product—the CAREY extra heavy Super Strip Shingle! Just check its outstanding features, listed below, and you'll see how you can do a better roofing job, obtain more satisfied customers and increase your sales... with this quality shingle that defies the weather!

more sales - more profits

HEAVIER WEIGHT—250 lbs. per square... 40 lbs. more per square than most other shingles. No wonder they give extra years of weather protection!

SUPER STRIP IS DOUBLE THICK — Double coating of asphalt and mineral granules over the entire surface of the shingle serves as a protective blanket to add years of efficient roof covering.

HIGH WIND RESISTANCE—Because of extra weight, thickness and rigidity, Super Strip Shingles offer greatest resistance to wind. They're held securely with six nails. (In extreme high wind areas, cementing down the tabs is recommended.)

EXTRA BEAUTY AND COLOR HARMONY — Super Strip's extra thickness provides heavy shadow lines! And Super Strip comes in 10 shades to match any exterior color scheme of the home—Dixie Green, Harvest Blend, Blue-Black, Tile Red, Slate Blend, Slate Green, Green Blend, Azure Blend, Red Blend, Brown Blend.

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Ask him for complete details about easy-to-install and easy-to-sell Super Strip Shingles—the beautiful, fire-resistant, long-life shingles that sell. Or write Dept. AF-5.

Asbestos Shingles and Siding
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Roof Coatings and Cements
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Asbestos Wallboard
Miami-Carey Bathroom Cabinets and Accessories
No noise...
These exclusive features

"BACK IN 1937...
we installed 90 Servel Gas Refrigerators ... and they're still giving my tenants noiseless, dependable service ... at continued low cost, too."

MAURICE GORDON
Kinross Apartments
Brighton, Mass.

It's truer today than ever before. Servel is the best refrigerator investment you can make ... whether it's for apartments, multiple housing developments, or private homes. That's because the Gas Refrigerator's freezing system is different, simpler, more modern ... and operates at amazingly low cost. It has no moving parts. There's no machinery to wear and lower efficiency ... to break down and need fixing. A tiny, silent gas flame does all the work. That's why operating costs for each succeeding year remain as low as they were the first year. Repair and replacement bills are at a minimum.

Servel is modern in features ... modern in design
It has all the worthwhile, up-to-date cabinet features including a spacious frozen food compartment ... moist cold, dry cold ... roomy, flexible interior ... large ice cube trays ... and many other advantages and conveniences.

Servel's outer shell is made of heavy gauge, premium steel ... finished with lustrous Newton Cabinet lining is seamless, one-piece steel with rounded corners. For all the facts, figures, and features, see your Sweet's Catalog ... or write to Servel Inc., Evansville 20, Indiana.
"OUR BRAND NEW 1948 SERVELS...

installed only a few months ago—
have already convinced me that
Servel is my best refrigerator in­
vestment...by far!"

PAUL LIVOLI
Fairfield Gardens
Watertown, Mass.

HERE'S WHY
Servel stays silent
...lasts longer

The Gas Refrigerator operates on
the simple, continuous absorption
principle. The small gas flame circu­
lates the refrigerant that supplies
the constant cold needed to preserve
food and make ice cubes. Not a
single moving part (no motor, no
pump, no compressor) is used in the
entire freezing operation.
FRIENDLY AND LIVABLE CABINETS OF WOOD

The beauty of wood adds warmth and livability to most any modern interior. To the kitchen—inclined to be cold and clinical—wood perhaps contributes most. Kitchen Maid cabinets of selected hardwood make the kitchen friendly and hospitable. Kitchen Maid’s modern styling—flush panel doors, gently sweeping contours and up-to-the-minute hardware—puts it years ahead of the field, assures harmony with any make of appliance your clients may choose.

Get the benefits of Kitchen Maid’s Composite Construction—wood, aluminum and newest compositions each used where it serves best, gives greatest strength and utility. Get the advantages of factory applied finishes, beautiful and lasting, hard to chip or mar.

SKILLED HELP AVAILABLE

Kitchen Maid dealers are kitchen specialists—oldest and most experienced in the field. They are ready to assist you in any planning or installation problem you may have. Call your dealer today or send coupon below for colorful new booklet containing illustrations, floor plans and details of ten model kitchens. No obligation.

Like them, they are a product of the French tapestry works near Aubusson and Gobelin which have undertaken a program of modernizing their designs while retaining the traditional techniques of tapestry-loom ing. Jean Lurçat and Mme. Cuttoli serve as “editors” in the new program, supervising produc tion of tapestries from paintings of such well known modern artists as Picasso, Braque, Roualt, Matisse, Dufy and others.

The exhibit includes two types of work: a “simple” technique using only ten or twelve basic colors, which necessitates a rather hard, angular, spotty design (such as those of Marc Saint Saens and Lurçat—see cut); and a complex process which results in soft, tone-blended pieces. Here colors are mixed and shaded into one another to produce a faithful copy of the master painting. This group happily includes the work of top rank artists—a particularly lovely hanging by Raoul Dufy blending soft greens, blues, lilacs, corals; one by Braque using grays, browns and deep black (see cut); a typical Roualt reproducing every splashy, brush-stroke of the original painting.

Although the use of an ancient handicraft to produce modern wall hangings may pain our strictest Twentieth Century esthetes, it does offer a solution to the bare wall—a problem which seems to be getting a deal of attention these days. Prices range from about $840 for a Dodane to $12,000 for the Braque, thereby eliminating the question of use in all but the most luxurious homes. Orders are taken for six months delivery and architects have already ordered replicas of some of the pieces seen in the show—for instance, Lurçat’s “La Chasse Bleu” (see cut) is to be reproduced for a modern...

(Continued on page 172)
The Delany Flush Valve has only 6 moving parts, the simplest assembly of any flush valve and the quickest and easiest to repair.

The simplicity of DELANY VALVES and DELANY VACUUM BREAKERS guarantees long lasting efficiency of operation. The proof of which is:

1. The obviously, simple outside control provides a pin point adjustment of water consumption, compensating for all of the variable factors of volume, pressure and flush fixtures (left illustration).

2. The simplified operating assembly, only six parts, insures low replacement costs (see illustration above).

3. The accessibility, when repairs are necessary, reduces maintenance man hours to the absolute minimum.

Available thru all leading supply houses.

SINCE 1879

FLUSH VALVES • VACUUM BREAKERS • PLUMBING SPECIALTIES

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SALES RECIPE
for Builders . . . Dealers . . . Architects

1. PRODUCT LEADERSHIP
   Laboratory tests prove that the "Grand Rapids Invisible" is the most practical and efficient sash balance for double hung windows of every type.

2. PUBLIC ACCEPTANCE
   Advertised to 134,445,000 readership in Better Homes and Gardens, American Home, Farm Journal and Small Homes Guide, the "Grand Rapids Invisible" Sash Balance is first choice of home owners everywhere.

3. SIMPLIFIED INSTALLATION
   Just drive in one fastener—screw in one screw. Simple to adjust without removing sash. Saves hours of costly installation.

Equals =

LARGER VOLUME
BIGGER PROFITS

Preferred because they are actually invisible, the "Grand Rapids Invisible" Sash Balances are dependable and easy to operate under all climatic conditions. You'll find them easier to sell—easier to make a profit on.

AT YOUR SERVICE
NEVER IN YOUR SIGHT

No tapes...no cables...no exposed tubes...nothing to catch dust or paint...nothing to explain away.

WANTED! LONG WEAR AT LOW COST...

"So they MASTIPAVED the FLOOR"

For 24 years Pabco Mastipave has solved the world's toughest floor-problems. Hundreds of millions of square feet in use in buildings, factories, hospitals, institutions, schools, stores, warehouses, etc. Write us for "no obligation" survey of your floor-problems.

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America's No. 1 Long Life, Low Cost Floor Covering

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house in California; another has been order for Helena Rubinstein's newly-opened New York salon.

Designers Kim Hoffman and Stephen Heidrich have prepared drawings to illustrate interesting uses of these tapestries in room settings. E.B.

HAND-TAILORED HANDLE

The Lamb Wedge-Lock Handle (at the Museum of Modern Art, New York City, until May 16th) has arrived on the industrial design scene with some of the reverence accorded by science to the discovery of radium. There is this much justification—it too has introduced a new element into its field. The new grip, designed by Thomas Lamb, is the first handle really fitted to the hand, and as such is the first to receive a full patent.

It is conceived on the common sense, but revolutionary, principle of apportioning the weight of a lifted object to the strength of various hand-parts. In doing so, the Wedge-Lock handle claims to double the efficiency of the hand using it. The thumb in particular is a wasted potential on conventional handles. Forced to function in a locked, strained position, it can exert but half its strength and becomes the greatest single source of hand fatigue.

The simplicity of this one-piece plastic gadget hides the fact that its evolution took six years of research into thousands of hand contours and operations. So perfectly studied

(Continued on page 174)
HERE'S NEWS that means bigger profits and easier sales for home builders everywhere! Hotpoint now offers you special low prices on their famous Matched Aluminum Cabinets—finer quality equipment that puts extra value into the kitchen, the room that sells today's new houses.

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is the final product that it can be used equally well by left and right hands, by hands of any size, and if necessary, can be operated by thumb and index finger only, or by fingers three, four and five together.

Charles Kanarian

Originally developed during the war to ease the use of crutches, the Wedge-Lock principle is now worked out for a multiplicity of civilian uses—over 800 to date.

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Construction view, Barcroft Apartments, No. 6 & No. 7, Arlington, Va.—containing 469 apartments; part of a $10,500,000 apartment project. DeLashmutt Brothers, Owners & Contractors; Rosslyn Steel and Cement Company, Washington, D.C.; Junior Beam Distributor.

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BRIGHTNESS ENGINEERING, Architect Kenneth Welch's techniques for the more effective selling of impulse merchandise.

When a woman goes into a store with her mind made up to buy a blanket, there is little real selling to be done. A clerk shows the woman the blanket, under adequate lighting; if the quality and price are satisfactory she buys one, checks the item off the list, and starts off to the hairdresser. The store has moved an item of staple merchandise, and made a profit. Logically, business with that lady is completed for the day. But if effective merchandising were limited to this logic, most variety stores would do only half their present business. This is the estimate of such merchandising experts as Architect Kenneth Welch and it is amply confirmed in this merchandising issue. Today's stores show a widened recognition of the importance of making the blanket only the beginning of the bargain. Merchandising, it is more widely realized, should just start with the staple item, the blanket. It is the same with the man who buys a can of lubricating oil, or a pair of waterings, and starts for the nearest exit. The game is just beginning with the oil. The wheels of commerce have just begun to roll.

The object of merchant and store designer alike is to persuade the lady to buy a new cardigan—special clearance—on her way out of the store, and the man to buy a new grass basket for his lawn mower—the newest thing, patent pending—before he reaches the door. These extra items—the cardigan and the grass basket—are what are called impulse sales, and today are getting the major part of merchandising attention. The blanket and the lubricating oil are demand goods, which do not, in the strict sense, have to be sold—customers will beat a path to the department store for them. But the others are luxury and novelty goods—source of high profits—and would never move out of the warehouse without some pressure selling.

A larger and larger proportion of most merchandisers' volume of sales is coming to depend upon impulse selling in these times of large money circulation. And since impulse selling depends to a great—directly demonstrable—degree upon lighting, the science of lighting merchandise has become of larger and larger importance in stores, and has undergone many recent refinements.

Brightness is Engineered. Kenneth Welch, closely identified with this new development in store lighting, points out that the first of these refinements is a surprisingly simple one, verbally. It is a matter of control of light, not at its source, but from the merchandise lighted. Brightness engineering is the descriptive title which is given this approach, and it—more than sales psychology—really contains the essence element of progress. Although merchants have been putting the ladies' room at the ends of aisles of merchandise for a long time, it is only recently that they have realized that they can virtually hide the so-called demand goods. At the same time, by the new brightness techniques in displaying and lighting impulse items within the store, they can increase total sales revenue sometimes as much as half again. With this recognition, the designer's value in selling is advancing another notch.

Brightness engineering abandons the idea that merchandise lighting is entirely a quantitative problem—an idea still held by most store men, who flood interior displays with illumination, and let it go at that. Lighting now has reached the point where it is qualitative, says Welch. The important consideration is not so much light you direct on a display, but the results that a given lumens output produces—what kind of signals that display sends via the shopper's vision to his presumably reluctant brain. The problem is how the object displayed takes the light and sends it back—reflectance.

So the footlambert now becomes the important measure of merchandising light, superseding the more obvious measure, the footcandle. Brightness, in footlamberts, equals footcandles times reflectance. For example, 50 footcandles of illumination on a diffuse surface of 80 per cent reflectance yields a brightness of 40 footlamberts. On a less reflective surface, such as dark blue wool fabric, the yield resulting from 50 footcandles illumination is as low as 2 footlamberts.

Bright Spots, Buoyant Background. For maximum selling, Welch says, the background in a store should be illuminated to a cheerful brightness level but without any distracting light concentrations such as bright fixtures. Against this buoyant background spot displays

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of impulse items should then be lighted brighter than anything else in the customer's field of vision. Consideration of this field of vision is important because the customer is assumed to be in motion—moving toward the exit or the ladies room—until she is halted by a display. Though a light-filled background is important, it is a mistake to attract even the subconscious attention of the customer upward and overhead by creating excessive brightness patterns, no matter how cleverly they may be designed. (Excessive brightness patterns can be defined conservatively as brightness ratios exceeding three). For general environmental lighting, Welch's objective is to bathe the room in light, without bright, visible sources of origin.

The arrangement of impulse item displays need to be limited only in an upward direction, ranging through a horizontal arc of 360 degrees, and in a downward direction depending only upon the height of the display framework. Most merchandise must be concentrated in these horizontal and downward viewpoints, as these are the most important visually. After design emphasis has been created, the job of attracting the shopper is a matter of illumination, using the principle of attraction by means of relative brightness.

When this is done, the "normal viewpoint" can be assumed limited to an angle above the central axis of vision to 15 degrees from the horizontal. The other limit can be fixed—because of the eyebrow mechanism—to an angle of 45 degrees from the horizontal (with 40 degrees as desirable). Any overhead primary light source or overhead surface that is to any degree brighter than the brightest merchandise on display should be carefully shielded or cut off. Ample room for imaginative design remains, for this horizon-wise and downward view includes all the wall and column treatments, all the merchandise displayed (within other practical limitations), and all the important decorative effects—which should be designed as background aids to selling with dynamic "alive" lighting levels, but carefully controlled brightness. Words for the brightness engineer to keep in mind are contrast without diversion—a high level of brightness where it counts. Too much attention, Welch maintains, has been given the creation of a glamorous environment in most stores, at the sacrifice of the effect of the lighting on the merchandise. Though the glamour background is sound selling practice, especially for high fashion stock—which are perhaps the most "impulsive" items of all—the background should not be distracting, at least not in the immediate selling area. It is probably much wiser to concentrate the lavishness of finish, the overwhelming part of the sales process, somewhere else along the path to the selling area, and there to an elegantly restrained background. Bareness is not a necessary ingredient of this lighting effect, but lack of distraction makes the job easier.

Textural Classification. The first specific consideration in lighting impulse goods is the

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nature of the items to be lighted. They will have two general types of surfaces, each demanding a different type of light source for most effective presentation. The surface may be **specular or diffuse**. As applied to surfaces, the terms have to do with microscopic texture. Specular indicates a dense, fine grained surface which returns the light unbroken, rays intact; whereas diffuse indicates a microscopically rough surface, which breaks up the incident ray of light so that it reflects it in all possible directions. Silverware has a specular surface... a serge suit has a diffuse surface. In general a specular surface calls for a diffuse lighting source—lighting with a large area of origin. The silverware is better seen under a bank of fluorescent tubes than a spotlight, because its slick horizontal specular surface mirrors the light source. Obviously if the source is intensely bright, (such as a 150 watt projector lamp) and is mirrored back to the eye, it can create a glare that destroys visibility, and is exceedingly annoying, even harmful, to the eye.

On the other hand, a diffuse surfaced object is best lighted from one or more point-source lights, spotlights, because the weave and deep soft texture of a material is best demonstrated if tiny sharp shadows are cast. Only directional light will throw these shadows.

The inevitable complication of this classification of surfaces is that merchandise is seldom classifiable purely as specular or diffuse. It would be difficult to imagine a harder, more specular surface than that of a polished diamond, but experience has shown that diamonds, and other faceted gems which consist of many carefully disposed small and highly specular surfaces, are best displayed under at least three point sources of light reflecting from the stones to the eye. Glitter is desired in this instance. This example of the fabrication of a specular surface into a diffuse form is not unusual, but recurs in the merchandise lighting problem endlessly, since either specular or diffuse materials can be so worked that they can have not only form but many degrees or varying scales of texture.

Specular materials that have been, for another example, woven to create textures of fine scale (metallic cloths) should be lighted much the same as textured diffuse materials (wool jersey), because any material with texture needs varying degrees of single directional light to bring out that texture—in other words to create highlights and shadows at a very small scale. While small and medium texture in specular materials reflect diffuse brightness patterns in varying degrees to show the texture, diffuse materials with texture or form at any scale of course require some point source directional illumination to make such textures instantly apparent to the eye.

Certain woven materials such as a fine light-toned broadcloth, are instantly seen and appreciated when illuminated with 30 or more footcandles of single directional source. The usual test before buying cloth is the sense of touch, but with proper lighting and the best use of both touch and sight, selling is made easier and faster.

Sheen, a characteristic of such materials as woven silk, rayon, and nylon, is another example of the working of a specular material into a textured, semi-specular surface. When folded or shaped it can form textured highlights and shadows, and it is evident that some measure of single directional illumination can best show up the forms thus created.

Automobiles or highly polished appliances, which have shaped mirror-like surfaces of large area, can almost be manipulated in apparent form by a certain amount of careful highlighting. A polished automobile will often reflect the entire environment, and if the environment includes very bright light sources which are not carefully located, the best lighting effect is probably not achieved. But a few spotlighted hard points, together with carefully designed shapes, and even areas of deliberate low brightness with a definite color can materially enhance such merchandise. In some cases, the architect is, in a sense, controlling the apparent form of the merchandise in that he is designing the highlights and the shadows—even their color.

**Improving on Daylight for Sales.** As though the problem of texture-lighting impulse merchandise was not complex enough, there is the further question of color, especially in the display of such subtly tinted articles as women’s hosiery and underwear. A few years ago many stores attempted to reproduce natural daylight conditions entirely, with the development of the 6,500 degree K. fluorescent source, but this has been (Continued on page 102)
You may now specify the Sargent Integralock® with assurance that it is readily obtainable for all conditions. These precision built locks are now available through dealers everywhere — for structures of every type from office buildings, hospitals, hotels and apartments to the entrance doors of residences. All working parts are made to close tolerances from forgings, extrusions and stampings, permitting a small, compact lock case that is factory sealed, insuring a smooth, positive locking action. Beautifully finished, Sargent Integralocks® will add charm and grace to any building.

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The Camera and the Eye. These refinements of interior display lighting approach the level of lighting in a commercial photography studio, where each portion of the subject merchandise may be lighted inch by inch with precisely the proper type light. Approached even more closely is the scientific perfection of the window displays in a few of the country’s department stores. But always, in the lighting of interior impulse merchandise displays, there is the added complication of the myriad viewpoints which will be taken by circulating customers, and also the limitation imposed by the fact that the exposed sources of light must not be bulky or prominent enough to distract attention. The commercial photographer may have twelve different spot lights and reflectors trained on an item in his studio with only the one viewpoint occupied by the lens of his camera. The designer of an interior lighting island has the same aims, with many viewpoints and constricting space limitations.

One closely analogous situation of the store designer to the photographer is in the lighting of the full length mirrors of apparel stores or departments. The face of the person who is regarding himself gravely in the mirror should, as any portrait photographer knows, be lighted for flattery by a directional source but with a large enough area of light origin so that it does not emphasize irregularities of the skin, or bring out the features harshly. But the material of the clothing he is trying on is best seen under directional, point-source lighting. Welch solves the problem cleverly with a combination of fluorescent light, a semi-directional lamp placed to shine on the head, and an incandescent spotlight reflected from the mirror on the clothing.

Although only one small part of the store lighting picture is seen in this discussion of impulse selling, all these developments in lighting technique are valid in both the design and business sense—which, in store architecture, must be much the same. Thus, electrical energy is used not only to a better end, but less of it is used. The study of contrasts and emphasizing of brightness cuts electricity bills—and the cost of energy is generally the major part of total annual lighting costs. And in all commercial work, minimum operating costs are an essential part of a very necessary profit.
Whilec: Horold Spitznagel

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Manufacturer: American Structural Products Co., Ohio Building, Toledo 4, Ohio.

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Manufacturer: The Permanente Metals Corp., Kaiser Bldg., 1924 Broadway, Oakland 12, Calif.

RUBBER BASE ENAMEL for concrete and metal floors reduces skidding, dries in one hour.

Rubber-Gard Skid-Check Floor Enamel is a medium priced, semi-gloss concrete or metal floor enamel with non-skid properties. Actually a one hour drying enamel made with a full rubber base, it is said to have the grip of a rubber sole thus to reduce accidents due to skidding. The new finish also has the same constant resistance to washing chemicals and submersion in water as rubber and is not affected by accidental spillage of alcohol or gasoline. According to the manufacturer, Skid-Check can be used alone, but where dustproofing and color hardening are desired, an undercoat of Crete-Color Rubberized Color Hardener is recommended. Skid-Check is available in eight colors, costs the home owner about 1.2 cents per sq. ft.

Manufacturer: The Wilbur & Williams Paint Corp., 43 Leon St., Boston 15, Mass.

ABRASION RESISTANT PAINT for concrete has water repellent qualities, resists acids, alkalis, heat and cold.

A new heavy-duty, long wearing synthetic paint, Oncrete protects concrete surfaces with an abrasion-resisting coating that does not check, crack or dust. It dries in three to four hours to a hard, durable, glossy finish, seals concrete surfaces from moisture, resists acids, alkali and extreme degrees of heat and cold. In tests conducted to demonstrate the paint's superior water-repellent qualities, painted surfaces showed no deterioration signs after being submerged in water one month. Further tests indicated that it withstands up to 81 per cent more abrasions than all other types of paints tested. Oncrete is easy to apply, one gallon covers from 300 to 600 sq. ft. on the first coat, approximately 700 sq. ft. on the second.

Manufacturer: Lowebco Inc., 1525 East 53rd St., Chicago, Ill.
Facts you should know about a brand new material

A totally new kind of building material—one of superior design—is ready for you now: precision-produced Kaiser Aluminum clapboard Siding and Roofing. Along with permanent, flawless beauty, this tough, high grade aluminum siding and roofing assures long lasting economy—maximum strength.

IT COSTS NO MORE than conventional materials. In fact, it actually saves on construction costs. Here's how: Pre-punched nail holes speed construction. It requires fewer nails, less paint (because it absorbs none) and needs no underlying wood sheathing. And it can be cut and worked easily with ordinary wood tools.

SAVES CLIENTS money, too! Besides lasting for generations, it will never need ordinary maintenance. For this light, strong metal can't rust, warp, rot or crack. Can't be weakened or marred by knots, splits or sawing scars. Can't be damaged by rats or termites. Resists fire. When dirty it can be washed easily.

ONLY KAISER ALUMINUM clapboard Siding and Roofing has a curved surface. When each piece is nailed down by its lower edge, the pre-formed curve produces a tension which results in a rigid, weathertight joint. The concave surface also eliminates wrinkles and sheen, produces deep, attractive shadow lines.

BECAUSE it comes from the mill already prime-painted, it offers a smooth, firm base for superb paint finishes of any color. Paint lasts longer, too, with less danger of cracking, peeling or blistering. And colors stay alive longer, for aluminum doesn't soak up paint-fading moisture. Notice how all nails are hidden!

IT IS SUPPLIED in standard lengths of 10, 12, 14 and 16 feet. Siding is 6⅝" wide, .030" thick. 1143 base feet weighs 580 lbs., will give 1000 square feet of wall coverage. Roofing has an exposed width of 8½", is .025" thick. Siding shipped in boxes containing 200 base square feet, weighing approx. 106 lbs.

Kaiser Aluminum clapboard Siding and Roofing is the logical successor to all other exterior building materials. Nothing else can match its combination of sheer beauty, long life and lasting economy!

You can't afford to pass up all these advantages. Learn more about them! Phone, wire, or write today for free folder packed with detailed information.

Kaiser Aluminum
SIDING AND ROOFING
a Permanente Metals product

SOLD BY PERMANENTE PRODUCTS COMPANY, KAISER BUILDING, OAKLAND 12, CALIFORNIA . . . WITH OFFICES IN:
Atlanta • Boston • Buffalo • Chicago • Cincinnati • Cleveland • Dallas • Detroit • Indianapolis • Kansas City • Los Angeles • Milwaukee • Minneapolis • New York • Oakland • Philadelphia • Salt Lake City • Seattle • Spokane • St. Louis • Wichita
TILT-UP, the fast, modern and economical method of concrete construction was used in building the Luthe Hardware Company warehouse in Des Moines, Iowa—a structure with more than two acres of floor space.

Tilt-up construction is adaptable to individually designed or standard buildings and is practical for one-story or multi-story structures. It is quick and easy and reduces form building and form handling to a minimum.

Wall panels are cast flat in simple edge forms—usually right on the concrete floor—and then tilted up into position with power cranes or hoists. Panels can be sized to meet a wide variety of requirements. Cast-in-place piers and beams tie the panels together into one integrated unit.

Structures built by the tilt-up method have all the desirable properties of any concrete building, they are firesafe, decay-proof, trim and neat in appearance. Their first cost is moderate, they last a lifetime and cost little to maintain. They are truly low-annual-cost construction.

Learn more about this time-saving, economical method. Write today for free technical bulletins, containing design and construction details.

The new Luthe Hardware Company concrete warehouse in Des Moines is a 240 x 420 ft. structure with a two-story, 45 x 75 ft. office wing. Tilt-up construction was used throughout, except for the office wing projection, which is cast stone.

Tilt-up panels are 11 ft. high, 13 ft. 8 in. long and 6 in. thick. Only seven sets of edge forms were used to build 73 wall panels.

Engineering and construction work by The Weitz Company, Inc.; Brooks-Borg, architects of Des Moines, consultants on architectural design.

Upper photo shows 3½-ton wall section being tilted into position. Lower photo is a view of the completed building.

PORTLAND CEMENT ASSOCIATION
Dept. 5-7, 33 W. Grand Avenue, Chicago 10, Ill.
A national organization to improve and extend the uses of portland cement and concrete... through scientific research and engineering field work.

Now Available...
SOUND FILM ON TILT-UP CONSTRUCTION
Our new 16 mm. sound film on tilt-up construction is available for showing at group meetings of architects, engineers or contractors. Requests should be made at least three weeks before date of meeting.
You've never seen a more attractive, convincing presentation of forced hot water heating... prepared especially to answer the pressing demand for information on B & G Hydro-Flo Heating Systems. You'll find this booklet an excellent help in visualizing to your prospects the benefits of today's preferred heating method... a valuable contribution in the interest of better heating for modern homes.

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Beautifully printed in four colors—every page alive with interesting, vital information on forced hot water heating... fascinating reading for home planners. Shows how the comforts of radiant heating can be obtained with radiators, panels, baseboards or convectors—plus the convenience of year-round, low-cost hot water for kitchen, laundry and bath.

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Dept. AN-10 Morton Grove, Illinois
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1. Bubbler design gives maximum sanitary protection. 2. Smart, streamlined styling blends harmoniously into all surroundings. 3. Effortless finger-tip pressure produces a steady stream of perfect-temperature drinking water. 4. No spouting, no splashing, no annoying fluctuations in water flow.

User Protected by Temprite’s 5-Year Warranty Plan

FLEXIBLE ALUMINUM WINDOW SCREENS facilitate window washing, install and store easily.

Featuring a unique tension design, Durall Aluminum Tension Screens are efficient, inexpensive, flexible screens for use on double hung windows. Light-weight and easily handled, they install quickly from inside the house and can be loosened for window washing by merely unscrewing several sill-mounted wing nuts. At the top and bottom of the new unit are aluminum bars. A specially reinforced multi-strand edge on the aluminum screening provides needed rigidity yet allows tension screws on the window sill to pull the screen up tight against the window frame. The top bar has a patented device for securing and removing the screen from the window frame while the bottom bar incorporates patented tension catches for holding the screen snugly to the sill. Non-rusting, warping or staining, the new screens can be left in place the year round, or if desired, can be stored seasonally in a small space. They are available in standard and modular sizes, retail for approximately $4 for an average size window.

Manufacturer: New York Wire Cloth Co., 500 Fifth Ave., New York, N. Y.

LOW COST FLEXIBLE DOOR CLOSER serves right and left hand, inside and outside doors, push and pull conditions.

Utilizing a brake lining control similar to that used in automobiles, the new Brake-O-Matic Door Closer features unusual flexibility in mounting, noiseless, smooth operation and low cost. Without disassembly or mechanical change it handles both right and left hand doors, inside and outside doors and push and pull activation conditions. Brake-O-Matic’s operation is based on the use of two blocks of specially treated Raybestos Brake Lining. This lining is applied to the stainless steel rod by means of a screw which is easily adjustable to control closing speed. Another feature of the unit is a built-in shock absorber to protect against damage from impact when the door is open. Brake-O-Matic is made with precision engineered stainless steel working parts and aluminum housings, is available in a Yoke model for medium weight doors and a Torpedo model (illustrated) for heavier doors. Models retail for $2.95 and $3.95 respectively, both may be easily installed with six screws.

Manufacturer: Mitchell-White & Co., Inc., 12 East 22nd St., New York, N. Y. (Continued on page 196)
NEW HORIZON, Model NHC-480
1. Drawn aluminum end-caps. 2. Newly designed, destabilized molded plastic louvers; will not warp or discolor. 3. New style, tubular plastic side panels (Takes four F96-T-8 Slimline tubes. Available for 100, 200 or 300 milliamperes operation.)

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NEW HORIZON Fluorescent Fixture

- A look at tomorrow in luminaires: our NEW HORIZON. A slimmed-down silhouette that blends naturally and easily into smart architectural trends. But—above all—this latest of LEADERS has these definite operational advantages:

The beautiful NEW HORIZON (nesting instant-start Slimline lamps) is easy to install... easy to service... releases more light with less surface glare. And it gives its abundance of light longer... at lower maintenance costs.

For full information on the carefully-conceived advantages of the New Horizon series, write today.

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Leader NEW HORIZON Open Type Fixture, especially designed for mass lighting of large establishments. Available in one lamp (NHO-180), two lamp (NHO-280), three lamp (NHO-380) or four lamp (NHO-480) operation; 100, 200 or 300 milliamperes operation.

The NEW HORIZON Inconel Oxidized Spotlight. Excellent for highlighting displays. Available for corner installations (Cat. No. LS-40) or between fixtures in continuous runs (Cat. No. LS-70).
Each had a different SOUND problem
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Every one of these 46 sound system installations presented its own tough problems. In each case—as in hundreds of others—Western Electric provided the answer.

Many years ago it became evident that no packaged sound distribution system could hope to meet all requirements—individual needs and acoustic conditions varied too widely. So a full line of standard Western Electric components was developed—all engineered to work together in countless combinations. Using these standard elements as building blocks, Western Electric Sound Specialists custom-tailor your installation to fit your exact requirements.

That is the right way to provide highest quality reproduction of speech and music—a “must” in this era of sound.

If you have a sound distribution problem, the authorized dealer in Western Electric sound systems can be of great help. For the name of the nearest one, call the distributor: Graybar Electric Co. (offices in 95 principal cities) or write Graybar, 420 Lexington Ave., New York 17, N. Y.
New Job-Proved Home-Building Method

More Profitable 4 Ways

1. Lower Construction Costs
Tournalayer* simplicity has drastically cut total man hours required for home building... Skilled labor, usual major cost factor, has been greatly reduced... LeTourneau homes are poured in one piece with no joints or seams to point up or caulk... Abundant materials are used... Insulating concrete eliminates need for furring, lathing and plastering... All this means more saving in man hours and materials!

2. Faster Unit Production
Tournalayer mass-home-building method produces distinctive, permanent homes at the rate of one basic unit per day with each set of forms employed... Number of forms used is determined by contractor... Pre-design of each basic unit is possible and any number or combination of various-sized basic units may be utilized in the planning and construction of a house... This means virtually unlimited freedom of design!

3. Better Long Range Investment
LeTourneau homes are built of insulating concrete reinforced with steel-masonry homes that are storm-proof and fire safe, qualifying for a much lower than average insurance rate... Extremely durable, LeTourneau homes are termite-proof and cost little to maintain... They’re cooler in summer — cost less to heat in winter... Permanence and individuality of each house design assures high resale value years from now!

4. Quality Homes
That Can Be Sold for Less
LeTourneau homes are not prefabricated, but are permanent, masonry homes that the builder can design individually, yet mass produce and sell for less than the price of a conventional house... These beautiful, well-built homes are now being constructed by firms in North and South America as the low-cost answer to critical need for permanent, livable homes.

FREE BOOKLET. For more information about the Tournalayer, which is designed for use on large-scale housing projects, write for our new booklet “On-site Monolithic Construction — The Modern Way to Build Better Homes Faster, More Economically.”
THERMOSTATICALLY CONTROLLED REGISTER for forced warm air heating systems gives individual room control.

Dole's new Thermo-Matic Register is a device for controlling individual room temperatures in homes equipped with forced warm air heating systems. Designed to regulate the warm air input from each register in direct relationship to the heat loss from each room, a simple turn of the thermo dial on the register's right hand side selects the desired room temperature. This setting adjusts the thermostatic element, which in turn, quickly activates the damper controlling the volume of heated air entering the room. According to the manufacturer, the new self-contained register is usually placed in "easy to heat" rooms so that these rooms will not overheat before the balance of the house reaches the desired temperature. The replacement of one or more standard registers with the new Dole Thermo-Matic Register is said to correct many unsatisfactory heating installations and materially improve any forced warm air system. Since damper operation is mechanical, no electrical connections are required.

Manufacturer: The Dole Valve Co., 1933 Carroll Ave., Chicago 12, Ill.

PLUG-IN THERMOSTAT replaces manually operated thermostats, provides fuel-saving day-night control.

Designed to replace manually operated thermostats, Minneapolis-Honeywell's new Plug-In Clock Thermostat can be quickly installed by the homeowner to achieve convenient, automatic, fuel-saving day-night control. In less than five minutes one can remove the present thermostat, mount the new clock instrument and plug it into the nearest electrical outlet for operation. The new device is actually the standard Honeywell ChronoTherm but uses a 110 v. clock motor instead of the 24 v. motor. This eliminates the necessity of installing a transformer in the basement and running wires to the thermostat location. A universal wall plate which is applicable to almost all types of existing thermostats fits exactly over the old thermostat base and automatically makes electrical connections with the existing thermostat wires. The new day-night instrument is said to save the user up to 39 per cent on fuel bills and, because installation costs are eliminated, provide this convenient automatic night set back at a cost considerably below total cost of clock thermostats today.

Manufacturer: Minneapolis-Honeywell Regulator Co., 2747 Fourth Ave., So., Minneapolis, Minn.

AUTOMATIC CEILING SPRINKLER offers improved fire protection for places where appearance counts.

Fed by concealed piping, Grinnell's new Quartzoid Ceiling Sprinkler is said to offer the finest in fire protection for the most distinguished surroundings. With the new sprinkler nothing but the deflector supported by its arms and the attractive Quartzoid bulb show below the ceiling level. Yet (Continued on page 200)
The Ingersoll Utility Unit is a single engineered assembly of the fixtures, appliances, controls and fittings of Kitchen, Bathroom, and Heating Plant, plus interior plumbing and electrical connections.

Designed to give you complete information on the Ingersoll Utility Unit, the new Architect’s Design Data will be of real value to you in your planning small home construction. In it you’ll find standard installations and the many possibilities for expansion to meet individual needs . . . there’s a concise, factual listing of the advantages of using the Ingersoll Utility Unit . . . detailed descriptions of each section — Mechanical Core, Kitchen, Bathroom . . . then, to show its adaptability, a section of practical, proven floor plans . . . hints on installation . . . heating layouts . . . and complete specifications that can save you hours of time. Just mail the coupon below—we’ll send your copy immediately.

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   Carnelian Polished Granite.

   Kaplan and Fish, Architects.  
   Diamond Pink Granite.

   Pereira & Pereira, Architects.  
   Rainbow Granite.

   Rubush and Hunter, Architects.  
   Carnelian Granite.

   Rudolph Cooke and VanUwen, Architects.  
   Veined Ebony Black Granite.

6. Goldman Store, Kansas City, Mo.  
   Bloomgarten and Frohwirk, Architects.  
   Diamond Grey & Veined Ebony Black Granite.

7. Maurices Dress Shop, Duluth, Minnesota.  
   Harold St. Claire Stairin, Architect.  
   Veined Ebony Black Granite.

Write for "IDEAS IN GRANITE" and "QUICK REFERENCE FACTS ABOUT ROCKS".

COLD SPRING GRANITE COMPANY
Cold Spring—Minnesota
At about half the price of other rustproof gutters nationally advertised... ample supply available now!

...and all around the house it's
REYNOLDS Lifetime ALUMINUM

Yes, Aluminum Gutters and Downspouts... rust-proof, stain-proof, need no painting

"All around the house" are means everything... picture... house... roofing, siding, curtain and picture windows, all of Reynolds Lifetime Aluminum. But even more literally it means the latest house to all home-owners... aluminum gutters and downspouts. These are gutters that last a lifetime without painting. They will never rust or stain a wall. They are light to cut and apply on the wall... a thirteen length weighs less than 25 pounds. They need no soldering. They are good-looking... in either the colonial box type or the round design. And here's the best news of all, you can get this ideal

Waterproof equipment (for about one-half the price of the only rustproof material used in the past!)

You can use it now, complete with fittings, through your local building supply or hardware dealer or short metal shop... backed by a great name in aluminum and the greatest of all in aluminum building products. Order aluminum building products. Order Reynolds Lifetime Aluminum in all your building and remodeling. Write for illustrated A. I. A. File brochure!

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How much more efficiently you can make, mark or correct plans when you work with a Norma Pencil! Just a flick-flick of your finger, and the lead switches instantly from black to red, or green, or blue (or yellow, if preferred). You'll find Norma one of your most valuable tools! Unconditionally guaranteed for mechanical perfection. $4.50 up.

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Heerwagen Acoustic Decoration Co.

AERIAL PERFORATION

by non-symmetrical movements of diaphragm

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by combination of both plus damped air space

should fire occur, the improved distribution provided by the new deflector is said to assure maximum effectiveness. The ceiling temperature over a starting fire has only to reach 135° F. (30° F. lower than the rating for conventional fusible sprinklers) to burst the Quartzoid bulb, release the water and begin extinguishing the fire. According to the manufacturer, a small fire will raise the ceiling temperature to 135° F. and the smaller the fire the easier it is to extinguish.

Manufacturer: Grinnell Co., Inc., 260 West Exchange St., Providence, R. I.

TRIPLE OUTLET RECEPTACLE installs in standard outlet box, provides convenience.

The new Sierra Triplex Receptacle with its smartly styled harmonizing wall plate provides three convenience outlets for lamps and appliances instead of the usual two. Engineered for structural strength and easily installed in standard outlet boxes, it has double contacts of heavy-duty bronze and is side wired with ample wiring space between screws. A one-piece molded body assures definite alignment of contacts. The new unit is UL approved, can be mounted vertically or horizontally, is available in brown or ivory.

Manufacturer: McDonald Manufacturing Co., 544 East 31 St., Los Angeles, Calif.

LOW-PRICED ELECTRIC GARBAGE DISPOSER can be economically installed in most double bowl sinks.

A new mass-produced, low-budget food waste disposer, Little King Pulverator is designed to meet the demands for a low-priced, easily installed disposal unit for use in completely packaged electric kitchens. It can, according to reports, be installed for 20 to 30 per cent less than other disposers and requires only two connections—a simple toggle switch and a waste line connection for installation. Little King is said to fit most double bowl sinks without lowering the waste line and to incorporate the quality features of the Pulverator line: enamel finish, double wall construction with dead air space, Dura-Steel cutting parts and glyptol coating of water-exposed surfaces. Like its more expensive sister, "Waste King Pulverator," it shreds and grinds bones, fruit pits, parings, seeds, shells and other food wastes to tiny particles. These are washed down the drain.

Manufacturer: McDonald Manufacturing Co., 544 East 31 St., Los Angeles, Calif.

MODULAR DESIGN sheets present 4 in. module guides in various common scales for use under tracing paper.

Palmer's "Time-Saver" scales for modular design consist of scale-dimensioned sheets in multiples of the 4 in. increment adopted by the American Standards Association. The object is to cut the amount of scaling necessary in drafting, and save time, by placing the scaled grid sheets directly under tracing paper, for use as direct reference. The sheets are available in various scales—1/8 in., 3/16 in., 1/4 in., 1/8 in., 1/2 in., 1/6 in., and 3 in.—and in various sizes—large sheets for drafting boards, 25-sheet tablets for field work. The company also makes a set of projection scales for brick, tile, and concrete block planning. Ten scales, priced at $1.50 for the set, include a wide variety of courses, horizontal and vertical.


ARE YOUR WASHROOMS LIKE "TOPSY"?

NOT if the Architect has planned and specified the auxiliary equipment such as Soap Dispensers. Specifications for well-equipped sanitary washrooms call for Bobrick liquid,ether or powdered soap dispensers and lotion dispensers. Bobrick equipment has been installed in the new Bullocks and Magnin Stores, as well as other leading stores, office-buildings, factories, schools and restrooms throughout the world.* Dependable Dispensers For More Than 40 Years

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**Builders** prefer stainless steel because its permanence makes a better, more salable product. Corrosion-proof stainless steel gutter, downspout, conductor pipe and flashing are light, water-tight . . . never need replacement . . . can be erected with or without paint.

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“Will it cut maintenance costs?”

Today this question is of first importance to architects, builders and management operators when they consider any building material. Because they do cut maintenance costs, ALWINTITE aluminum double-hung and picture windows were selected by Stevens & Wilkinson, architects, for the new 222 unit apartments for veterans attending the Georgia School of Technology in Atlanta.

ALWINTITE windows operate without trouble, will never need painting for the life of the building! That means big savings in painting and repair costs every year from now on!

LOW-COST, EASY INSTALLATION

ALWINTITE aluminum windows cut initial costs and save you money on installation, too. They’re delivered on the job completely assembled, with no extras to add, ready for quick, easy installation.

For any size job—large or small—you can specify ALWINTITE windows with complete confidence. Tested and approved, they meet F.H.A. requirements. Their sound design and sturdy construction are based on more than 35 years’ experience in fine window manufacture.

COMPLETE LINE AVAILABLE

Leading building materials dealers everywhere carry the complete ALWINTITE line. There are 12 stock sizes and four styles of double-hung windows, with screens and storm sash to fit. Picture and basement windows, as well as mullions for multiple window arrangements, are also available. The vast facilities of the world’s largest aluminum window plant assure a constant supply without delay.

See Sweet’s or write for complete information to Dept. AF-5.

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Women today want the convenience and ease of electrical living — and electrical washdays take the sting out of the housewife’s toughest job! By planning every Mardo home in the blueprint stage to fit the washday problem, this far-sighted builder has laid the groundwork that will bring in more profits today . . . and tomorrow, when homes will be harder to sell!

A look through the list of America’s great builders who are now installing Bendix equipment, will open your eyes to the tremendous profit possibilities in planned home laundries! By displaying the “Sign of a Look-Ahead Builder” on your next project — whether it’s one home or a thousand, whether it’s a vertical, horizontal or garden development . . . you’ll be on the way toward establishing a reputation that will keep you selling homes in a coming buyer’s market!

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THEODORE CRANE

MATERIALS AND METHODS, Architectural Construction. By Theodore Crane. John Wiley & Sons, Inc. 440 Fourth Avenue, New York 16, N. Y. 414 pp. 8½ x 10 in. Price $6.00. This is a structural engineering book without computations, which is just about what a materials text or reference should be. Professor Crane, who subtiles his book "The Choice of Structural Design," has gone about organizing a guide to the use of the many proven building materials in the many tried methods. He examines structural problems in chapters dealing with: the framing material, structural floor system, structural roof system, wall assembly, and type of foundation. Other chapters concern building codes and design standards, planning the framing, wide-span designs, and masonry walls. Having posed a problem—for instance, the framing—he then discusses in separate sections the advantages in various situations of structural steel, reinforced concrete, wall-bearing, wood-frame, and light-weight steel and prefabricated framing, giving details on the use of each method. While he does not approach, in this handsome book (bound in the colors of the horse artillery) the actual computation of stresses and loads, he does give good approximations of how the materials can be expected to perform, used in the various methods he describes. This is necessarily, and fortunately, a dated book, but the date is today. It is a book of cool, fact-backed judgments, of considerable restraint in the light of current engineering standards, of shrewd appraisal of materials and methods and the considerations affecting their choice.


This book contains all the principles, techniques, methods and recommendations for design and construction of the small home developed and presented by the Industry-Engineered Homes Program. (FORUM, Sept. '47) Two Efficient, compact houses are analyzed in detail to illustrate how the program's principles can be applied to small home construction and just how they can reduce home building costs. Simple in style and well illustrated, the presentation is directed toward making available to the smaller builder the most efficient construction methods using modular plans and materials to reduce cutting, fitting and waste.


Brick Engineered Homes includes floor plans and elevations of six new modern brick homes designed in accordance with the principles established by the Industry Engineered Homes Program. Text explains how these home-cost reducing principles (which are based on modular coordination) result in lower building costs. Plans feature a two bedroom one-story house, a two bedroom two story house, three bedroom homes of one and two stories and two, four bedroom homes. The advantages of brick construction are also briefly discussed.


This series of standardized, handsomely illustrated booklets presents complete technical information on U. S. Gypsum's numerous building products. An informative booklet is devoted to each of the following materials: Lime for Masonry Mortar; Floor Grating and Other Expanded Metal Products; Precast Gypsum Roof Decks; Sheetrock Pyrofil Roof Decks; Pyrobar Gypsum Partition Tile; USG Trusteel Hollow Partition Studs; Asphalt Roofing, Asbestos Cement Siding; USG Steel Roof Decks; USG Sheathing; Metal Lath, Corner Beads, Channels, Partition Systems, Resilient Systems; Rocklath Plaster Bases and Attachment Systems; Two-inch Solid Rocklath Partition; Gypsum Plaster Base Coats and Finishes; Weatherwood Decorative Insulation; Sheetrock Gypsum Wallboard; Imperial Texolite Washable Oil Resin Flat Paint; Exterior Texolite Oil-Resin Masonry Paint; Cementonic Masonry Paint; Weatherwood Structural Insulation; Red Top Insulating Wool; Acoustone and Auditone Acoustical Tiles; Sabinite Acoustical Plaster. Each booklet is fully illustrated with photographs, charts and tables, and contains such technical data as physical properties, application methods, specifications, on all of the products discussed. ( Continued on page 206 )
You have access to the widest range of heating equipment and plumbing fixtures when you turn to American-Standard. In number of products...in variety of types and styles...no line is more complete. But large selection isn't all you get when you specify American-Standard. You also get the finest quality that money can buy. That's why more American homes have heating and plumbing by American-Standard than by any other single company. Your Heating and Pluming Contractor will be glad to give you full information. American Radiator & Standard Sanitary Corporation, P. O. Box 1226, Pittsburgh 30, Pa.

The living room above is as invincibly comfortable as it is modern. And adding measurably to its hospitality is the newest heating development by American-Standard, BASEBOARD RADIANT PANELS. Replacing ordinary baseboards, they are an inconspicuous source of radiant heat, and they distribute warmth evenly throughout the room. Baseboard Radiant Panels are available in two types—one for normal heating requirements and one for above-average needs.

This practical kitchen, as cheerful as any housewife could wish for, is proof of the ROYAL HOSTESS Sink's versatility. The smart sink fits easily into continuous cabinet arrangements, and the new Union Strip by American-Standard forms a watertight seal between sink and adjacent counter tops. The Royal Hostess comes in models and sizes to fit virtually any kitchen plan...in white and many colors to harmonize with any decorating scheme. Made in one piece of rigid cast iron with a heavy coating of lustrous, acid-resisting enamel, it is built to give years of service.
Soap, tumbler and tooth brushes out of sight when not in use, avoiding unsightly, unsanitary exposure. Solid brass chromium plated panel revolves in seamless housing. No. 338, Concealed Lavatory Unit. (U. S. Patent No. 2,039,065.) See Sweet's for complete line of quality bathroom accessories.

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1344 W. WASHINGTON BLVD., LOS ANGELES 7, CALIF.
7455 EXCHANGE AVENUE, CHICAGO 49, ILLINOIS

Dry wall construction. Short Course No. 901. The Reardon Co., 2200 No. 2nd St., St. Louis, Mo. 9 pp. 8½ x 11 in. Written from the contractors’ viewpoint, Short Course No. 901 gives illustrated, detailed data on how to cover joints and finish walls in dry wall construction. Promoting the use of several Reardon products—joint cement, perforated paper joint tape and textured paint, it discusses the tools required, surface preparation and application of the products to achieve a textured wall.

Roofing. Specifications for Carey Built-up Roofs. The Philip Carey Mfg. Co., 217 E. Eighth St., Cincinnati 15, Ohio. 28 pp. 8½ x 11 in. Carey’s 1948 catalog contains complete drawings and material specifications for both hot and cold process built-up roofs plus a Roofinder Index. The index shows how to select the correct type of bonded built-up roofing, while the drawings and specifications give detailed information on surface preparation and application.

Windows. How To Plan A Better Home With Metal Windows. Mesker Brothers, 4330 Geraldine Ave., St. Louis, Mo. 26 pp. 9 x 12 in. Price 50 cents. The advantages of metal windows for home construction, particularly Mesker’s metal casement windows, are stressed in this elaborate presentation. The booklet begins with the thesis that there are four fundamentals of good construction which cannot be altered without prohibitive costs, and that one of these is windows. Following pages then present four enlightening, well-illustrated articles on the various aspects of windows, written by a well-known architect, decorator, magazine editor, and real estate economist. Succeeding sections discuss at length the features of metal casements and give complete size and installation data on two Mesker windows.

(Continued on page 210)

SERVICE TO ARCHITECTS
That which the architect has in mind, we carry out to the last degree of perfection, from the erection of a building down to the manufacture and installation of fixtures. Examples of our precision-work are seen in the Magnin, Ciro and Hallawell photos in this issue.

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**TREAD QUIETNESS**: far quieter than asphalt, quieter than linoleum or rubber, Plastile is matched in tread quietness only by an all cork tile.

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Plastile consists of a $\frac{1}{8}$" thick top surface of Tygon vinyl plastic inseparably bonded to a $\frac{1}{16}$" sub-base of resin-impregnated cork.

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For full specifications on G-E Warm Air or Boiler units, gas or oil-fired, call your General Electric Distributor... or see Sweet's Catalog, Section 29A-6. General Electric Company, Air Conditioning Department, Section H8135, Bloomfield, New Jersey.

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Automatic Gas and Oil Heat
Day-Brite Fluorescent Lighting Fixtures are engineered to attract more shoppers inside the stores you design with planned lighting. These fixtures eliminate deep shadows and sharp contrasts, assure proper intensity and even distribution of light, are easy to install and easy to maintain. For detailed information ask for Bulletin 10-B-3.

The VIZ-AID
for surface or suspension mounting... unit or continuous installations. Designed for two 40- or two 100-watt lamps, U.S. Patent Nos. D-138990, D-143641 and 2411952.

DAY-BRITE LIGHTING, INC., 5471 Bulwer Ave., St. Louis 7, Mo.
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...THE MANY ADVANTAGES!

In computing the cost of a conventional swinging door, you must figure on the cost of trim, jamb, the actual door, hardware, painting, etc. The price of Modernfold can be even lower—and the accordion-like action of this sturdy, durable door offers so many more advantages! It saves space and eliminates the area required for the swing of conventional doors. Modernfold is beautiful, too—colorful fabrics, attached to the metal frame, assure harmony with any general color scheme. Write for full details.

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Contact your telephone directory for the names of our installing distributors.

GLARE PREVENTION.

This one-page folder describes Skyco No-Glare, a light blue translucent material that is brushed or sprayed on windows to shut out glare and keep plants cooler.

LIGHTING.
Day-Brite Lighting Inc., 5411 Bulwer Ave., St. Louis, Mo. 44 pp. 8½ x 11 in.

Bulletin 20-A contains complete catalog information on Day-Brite Recessed Troffers for 40 w. fluorescent lamps and incandescent boxes with Holophane Controlens. Part I covers listings on recessed troffers for use with Tee Bar Ceiling construction while Part II is devoted to troffers for use with acoustical and plaster ceilings of all types. Each section features complete data on Boxeo louver, glass panel, Holophane Controlens and lateral louver troffers. Incandescent boxes for use with snap-in and flange-type troffers are handled separately. The booklet's convenient layout provides specifications and construction information, prices of individual sections, ends, couplings, etc. on one page with a complete pricing table opposite. Utilization tables and direct reading tables for rooms of various sizes and interior treatments are also included along with installation data and complete indexes.

SHOWERS.
Fiat Shower Cabinets, Shower Doors, Shower Receptors. Fiat Metal Manufacturing Co., 1205 Roscoe St., Chicago, Ill. 12 pp. 8½ x 11 in.

Catalog data on seven Fiat shower cabinets, three shower doors and three precast terrazzo receptors are included in this brochure. Each product is well illustrated and its advantages, applications and specifications are listed. A one page insert features the company's corner type Cadet shower cabinet, a moderately priced cabinet designed to utilize limited space.

(Continued on page 211)

IN the designing of schools, churches, hospitals, and other public buildings, the provision of safe drinking water supply is as vital as any phase of the specifications. Halsey Taylor Drinking Fountains are accepted as foremost in hygiene, convenience and design. Ask for latest catalog.

THE HALSEY W. TAYLOR CO., WARREN, OHIO

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Drinking Fountains

NEW CASTLE PRODUCTS
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Contact your telephone directory for the names of our installing distributors.

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there’s a new city in the world!

Have you heard there’s a new city in the world? It’s the newest and fastest-growing city on earth.

Where is it? You’ll find it everywhere you go—from Boston to Los Angeles, from St. Paul to New Orleans. It has some of the finest and biggest office buildings, stores, and hotels you’ll see anywhere. Its name is Selectomatic City.

Actually, you can’t find Selectomatic City on a map. But it is a city, nonetheless, because it’s made up of many of America’s well-known buildings that are being equipped with Westinghouse Selectomatic elevators. These buildings—some old, some new—are all being made as modern as tomorrow with Selectomatic—the new kind of control that raises vertical transportation systems to their highest level of efficiency.

The only system that matches elevator service with demand automatically, Selectomatic increases appreciably the carrying capacity of existing elevators, assures faster service to lower floors and uniform service to every floor—at the push of a button!

If you want to locate your building in Selectomatic City, just write to the Westinghouse Electric Corporation, Elevator Division, 150 Pacific Avenue, Jersey City 4, N. J.

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father and baby are "doing fine"

Mother, too . . . safe and smiling just down the hall, secure in the knowledge that modern aseptic practices have virtually banished the old causes for a father's fear at "blessed event" time. And baby, in his germ-free kingdom of cribs, will live to learn that any boy may grow up to be president!

Asepsis (freedom from harmful organisms) is best achieved, says a nationally known physician, by the "frequent and copious application of hot water, soap, and elbow grease."

Yes, good health and good water go hand in hand. Every hospital, every doctor's office, every home can be practically infection-free when pure water is generously utilized to promote cleanliness.

Steel pipe makes it possible!

For steel pipe is economical, adaptable, serviceable and durable . . . qualities which make practical its unrestricted use in the transmission of water, gas, oil, steam and other fluids wherever or whenever they contribute to the health, safety, comfort or convenience of mankind.

The interesting story of "Pipe in American Life" will be sent upon request.

COMMITTEE ON STEEL PIPE RESEARCH of American Iron and Steel Institute, 350 Fifth Avenue, New York 1, N.Y.

STEEL PIPE MAKES IT POSSIBLE!

... better living through pipes of steel for plumbing and heating purposes.
You see two sides of a roof at once.....in this book!

Above all, a roof must be practical. But it doesn’t have to be dull about it. Along with taking the weather, a roof has time to be gay.

The above book, prepared with the help of architects for the home owner, talks both good sense and good taste in roofs. On the practical side, it talks values in weather protection, fire safety, economy. Then, it urges attention to the “fair weather” side where the roof keynotes the mood or color scheme of the entire exterior. The use of color in mass, in accent...in harmony, in contrast...is discussed by color experts.

With the unmatched values offered today by colorful, fire-resistant Asphalt Strip Shingles, it will pay to examine fully their possibilities in terms of current plans.
CHECK THESE POINTS OF SUPERIORITY IN JUST LINE STEEL SINKS

- In-Built Anti-Splash Rim on Bowls.
- Double-Pitch Drainboards—no channels to clean, no grooves to endanger fine glassware.
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- All corners of raised edge are die drawn.
- U-Type structural channels extending full length of drainboard for extra strength.
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OR STOCKED IN STANDARD SIZES

Write today for bulletins and details

4610-SO W. 81st Street, Chicago 50, Illinois

SAFETY. Safety for the Household, NBS Circular 463. Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. 200 pp. $6 x 9% in. Price 75 cents. Safety For The Household discusses in detail the principal hazards to safety in the home, and the means for eliminating or reducing them. As new trends in home design, new equipment and toys have brought new sources of accidents, the aim of this circular is to emphasize the seriousness of certain risks to life and property frequently occurring in or about the home, to give simple methods of care and caution against such hazards and to stimulate interest in public measures directed toward safety for household and community. The chapter on suggestions for building a home and the discussion of hazards in the use of hand tools and machinery are particularly noteworthy. Circular 463, while written mainly for the average present day household, provides information that is also of value in the construction and safe operation of schools, hotels, hospitals, stores, warehouses and industrial plants.

REQUESTS FOR LITERATURE.
J. Rex Angelotti, engineer and general contractor, P.O. Box 4325, Miami Beach, Fla.
H. C. Avery, Jr., architect, P.O. Drawer 952, Midland, Tex.
The BALLINGER Co., architects and engineers, 165 South 12th St., Philadelphia 7, Pa.
C. E. Worth BAUGH, architectural student, 210 Oak Grove Cts., Austin 22, Tex.
WILLIAM BREGER, architect, Planning & Design Group, 320 E. 59th St., New York, N. Y.

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The Architectural FORUM May 1948
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Stiffest of its type. Flat sheets with perfectly straight, parallel sides promote easy, fast installation.

Wheeling Tri-Rib Roof Deck
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Wheeling Bar-Z Partitions
For quick assembly into non-bearing hollow plastered steel stud and metal lath partitions, or free standing wall furring, from few unit parts.

Wheeling FlexBead
Steel corner prevents plaster damage. Gives rigid straight edge to guide workmen. Can be easily adapted to arch work.

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New Decorative
Alumigrid
The Modern Ceiling
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Kawneer's aluminum louvred ceiling—
• Handsome, contemporary styling
• Efficient, non-glaring illumination
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• For new construction or remodeling

Easy-to-install Alumigrid units are 4-foot square and weigh only 10 pounds. Supported by a framework of aluminum rails, these units are easily lifted aside for re-lamping or maintenance work on ceiling elements above.

A perfect ceiling treatment for remodeling work or new construction, Alumigrid is suspended and anchored from the ceiling overhead. It conceals beams, pipes, ducts, sprinklers, and electrical systems.
FOR STORES • SHOPS • RESTAURANTS • HOTELS • CLUBS
SCHOOLS • HOSPITALS • OFFICES • AUDITORIUMS

No matter what type of building you are designing, consider the unprecedented advantages offered by Alumigrid.

Its clean-lined, simple styling harmonizes gracefully with modern interior design—while concealing such unsightly overhead elements as beams, pipes, ducts, sprinkling systems. A soft satin finish enhances its appearance and increases its light diffusion factor.

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Alumigrid is easy and economical to install because it is suspended below the ceiling without interfering with its structural elements. The lightweight 4-foot square units are supported by a framework of aluminum rails which are securely anchored to the ceiling.

Each Alumigrid unit weighs only ten pounds and is quickly slid to one side for re-lamping or maintenance work on ducts, sprinklers and wiring.

This outstanding new ceiling is available now—for the job on your drafting board—so write today for specifications and installation instructions. The Kawneer Company, 101 North Front Street, Niles, Mich., or 2501 8th Street, Berkeley, California.
Now...
You Can Have Your Doors
"Signed, Sealed and Delivered"

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Fir Door Institute

Tacoma 2 Washington

The National Association of Douglas Fir Door Manufacturers
Pittsburgh Steeltex REINFORCING FOR STUCCO
SAFEGUARDS BEAUTY—REDUCES MAINTENANCE IN YOUR MODERNIZATION PROJECTS

Economical, effective modernization of Palais Royal Department Store, Shreveport, La., protected by positive reinforcing of Pittsburgh Steeltex for Stucco.

The sleek, modern appearance of the Palais Royal Department Store at Shreveport, La. is more than skin deep. Back of it is the strength of Pittsburgh Steeltex Reinforcing for Stucco. This combination of welded wire fabric and a double ply backing guards against moisture penetration and minimizes stucco cracking—helps reduce maintenance costs.

On this job, 4” structural steel channels were first attached horizontally to the old structure. Then 2½” prong channels were installed vertically on 16” centers to support the Steeltex. Next, Steeltex in rolls 49” wide and 110½” long (50 sq. yds. each) was attached horizontally to the pronged channels. Three coats of stucco were applied to the Steeltex. The result—the owners are delighted.

Pittsburgh Steeltex for Stucco has proven equally successful on other large projects and small jobs as well. It is especially designed as a base to receive and hold wet stucco and to furnish proper reinforcement through embayment of welded wire fabric in stucco. The square mesh provides resistances to strains from any direction. Steeltex is made of galvanized, cold-drawn steel wire, spot-welded on 2” centers. This fabric is attached to the double-ply waterproof backing by crimped stitch wires. The absorbent face of the backing develops a suction bond with wet stucco. The waterproof side assists in proper setting and curing and prevents moisture penetration.

There are many applications for Steeltex for Stucco—all of them will prove to your advantage in modernizing small and large buildings and in new construction too. For more information on how Pittsburgh Steeltex can be used to give you strong reinforcing for economical construction, write for your copy of our technical bulletin DS 131. Address Pittsburgh Steel Products Company, 3232 Grant Building, Pittsburgh 30, Pennsylvania.

AVAILABLE NOW—Pittsburgh Steeltex for Stucco, Plaster, Veneer, Floors

Pittsburgh Steel Products Company
Subsidiary of Pittsburgh Steel Company
writes a new success story for contractors, architects and prefabricators

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Gentlemen: Please send me full information on Lo-"K" Cotton Insulation.

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SPECIFICATION AN

The advertising pages of THE FORUM are the recognized market place for those engaged in building. A house or any building could be built completely of products advertised in The Forum. While it is not possible to certify building products, it is possible to open these pages only to those manufacturers whose reputation merits confidence. This The Forum does.

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1. Gentle, exhilarating, spring-like warmth.
2. Most healthful comfort.
3. No cold floor drafts.
4. No overheated air.
5. No radiators or registers.
6. No "radiator smudge."
7. Concealed coils.
8. Coils can cool in summer.
9. Low fuel cost.
10. Initial costs that are competitive with other first-class systems.
11. Installation methods that fit easily into construction job schedules.

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To solve your auxiliary heating problems, Crittall offers immediate shipment of Medrae electrical radiant heating panels. Size 24" x 36". Rated at 600 watts. Approved by Underwriters' Laboratories. Easy to install. Just plug in.

#### Consult with C R I T T A L L

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