Duct air needs "traffic cops" too

Duct air likes to travel in the center lane which has the least friction, and, like the motorist, it is necessary to control it along the way. To obtain maximum control of the air flow in the duct and even air distribution in the conditioned area, use Anemostat Accessories in the duct and Anemostat Air Diffusers in the ceilings or walls.

**TYPE SD SPLITTER DAMPER** slices off proper quantity of supply air and turns it into take-off.

**TYPE ED EQUALIZING DEFLECTOR** straightens and equalizes air flow in take-off.

**TYPE DE RADIAL DEFLECTOR** distributes air evenly over expanding cone aspirating diffusers.

**ANEMOSTAT®**

**DRAFTLESS Aspirating AIR DIFFUSERS**

ANEMOSTAT CORPORATION OF AMERICA

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REPRESENTATIVES IN PRINCIPAL CITIES

"No Air Conditioning System Is Better Than Its Air Distribution"

Selection Manual 40 contains complete data on these and other Anemostat Accessories.
New Case fixtures like these do more than "sell themselves" to the new generation that demands extra comfort and convenience. They sell the contractor who suggests and installs them. Generous with basin area yet compact overall, the 22"x18" Whitney is ideal for larger 2-lavatory bathrooms as well as small singles where counter space must be held down. The slanting control panel has modern bathroom style appeal. With pre-fitted stainless metal rim it is available in the full Case range of 26 colors, and white.

In matching colors and white, the Case One-Piece Water Closet is now available with elongated or regular bowl. This is the only water closet that enables you to offer positive protection from bowl overflow due to accident or carelessness. In remodeling and new installation, the low level integral tank affords unequalled flexibility of placement.

Construction, fittings, and trim are Case quality throughout.

For your nearest Case Distributor, look under "Case" in your Classified Telephone Directory... or write W. A. Case & Son Mfg. Co., 33 Main Street, Buffalo 3, N. Y. Founded 1853.
Create exciting window effects without special millwork costs!

Pella Casements are available with vertical and horizontal muntins, horizontal muntins only as shown above, or without muntins.

This French-type Pella Window provides generous sash opening. Ideal for kitchens and bedrooms. Glass openings up to 60" high.

CREATE THESE Pella FEATURES

ROLScreens — Pella Casements are equipped with inconspicuous, convenient Rolscreens that roll up and down like window shades. Rolscreens eliminate putting up, taking down, painting, repairing, and storage of screens.

DUAL GLAZING AND WEATHER STRIPPING — All Pella Casements are dual glazed to insulate against winter cold and summer heat... weather stripped to eliminate drafts. Thermopane or Twindow Insulating Glass is also available in standard sizes to fit most Pella windows.

WOOD FOR BEAUTY — STEEL FOR STRENGTH — Frames consist of welded steel inner frame lined with wood. Exclusive Pella feature.

USE MORE GLASS — YET SAVE ON HEAT — You can do it thanks to Pella's extremely low air infiltration factor. Ask Pella representative to show you how Pella excels over other windows in this respect.

Pella REPRESENTATIVES IN EMPIRE STATE

BUFFALO
A. O. STILWELL CO., INC.
268 Sheridan Avenue
Phone: Taylor 6836

ROCHESTER
THE MAURER CO., INC.
31 Richmond Street
Phone: Hamilton 0030

SYRACUSE
PELLA PRODUCTS CO.
116 South Salina Street
Phone: 2-8828

VALLEY STREAM, L. I.
ROLSCREEN COMPANY
127 West Merrick Road
Phone: Valley Stream 5-8484

ANCHOR WINDOW — Pella Windows are completely assembled when they arrive. Just set the unit in the opening and anchor it firmly at the head and sill. Flange screws are furnished for this purpose.

ATTACH OUTSIDE FINS — Next, attach metal fins at jambs. The grooved edge of the fin fits over the edge of the steel frame. The flat surface of the fin is nailed to the sheathing. Exterior trim can now be applied.

ATTACH INSIDE FINS — To complete the installation, apply the inside metal fins at jambs. Fins fit under the lip of the steel frame and are nailed to the studding. This provides an additional weatherseal and helps to position the window in the opening.

Pella CASEMENT WINDOWS, manufactured by ROLSCREEN COMPANY, PELLA, IOWA
Youngstown Kitchens — best-known among steel kitchens by 5 to 1 — best-known for the latest in kitchen advances — insure any home against early obsolescence. Mullins Manufacturing Corporation, world’s largest makers of steel kitchens and pioneers in the modern kitchen field, knows that this great public acceptance stems in great part from the fact that many leading architects specify Youngstown Kitchens exclusively. Many architects prefer Youngstown Kitchens because they are readily adaptable to any floor plan.

Durable, gleaming Youngstown Kitchens give any house greater appeal for faster sales. Specify Youngstown Kitchens and profit from these advantages:

- Delivery timed to job site.
- Every unit complete, ready to install.
- Easy installation saves time, money.
- Arrangements to fit any space and cost requirements.
Across the continent, fuel saving and comfort are assured throughout the fine systems of "America-saving" schools because of Johnson Automatic Temperature Control. The typical modern schools shown above present widely different problems. Each is located in a different climatic region, and each has a different type of heating and ventilating system. But Johnson Control, adaptable, efficient, time-tested, is at work with equal success in each building.

In Colorado Springs, at the timber line, heating is accomplished by radiant panels. Johnson Master Outdoor Thermostats work with Johnson Submaster Thermostats to eliminate thermal lag by anticipating the heating requirements and varying the temperature of the water supplied to the coils in the floor. A Johnson Thermostat in each room modulates a Johnson 3-way Mixing Valve on the corresponding radiant heating coils, and the ventilating systems also are controlled by Johnson apparatus.

In the Borough of Queens, at New York's tidewater level, the radiators in the 'split' (combination) system of heating and ventilating are controlled by Johnson Individual Room Thermostats, while the Johnson-controlled ventilating systems insure proper distribution of air to six separate sections of the building. The heating and ventilating systems also are zoned for remote operation from a central Johnson switchboard, so that certain sections of the building may be heated at odd hours.

In the Trade School at Boys Town, on the prairie, Johnson Individual Room Control maintains exactly the right temperature in each room through Johnson Proper Sequence Control of a Johnson Damper Operator and Valve in each unit ventilator and a Valve on each radiator.

In every part of the country, for every type of heating and ventilating installation, a system of Johnson Control, planned and installed for the particular project, provides the answer. Ask a nearby Johnson engineer to discuss your problems. JOHNSON SERVICE COMPANY, Milwaukee 2, Wisconsin. Direct Branch Offices in Principal Cities.
For more than 40 years "windows by General Bronze" has been synonymous with fine quality windows.

During these many years we have worked closely with hundreds of leading architectural firms on both large and small building projects—schools, hospitals, apartments and monumental buildings.

From this extensive experience, we have learned what features architects want in windows, spandrels, curtain walls and architectural metal work—what kind of help architects appreciate most—what makes their job run easier and smoother.

Because of our unequalled facilities and our vast experience, we are well qualified to serve you, especially when your requirements are great, difficult or unusual. We will be glad to discuss your problems with you at any time. Our catalogs are filed in Sweet's.
HERE'S how to speed up many jobs and keep costs down—specify Gold Bond Acoustical Plaster and let your contractor sound-condition and decorate the ceilings in one easy continuous operation. Gold Bond Acoustical Plaster is:

**ECONOMICAL.** Provides incombustible acoustical treatment at low cost.

**ARCHITECTURALLY FLEXIBLE.** May be applied to flat or curved surfaces. Also to existing ceilings after applications of an asphalt emulsion bonding coat.

**EASY TO APPLY.** Gold Bond Acoustical Plaster can be applied by any journeyman plasterer to the regular base coat of gypsum plaster. It's light on the hawk, extremely easy to work.

**ATTRACTIVE.** Gives the beauty of plaster—a smooth, unbroken surface that may be troweled or floated. Furnished in five colors...oyster white, ivory, cream, buff and caenstone.

**FIRE RESISTANT.** Basically a mineral product, Gold Bond Acoustical Plaster is incombustible.

**NON-GLARE LIGHT REFLECTION.** Oyster white...70%.

**NOISE REDUCTION.** .55 to .60 floated or troweled to finish.

**PAINTABILITY.** Tests with six coats sprayed-on paint showed no loss in acoustical efficiency.

Gold Bond Acoustical Plaster Technical Folder, A.I.A. 39-B-1 supplied without charge upon request.

**NATIONAL GYPSUM COMPANY • BUFFALO 2, N. Y.**


You'll build or remodel better with Gold Bond
LAKE PLACID

Hundreds of members of the New York State Association of Architects will be discovering a thrilling and breath-taking spectacle during their 1952 Convention. Each mile through the Adirondacks leads the convention guest deeper and deeper into a land of enchantment. Autumn at world-famous Lake Placid is truly a magic season.

The convention dates, Oct. 2, 3, and 4, will be at the height of the famous "Month of the Flaming Leaves" season when Mother Nature lays out her most beautiful carpet of scenic splendor. Here is truly a landscape to challenge the talents of the most gifted artists.

Nowhere in the world can one find such a brilliance of foliage in an entirely natural surrounding as the leaves burst into flame in Lake Placid during the fall months.

A perfect tonic for tired minds and bodies is afforded by the crisp autumn sunshine, the sparkling mountain air and the cool, silent nights.

Nature's endowment to the Northwoods is at its richest during the fall season. In the heart of the beautiful Adirondack Mountains, in Lake Placid, the mountains, valleys, streams and lakes are set ablaze by the fall colors. The balsam, spruce and pine trees form a rich green backdrop to accentuate the splashes of color added by changing leaves of many other types of trees. There is the yellow, red and purple of the maples, blending harmoniously with the brilliant gold of the poplars. A soothing gold cape shrouds the gleaming white bark of the birch trees. The sumac adds just that right dash of flaming red to the sparkling scenic pattern.

For a lofty view of this fall wonderland, the Architect need only climb into his automobile and ascend to the mile high summit of Whiteface Memorial Highway, a masterpiece of modern highway engineering. This is not a thrill-seeker's pastime. The ride up the magnificent motor highway is an easy eight mile climb with a leisurely and enjoyable ascent, with views of breath-taking beauty at every turn.

Many tourists climb Whiteface Mountain several times a season for the view is ever changing. It changes with varying conditions of sun, cloud, atmosphere and season. There are shifting cloud formations overhead—brilliant shafts of sunlight . . . distant peaks . . . gleaming ribbons of rivers . . . hundreds of mountain peaks piercing the distant horizon . . . more than a hundred lakes, large and small . . . lakes turning to sheets of gold as they catch and hold the last rays of the setting sun, sinking slowly, like a giant ball of fire.

(Continued on Page 24.)
You Can Do More With These Two

The use of pre-cast concrete floor and roof materials in all types of construction is growing by leaps and bounds. FLEXICORE and STRESTCRETE slabs are being used more and more.

FLEXICORE pre-cast concrete floor and roof slabs are an economical building material. They are long span...resulting in a saving in the amount of structural steel required.

Easily installed in any kind of weather...cold, snow, rain...they are of particular advantage in bad weather construction. FLEXICORE slabs are transferred directly from the truck that delivers them from the plant to the job, thus saving a great deal of valuable time.

Large areas can be erected in a single day without making use of any formwork...and expensive pouring of concrete is eliminated.

An immediate working deck is provided for other installations. Hollow-core construction facilitates installation of all utilities.

FLEXICORE also provides a finished ceiling, requiring no plaster...another big saving.

FLEXICORE slabs will not deteriorate when used over crawl space where moisture is a problem...and extremely important...FLEXICORE slabs are fire-safe.

OTHER ANCHOR PRODUCTS
Celocrete, Cinder and Concrete Blocks.
Precast Lintels and Sills.
Colorless Water Repellent (Silicone Base).

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Dur-O-Wal steel reinforcing for masonry walls.
Medusa Portland Cement Paint, for concrete wall surfaces.
Medusa Floor Coating, for concrete floors.
Pre-Cast Concrete Floor and Roof Slab Systems
every day in the construction of schools, hospitals, public buildings, office structures, warehouses, industrial plants, and residences.

STRESTCRETE

River Road School, Welland, Ont. Architect: Arthur B. Scott, Welland, Ont. Twelve-inch Strestcrete supplied by Anchor Concrete Products, Inc., Buffalo, N. Y. Note ease of transferring Strestcrete from truck directly to job.

Ideal for all types of construction is STRESTCRETE pre-cast concrete floor and roof slabs, which, because of their long span advantages, require a minimum amount of structural steel.

Speedily installed in all types of weather, providing another savings in job time, STRESTCRETE provides an excellent base for plaster or acoustical tile. STRESTCRETE eliminates the need for expensive forming or pouring of concrete.

STRESTCRETE is installed in 4' 0" wide panels in length according to span and load conditions.

STRESTCRETE is available in a range of depths from 3" to 12" for clear spans up to 30' 0". Anchored to structural steel by welding it provides well anchored rigid construction.

STRESTCRETE will not deteriorate; is ideal for use where moisture is a problem; and because of its hollow-core construction facilitates the installation of utilities. It, too, is firesafe.

Both FLEXICORE and STRESTCRETE provide the basic duct work for economical WARM AIR RADIANT PANEL HEATING.

ANCHOR CONCRETE PRODUCTS INC.
WABASH AVE., AT 2450 WILLIAM ST.
BUFFALO 6, N. Y.
OFFICERS AND DIRECTORS

1952

NEW YORK STATE ASSOCIATION OF ARCHITECTS

Donald Q. Faragher

G. Morton Wolfe  Adolph Goldberg  Harry M. Prince  Maxwell A. Cantor

John W. Briggs  Matthew W. Del Gaudio  James Wm. Kidney  C. Stotts Barrows
Chairman of the Board's office, Sterling Advertising Agency, New York City. This room is done in Natural Walnut Weldwood Plywood. Architect: Louis Hotkoff.

You'll easily get a Client's OK on Beautiful Weldwood® Plywood!

Sterling Advertising Agency of New York City finds that Weldwood Plywood paneling is good advertising and good public relations.

It gives their offices a really professional look... an atmosphere that reflects trustworthy experience.

But in addition to the beauty and quality of these rich-looking panels, Weldwood Plywood also has its practical side!

In the first place, it is reasonable in cost. It is installed quickly and easily... goes right over existing walls. Even over cracked, unsightly plaster.

It is extremely durable. (Interior Weldwood Plywood is guaranteed for the life of the building.)

And it eliminates all the expense of future redecorating.

THAT'S real economy!

Weldwood Plywood is available in a wide variety of fine woods... domestic and imported. Genuine Walnut... Knotty Pine... Oak... Korina®... Maple... Birch... Gum... Mahogany.

Make it a point to consider beautiful, economical Weldwood Plywood for every one of your redecorating and new building contracts.

WELDWOOD® Plywood
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and U. S.-MENGEL PLYWOODS, INC., Louisville 1, Ky.
Branches in Principal Cities Distributing Units in Chief Trading Areas Dealers Everywhere
The safety and comfort of patients and staff in the new 1000-bed Veterans Hospital at Fort Hamilton, Brooklyn, N.Y. are guarded continuously by four Titusville 3-drum TDL Water Tube Boilers, of 390 normal horsepower each. Chosen for work-horse reliability the year around, these units take care of all heating needs of main buildings and laundry. Write for Bulletin No. B-3200A.
Largest Stocks of Electrical Supplies

The Buffalo Electric Company carries Buffalo's largest wholesale stocks of electrical apparatus and supplies. We offer a vast variety of electrical products indispensable to business and industry. Likewise, we maintain a large trained staff of electrical engineering, construction and repair men. If you need electrical apparatus, electric lighting, construction or repair work of any kind, call us for quick, efficient and economical service.

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When buying a boiler today

Would you settle for 3 lives?

If history means anything, the H. B. Smith Boiler you install today will be on the job when the year 2000 is born! That's because H. B. Smith Boilers are made of cast iron - universally acknowledged to have the longest life in boiler service. Furthermore, H. B. Smith Boilers are made of the highest quality cast iron, with self-cleaning vertical water tube construction that promotes top efficiency with least maintenance.

It's no secret that most conventional boilers used in larger buildings have a life expectancy of about 20 years. Whereas thousands of H. B. Smith Cast Iron Boilers have been in constant service for 40, 50 - yes, even for 60 years, without ever a major repair.

Settle on an H. B. Smith Cast Iron Boiler today, and you're all settled for tomorrow.

H. B. Smith CAST IRON BOILERS
A CENTURY IN '53
The H. B. Smith Company, Inc., Westfield, Massachusetts
RODDISCRAFT Flush Doors are preferred by architects nearly 2 to 1 over the second-choice door, according to recent surveys.

Such leadership imposes real responsibility—and an obligation to produce quality doors that will merit the continued preference of members of the profession.

Roddiscraft has put quality first for more than sixty years. This policy which has earned the preference of architects today will continue to govern our operations tomorrow.
where ANACONDA Bronze contributes enduring beauty:

Temple in Illinois


THIS IMPRESSIVE TEMPLE was started in 1920 by members of the Bahá’í faith to express Bahá’í teachings in progressive revelation and spiritual unity of East and West.

In the doors and windows of each of the nine sides of this Temple, the beauty of ANACONDA Architectural Bronze will outlast generations of worshippers. For no other metal surpasses bronze for monumental endurance, warmth or grace of effect. It is the oldest metal known to man—traditional in centuries of noteworthy architecture. Bronze creates the impression of stability and dignity so desirable in public, private and commercial buildings.
Marble veneer treatment for the main wall, with heavier construction in the parapet are here combined for an effect that is both substantial and economical. Polished Vermont Verde Antique provides a base course of pleasing contrast with main wall; it also is resistant to discoloration from the sidewalk. The beautiful veining of Standard White Danby gives distinction to the entire front of the building. In the fluted door trim contrast is afforded by the use of Westland Cippolino Marble.

To emphasize detail of the eagle ornament, an overlay of gold leaf was applied. Almost the same effect in the parapet is provided by natural shadows in the carved ornament.

COLOR • CHARACTER • PERMANENCE • LOW MAINTENANCE
GENERAL INFORMATION
The New York State School Boards Association will hold its annual convention in Syracuse on October 26, 27 and 28, 1952. It will be attended by school administrators and other educational leaders who are seeking to gain sound ideas for improving the education programs in their home towns and communities. In cooperation with these aims, the New York State Association of Architects, as the representative organization of registered Architects in New York State, has been invited to present an exhibit of architectural material illustrating School buildings completed or in process of construction.

A central and special feature of the exhibit will be a panel prepared for such purpose by the Public Relations Committee of the NYSAA pointing out the details of professional service performed by the Architect.

ELIGIBILITY
All entries shall be submitted by registered architects having their principal office in New York State. Eligibility is limited to members of the NYSAA. Entries shall depict buildings, for any age group below college level.

ALL entries shall be on structure completed or on which contracts for construction have been awarded.

No advertising or mentions of awards shall be attached to entries.

CLOSING DATE AND SHIPPING INSTRUCTIONS
Entries must be shipped "Express Prepaid" to: Carl W. Clark, c/o Railway Express, Syracuse, New York, and shall be received by the Committee on or before October 23, 1952. If you desire space, fill out the attached form and mail promptly, enclosing your check in the required amount. Applications will be accepted in the order of receipt up to the limit of space. If your application is received after all space has been allotted, you will be notified and your check returned to you promptly.

MANDATORY RULES FOR SUBMISSION
1. Entrance Fee—Each entry shall be accompanied by a fee of $15.00 per 30"x40" mount. ($30.00 for 40" x60" mount).
2. Mounts—All entries shall be on rigid single mounts 30"x40" or double size mounts 40"x60". Each building shall be displayed on not more than two single mounts or one double mount. There shall be no models.
3. Plans—Site plan and principal floor plans shall be shown legibly and accurately at scale, with numeri-cal or graphic indication of scale. The composition shall be at the discretion of the entrant.
4. Four (4) mounts permitted an entrant.

DESCRIPTION DATA
Type and location of projects as well as name and address of architect shall identify each exhibit.

PHOTOGRAPHS
a. Exterior—At least one photograph (preferably two) showing principal elevation and general character of the exterior.
b. Interior—At least one photograph. Photographs shall be monotone.

PHOTOGRAPHIC COPIES of renderings may be submitted for photographs where eligible projects have not been completed.

INSURANCE
Each entrant must take care of his own insurance and liability, the Committee will not.

ENTRY RETURN
Entries will be returned at the close of the Convention, Express Collect.

THE COMMITTEE
FRANKLIN F. FOET
FRANK C. DELLE CISE
HELEN C. GILLESPIE
CARL W. CLARK, Chairman

ENTRY BLANK FOR SCHOOL EXHIBITS
Syracuse War Memorial Auditorium, Syracuse, N. Y.
ANNUAL NYSAA CONVENTION
October 26, 27, 28, 1952

Firm
Address
Space desired: Single Mounts @ $15.00
Double Mounts @ $30.00
Remittance herewith $
Payable to: Max Cantor, Treasurer, NYSAA
Detach and mail with check to:
Carl W. Clark
P. O. Box 900
Syracuse, N. Y.
Auditorium of Rush-Henrietta Central School, Henrietta, New York, equipped with 750 Full-Upholstered Bodiform Chairs.
Architect: Benedict M. Ade, of Ade & Todd, Rochester, N. Y.


Time-saving school-planning data

Now available to New York State Architects

You are invited to conserve your time and energy by freely consulting American Seating Company planning service for data on many kinds of seating equipment.

There is an American Seating representative near you who can supply the results of comprehensive research on Classroom Furniture, Auditorium Chairs, Gymnasium, Playground and Laboratory Equipment, Library Furniture, Bleachers and Stadium Seating, and Chalkboard and Corkboard.

This time-saving school-planning service is offered freely, without obligation.

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WORLD'S LEADER IN PUBLIC SEATING

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Grand Rapids 2, Michigan

MANUFACTURERS OF SCHOOL, AUDITORIUM, CHURCH, THEATRE, STADIUM, TRANSPORTATION SEATING, AND FOLDING CHAIRS
THE PRESIDENT'S MESSAGE

THE Convention of the New York State Architects Association will be in Lake Placid at a time when there is promise of one of nature's greatest displays of color. This town which boasts of no native son architect has invited us to be the guests of its Chamber of Commerce and will turn the civic arena into a convention hall for all activities of convention business, commercial exhibits and an architectural exhibit of the members' work. The Association has drawn its working committees from the Central New York Chapter and the Eastern New York Chapter and its chairman, Bill Distin, from nearby Saranac Lake. It will become apparent to the membership that Lake Placid needs no native son architect as Bill Distin has already been adopted by the Community.

It was my privilege to attend two meetings at the Lake Placid Club with your convention committee, one held in May and the other held the 16th of August at which time all plans were reported by the Chairman and approved by the Advisory committee. Egbert Bagg, Program Chairman, reported a completed roster of speaking talent with enough entertainment time included in the program to insure a pleasant respite from our daily practice.

This year's convention will include an interesting seminar which will develop for the membership various methods of estimating costs and show the relation of accurate estimates to a successful practice.

The State Building Code Commission will be represented by all three architect members and George Bain Cummings, Vice-Chairman, will report on their part in the stewardship of this important document with which we will all be associated in work throughout the state. This report will be made from the convention floor on Friday, October 3rd. The activity of all committees will be reported on action directed by your Board of Directors. The Committee Chairman will present the findings of committees and make recommendations for the convention's consideration.

I recommend to all members a review of the full program printed herein including the coordinated ladies' program.

Lake Placid is ours October second through the fourth. I hope you will be there to enjoy it with me.

Donald Q. Faragher

EMPIRE STATE ARCHITECT
How would you solve this ROOF PROBLEM?

58,000 SQ. FT. APPROX.
PROTECTS VALUABLE MERCHANDISE
FLAT—FIREPROOF—
WET HEAVY SNOWS—

SOLVED:

by approximately 52,000 sq. ft. of WEATHERWOOD® PYROFILL® Roof Deck and 6,200 sq. ft. of SHEETROCK® PYROFILL Roof Deck poured by J. R. Eurell Company of Lansdowne, Pa. The roof (left) is for the new Sears, Roebuck and Co. building at Vineland, N. J. The Ballinger Company of Philadelphia served as Architects and Engineers. Irwin & Leighton of Philadelphia were General Contractors.

Do you have a pitched roof—curved roof—flat roof problem? Look to U.S.G. for the simple solution. For the U.S.G. line of dependable roof decks includes three completely different types:

1. Poured-in-place gypsum,
2. Precast gypsum; 3. Steel decks. One of the three is sure to solve your problem. See Sweet's Catalogs for specifications, or contact your U.S.G. representative.

United States Gypsum

For Building • For Industry
Gypsum • Roof Decks • Insulation • Hardboards • Expanded Metal • Sound Conditioning

The Greatest Name In Building
BUILDING PRODUCTS SHOW

A building products show will be one of the features of the New York State Architects' Convention.

It is anticipated that upwards of 60 different exhibits will be provided by manufacturing and sales concerns, as well as building contractors, for the building products show, which will be held on the main floor of the Olympic Arena.

In addition to the commercial exhibits, a display of current architectural projects, either completed or underway by the architects of New York State, will be exhibited on the main floor of the Arena. This display will also be open to public inspection. There will be no admission charge for either of the two exhibits.

Although the commercial display will cover the entire building industry field, the home builder will find many displays of special interest, in addition to views of equipment and facilities for hospitals, schools and commercial use.

EMPIRE STATE ARCHITECT
behind hundreds of silhouetted peaks which bow in homage to majestic Whiteface, the Sentinel of the North. Small wonder that this attraction has been acclaimed as the "Supreme Scenic Thrill of the North American Continent."

Few indeed will be those who pass by Santa's Workshop at the North Pole, enroute to the top of Whiteface Mountain. Hundreds of thousands of tourists and conventioneers have visited this enchanting little village on Whiteface Mountain Highway, two miles from the base. The novel village houses Santa's Workshop, his cottage, toy shops, the Shrine of St. Nick, Mother Hubbard's shop and many other brightly colored buildings. Reindeer, goats, sheep, llama, ducks, rabbits, peacocks and many varieties of woodland animals roam through the village to bid for attention of the visitors. Of' Saint Nick himself is on hand to extend a jolly welcome. A real ice-coated North Pole in the heart of the village received the skeptical touch of most visitors. It is the only attraction of its kind in the world. It affords a read treat for kids from 1 to 100.

An indelible impression is left with those who enjoy a boat trip around Lake Placid, largest lake of its altitude east of the Rockies Mountains. Either speedboats or the new and modern passenger vessel "Doris", licensed to carry over 100 people, make regular trips around the 16 mile course. Majestic Whiteface, rising a mile high abruptly from Lake Placid, Marcy, Col- den, Mt. Whitney, McIntyre and other famous Adiron- dock mountain peaks, cloaked in their resplendent autumn fashions, come into view. Nowhere in the world is there a boat trip to compare to this . . . a delightful hour and a quarter of ever changing panorama of mountain scenery. The beautiful camps of famous personalities along the shores and on the islands of Lake Placid afford another thrill for the Architects and their families.

On all sides of Lake Placid is a great stretch of woods, forest and stream, rolling away to lose itself among the mighty peaks which form the wall of eternal rock. The rock with which nature has endowed this garden spot is the oldest known to scientists. Mt. Marcy, highest in New York State, is awaiting climbing enthusiasts. Reaching an altitude of 5,344 feet, it is in the heart of the most rugged and unspoiled region in the Adirondacks. Near the summit of Mt. Marcy is Lake Tear-of-the-Clouds, tiny pond source of the mighty Hudson, whence the late Colonel Theodore Roosevelt started on his famous midnight ride upon hearing of the assassination of William McKinley. Rugged passes, rearing cascades, and glistening lakes surprise the hiker at every turn of the trail. There are excellent trails to the summits of Mounts Whiteface, Marcy, Colden, Algonquin, McIntyre, Jo, Saddleback, St. Armand, McKenzie, Whitney and scores of lesser peaks. Cobble and Signal Hills furnish delightful close-up, comprehensive views of the startling beauty of Lake Placid and Mirror Lake.

Colorful fall furnishes some of the best times for horseback riding enthusiasts. More than 40 miles of trails, rich in scenic beauty, lead over a diversified terrain, stretching through great areas of evergreen and across rivers and streams. Each is studded with a fresh panorama of woody mountain views.

LAKE PLACID, NEW YORK

(Continued)
The seven challenging golf courses in the Lake Placid area with their emerald fairways and greens ringed in by autumn foliage, form a striking and long-to-be-remembered picture. It’s a wonderful time, too, for other sports such as canoeing, boating, archery, and bicycling. During the early part of the season there is still swimming, water-skiing, and other aquatic sports.

The fall has an appeal for fishermen, too, so don’t forget to pack that fishing equipment. The season is still open during September for bass, speckled, brown, rainbow and lake trout, Great Northern and Wall-Eyed Pike. The season continues into October for some of these species. The famous AuSable River, Lake Placid and Mirror Lake, plus other streams and lakes afford wonderful fishing grounds.

During the latter part of October, Lake Placid begins welcoming the hunters. During the open season game includes grouse and pheasant, woodcock, ducks, bears, deer and rabbits.

The 1952 Convention of the New York State Association of Architects at Lake Placid is truly one that you can’t afford to miss.
PROGRAM
1952 CONVENTION

WEDNESDAY, OCTOBER 1st, 1952

AFTERNOON

3:00 P.M. - 9:00 P.M.
Registration at Arena

EVENING
No formal dinner. Get-together for members arriving Wednesday at
Lake Placid Club.
Moving Pictures
Bridge

THURSDAY, OCTOBER 2nd, 1952

MORNING

9:00 A.M. - 5:00 P.M.
Registration — Lobby at Olympic Arena
All delegates must register by this date.

9:15 A.M. Business Session — Assembly Room — Second Floor
President Donald Q. Faragher presiding.
Reports: President
Board
Treasurer
Secretary
Nominating Committee

Announcements

9:00 A.M. Judging of Architectural Exhibits — Main Floor.
Thomas T. Crenshaw, Chairman of Exhibit
Ralph Winslow, Chairman Awards and Honors

10:00 A.M. Opening of Commercial Exhibits — Main Floor.
12:00 Noon Opening of Architectural Exhibits.

AFTERNOON

12:45 P.M. Luncheon — Lake Placid Club (To include Ladies).
Toastmaster: Elton J. Morrow, President Eastern New York Chapter, A.I.A.
Welcome: Elton J. Morrow
Response: President Donald Q. Faragher
Greetings: Mayor of Lake Placid
Greetings from Canada: Earle L. Sheppard, President, Ontario Association
of Architects.
Announcements

5:30 P.M. President's Reception — Lake Placid Club Golf House

EVENING

7:30 P.M. Buffet Dinner — Lake Placid
Dancing.

FRIDAY, OCTOBER 3rd, 1952

MORNING

9:00 A.M. - 5:00 P.M.
Registration — Lobby at Olympic Arena.

9:00 A.M. Architectural Exhibits — Main Floor
9:00 A.M. Commercial Exhibits — Main Floor
9:15 A.M. Business Session — President Donald Q. Faragher presiding.
Reports
Election of Officers
Announcements
AFTERNOON

12:30 P.M. LUNCHEON — LAKE PLACID CLUB
   Toastmaster: Cyril T. Tucker, Secretary Central New York Chapter
   Speaker: — BUILDING COSTS by
2:00 P.M. SEMINAR: Subject — ESTIMATING BUILDING COSTS
5:30 P.M. COCKTAILS at Exhibits in Olympic Arena

EVENING

7:30 P.M. ANNUAL DINNER at Lake Placid Club, President Donald Q. Earagher presiding.
   Invocation: Rev. Sidney Thomas Ruck, Rector St. Eustace Church,
   Lake Placid, New York.
   Star Spangled Banner: Led by Mrs. Harry Price
   Toastmaster: Roger Allen, A.I.A., practicing Architect, newspaper columnist
   and lecturer.
   Address by Toastmaster: PHILOSOPHY FOR THE ARCHITECT
   Presentation of Awards, Ralph Winslow, F.A.I.A., Chairman Awards and
   Honors Committee.
   Speaker: Mr. Edward N. Littlefield, Supt. of Forest Management, N. Y. S.
   Department of Conservation.
   Announcements

SATURDAY, OCTOBER 4th, 1952

MORNING

9:15 A.M. FINAL BUSINESS SESSION at Olympic Arena, Donald Q. Faragher, presiding.
   Reports
   Report of Resolutions Committee
   Resolutions
   Installation of Officers
   Announcements
   CONVENTION ADJOURNED.
   No formal luncheon.

SIDE TRIPS
Trips to Whiteface Mountain and North Pole, and Cruise of Lake Placid may be
arranged. Information will be furnished at Registration Desk.

Women's Program

WEDNESDAY, OCTOBER 1st, 1952

EVENING
GET-TOGETHER for those arriving Wednesday.
   Moving Pictures
   Bridge

THURSDAY, OCTOBER 2nd, 1952

AFTERNOON

12:45 P.M. LUNCHEON with members at Lake Placid Club.
5:30 P.M. PRESIDENT'S RECEPTION at Lake Placid Club Golf House.

EVENING
BUFFET DINNER — Lake Placid Club
7:30 P.M. Dancing

FRIDAY, OCTOBER 3rd, 1952

AFTERNOON

12:45 P.M. LUNCHEON — Mirror Lake Inn
   Cruise of Lake Placid (if fair) or bridge (prizes). Please supply own cards.
5:30 P.M. COCKTAILS at Exhibits—Arena

EVENING
7:30 P.M. ANNUAL DINNER — Lake Placid Club

EMPIRE STATE ARCHITECT
Models . . . architectural, industrial, display and precision . . . are the business of H. C. Kline Associates, the fast growing organization at 42 Virginia Place, in Buffalo. One of the few model shops in the country equipped and staffed to work in almost any scale, and almost any material. Today's output may be a 3' x 7' architectural model, while yesterday's was a wind tunnel test section in steel weighing a few ounces.

Mahogany plumbing fixtures? Yes. Several local industrial designers have made use of the facilities of the Associates in securing design mock-ups. Not only plumbing fixtures, but clock radios, television bezels, and percolators — they look convincing (which is what the designer hopes they will do) even if they don't operate.

The boat models started several years ago when Kline did a cruiser for his own amusement. An admiring Boniface placed it over his bar, with the result that numerous local Commodores can now, during non-sailing months, admire their crafts from a seat before the fire. Most of these models have a hand-fashioned pine hull, with mahogany cabins and decks, and chrome plated hardware.

One of the unique products of the firm is industrial planning models in 1/4" scale, such as were used in the recent rapid conversion of Kaiser's Willow Run plant. Exact in size, and sufficiently detailed to be easily recognized, these models, when located on a grid by the plant lay-out department, form a master lay-out easily followed by the millwrights. The usual procedure is to build such models from photographs and scaled drawings, which are done in the plant by a crew of three from the Associates.
Lever House has been much publicized as the House of Glass, but the model of the Commodore Perry Extension has it beat — the buildings in the model were made from a solid bar of Lucite formed to the plan of the central unit, and chopped off in \\nsections. The resultant buildings, with the brickwork painted on, are capable of reflecting the setting sun in a most realistic manner.

In addition to appearance models, the Associates are equipped to supply precisely machined parts and assemblies for experimental purposes. The principal customers for this type of work are the aircraft industry and research laboratories. Tolerances of ±0.001 are the rule in this field.

**Materials? Their name is legion.** One of the most recent purchases was 100 obsolete watch movements at 11c each. Parts of these movements will soon be hand wheels and gears on industrial machinery. Birch, mahogany, Lucite — any of them may appear in close juxtaposition to vein pins from the notions counter, while steel may be to exact Army specifications.

The firm has built airplane models for Bell Aircraft Corporation, architectural models for regional architects, wind-tunnel models for Wright Aeronautical, and is currently at work on a mechanized parking lot and a full sized pilot model of an industrial machine. Behind all this activity are the two associates — Harry C. Kline, Jr., industrial designer, responsible for tools, piano, phonographs, and toys — who turned model maker to meet an existing demand, and Stuart D. Morrison Steel Products Co.

Photo by Malt, Greenberg, and Ness

James W. Kidney and Associates, Architects

Detailed models, with definite color indications, go far toward determining the final equipment and decoration of rooms. This model, in a traveling case, was used in connection with the current School 38 project.

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(Continued on Page 35.)

EMPIRE STATE ARCHITECT
A No. 11-83 Electro-Cell Precipitator with hinged ionizer opened and a few plate cells removed.

A No. 4S-3 Electro-PL electronic air filter of 12,000 cfm capacity—in straight bank arrangement.

A No. 7-84 Electro-Matic Precipitator with end drive and power pack mounted on end plate of casing.

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PERFORMANCE CHARACTERISTICS OF AAF ELECTRONIC PRECIPITATORS

<table>
<thead>
<tr>
<th>Type</th>
<th>Efficiency-Velocity Ratio</th>
<th>Resistance-Velocity Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELECTRO-MATIC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automatic, self-cleaning, supply super-clean air</td>
<td>85% at 500 fpm</td>
<td>.12&quot; wg at 35 fpm</td>
</tr>
<tr>
<td></td>
<td>90% at 400 fpm</td>
<td>.20&quot; wg at 400 fpm</td>
</tr>
<tr>
<td>ELECTRO-CELL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Washable, plate-type with removable cells</td>
<td>85% at 400 fpm</td>
<td>.18&quot; wg at 333 fpm</td>
</tr>
<tr>
<td></td>
<td>90% at 333 fpm</td>
<td></td>
</tr>
<tr>
<td>ELECTRO-PL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-cost, dry-type, dual-purpose</td>
<td>60% at 35 fpm</td>
<td>(Initial Resistance of 6 ply Type S Airmat)</td>
</tr>
</tbody>
</table>

American Air Filter Company, Inc.
211 Central Avenue, Louisville 8, Ky.
American Air Filter of Canada, Ltd., Montreal, P. Q. • Pacific Division Offices, San Francisco, California
MOISTURE PENETRATION OF MASONRY WALLS

(A paper presented at a meeting of the Central New York Chapter, American Institute of Architects, at Cooperstown, N.Y., by Mr. Herbert Boerner.)

Introduction

Just as though you couldn’t get away from it all by coming here to Cooperstown, we’ve brought along a typical-type problem we all have to face at least once in practice. Reports, treatises, and client’s letters have been written about moisture penetration or its obvious results, for 25 years or more, but unfortunately it seems the corrective measures outnumber the preventive measures.

Prevention vs. Correction

Scope of our problem is hereby limited to above grade exterior masonry units such as brick, block, tile or stone, and finished on the interior with a material susceptible to damage from water or moisture. In such a wall we may prevent this damage, or we may attempt to correct it. It should be noted here that the terms “preventive” and “corrective” measures indicate the difference between (1) letting any moisture get into the wall at all . . . or if it does penetrate the outer face, from getting any farther . . . or, (2) realizing that we can’t stop it from getting into the wall, but at least doing something about protecting the interior finish.

Let us say that there are two main types of correction of the visible effects of moisture penetration — applied dampproofing and furring methods.

Cost of Dampproofing

In popular use today is the sprayed-on type of damp-proofing material, applied to the inside surface of the wall, which actually negates contact between moisture entering from the outside, and the plaster on the inside. Approximate cost figures on this material are 15c per square foot of masonry wall. A typical 10 classroom, one story school building, might conceivably contain 6,300 square feet of masonry wall to be moisture protected. This equals $945 in real money, an amount which, by using preventive measures, we are going to save for our client. In addition, recent investigation by one of the plaster manufacturers, shows that adhesion of this type of material to plaster, and even to masonry, has been defective.

Furring methods keep moisture away from interior finishes by providing an air space between masonry and finish. Cost figures on a typical metal furring system are 50c per square foot, including lath.

Using the same school building example, the furring system (which also necessitates metal lath for plaster, incidentally), would cost $3,150, in real money. Saving this amount is a type of activity which causes clients to use our last names prefixed by “Mr.” in place of the usual adjectives.

Both of these methods keep the plaster dry, we’ll say . . . but neither prevent deterioration of the wall itself. And that type of trouble doesn’t show up until after the interior troubles begin to show.

Prevention

Let us now consider how the wall got wet in the first place. There are three possibilities:

Moisture penetration

1 through the material itself (mortar, brick)
2 through the joints between the materials, and
3 through the more obvious routes afforded by trim, copings and parapets.

You can read the results of tests which show negligible penetration of bricks, whether hard or soft, or mortars.

Of course, the primary cause for excessive penetration of moisture into the wall, is the presence of openings or cracks between materials . . . between the mortar and the brick . . . Let’s face it! And why do these openings exist? Because of poor bond . . . bond is the important factor, which in turn stresses importance of MATERIAL and WORKMANSHIP, since either one or both of these can destroy the bond, and result in poor masonry. If we wish to make sure it’s a leak-proof wall, we must be sure of both items.

Workmanship

The WORKMANSHIP item is involved with the methods of laying the mortar joint, the type of joint used, disturbance of work, ability of the mechanic, and the human element.

It is, of course, imperative that the finished joints between units are full joints, especially the vertical joints (since the horizontal joints will generally be tight enough as a result of the weight of the wall itself compressing them). Full joints, of course, require spreading of full beds of mortar, with light furrowing and straight, flush trimming. Deep furrowing can create channels in the bed, allowing water to readily travel along the wall. The mortar bed should not be spread too long, especially during warm weather, or when laying soft or absorbent brick, or laid too thin, since these things will cause the mortar to stiffen before the last brick is laid on it. The use of lime mortars diminishes this somewhat, since the mortar stays cool and plastic longer. Slushing unfilled joints after a course has been laid, a common habit, never really makes a good job of a poor one, and improperly filled cross joints in a header course can do even more damage in moisture penetration than the head joints of a stretcher course, since it allows water to penetrate 8" of wall rather than just 4". A full cross joint should be put on a header brick before laying it in the wall. Generally speaking, putting enough mortar on the brick, and in the joint, to insure a full joint when the bricks are shoved into place (to the extent that the mortar oozes out) will be the best thing the workman can do toward helping to prevent moisture penetration.

The part the type of joint finish plays in this drama is fairly obvious. Any tooled joint, where the tooling...
tends to press the mortar against the brick, and which does not leave a level space, or shelf, for water to collect on, will provide further assurance against moisture penetration. The "Weathered" or "Weatherstruck" joint, the concave joint, and the V-groove joint, are the good ones. The "Struck", "Raked" or "Stripped" joints are bad. Also undesirable is the flush or plain cut joint, which is usually left rough and loose by the trowel and begs the water to seep in.

And there are other things that happen, which may be attributed to workmanship:

When bricks are tapped down into place, especially in a heavy bed of mortar, the mortar hanging down pulls away from the top of the joint. When joints are cut fresh, cracks are often caused at the surface of the wall. They do not extend back very far but may create a problem. If the mortar in the bed joint is cut off with an upward stroke, the trowel frequently and similarly pulls the mortar away from the edge of the brick below and a crack is opened below the bed joint. In many cases the line is put up and tied with the aid of nails or line-pins. Setting these in partially set mortar creates a channel or hole at a diagonal slant. The mechanic attempts to fill the hole when the nail or pin is withdrawn by filling it with a small amount of mortar which seldom sticks; since it is a small amount, it dries before it bonds to the older mortar. Or the holes are small and either forgotten or not filled at all. One remedy for this situation is to completely cut out a cross joint and fill in a new joint later. Another is to use line blocks of which there are several types available. The presence of nail holes becomes a serious problem where we are already saddled with poorly filled bed or cross joints, and the hole conveniently leads to another inner void. Convenient for water that is.

If for any reason the brick is shifted in position after being set in the mortar, the bond will be broken, and usually an invisible hairline crack will appear between the mortar and the brick. Shifting or tapping the brick can definitely contribute to the leaky wall problem, and thereby reflects on the mechanic's ability.

Material

(Now) ... the MATERIAL item is one which has received a great deal of attention in the matter of research and investigation, and for purposes of this discussion, we will not get too involved with all the phases of mortar design and mortar properties.

For now let us say that too little is understood about the nature of Portland cement ... and what happens to a mortar consisting of this material, during alternate wetting and drying? From a graph it is easily discernible that the higher the ratio of lime in the mortar, the lower the volume change subsequent to hardening. Note then that the dense cement mortar, of high strength, has a low value in distribution and maintenance of bond, thereby actually resulting in weak masonry, and a wall which is easily accessible to entrance of water. Most patented masonry cement mortars fall into this class, since they are composed largely of Portland cement; although they also include a plasticizer and integral chemical waterproofing, they still do not assure maintenance of bond.

I should hesitate to state that present day masonry cements do not result in watertight masonry, but—most manufacturers: firstly, refused to tell us about their mortar ingredients, and secondly, refuse to put them to test, or at least to publish volume or bond test data. A recent attempt to get one company to submit their mortar to bond and other check tests has failed completely, indicating that they are unwilling to invest money to prove the (You should pardon the expression:) merit of their product.

Another manufacturer has made some investigations at the University of Michigan, but results have not been divulged.

You may have had occasion to note that many companies will gladly submit and claim strength of mortar in compression, but as we have seen, the high strength mortars have the best chance of failing in bond.

The researches of Palmer and Parsons have been corroborated by the findings of Drs. F. O. Ander egg, who used a completely practical approach and found the results to be the same. The experimental work upon which his conclusions were based, included more than 300 mason-built brick panels, as many brick beams, an experimental house and numerous laboratory tests.

American Structural Products Company tests on various mortars also proved that these theories and investigations were correct. Their specification states that only lime-Portland cement mortars shall be used in laying up block walls. Evidently satisfactory is the proportion of 2 volumes of lime, one of Portland cement, and 9 of sand.

Many masonry cement manufacturers will state their products have a lime content. This is factually true, but actually leaves us cold, since the lime they speak of is raw lime and not beneficial. Generally it is nothing more than pulverized raw limestone, which is certainly not a cementitious material and it is not much better than sand.

As for leakage through the points in washes and horizontal planes of stone trim, probably little need be said. Most often this is a flashing problem, and in the case of cast stone we are back at our graph of volume changes based on the use of Portland cement. It is almost impossible to keep tight joints in cast stone for this reason.

Parapets

Parapets with cap stonework are in the same class, causing no end of troubles. Some examples of this, which we know about, might be cited: At a public school building, there occurred water damage of interior plaster at the second floor level. The cast stone cornice coursing had been called regularly, with no correction of the defect. A closer examination of the situation revealed whether masonry or calked joints were used, a crack formed at that point. After the vertical joints in the wash were capped with copper, no further difficulties from moisture penetration were encountered.

A similar case in a bank building—where parapet walls were capped with limestone copings. Examination showed adequate calking, but conditions of walls below was so bad as to require replastering. After continuous flashing was placed under the coping, and after much of parapet wall had been relaid, there were no further complications. Of course, temperature changes can cause some troubles even in natural stone, but it should be evident that the use of Portland cement is a factor which can lead to moisture difficulties.

Cavity Walls

We have seen that as far as Materials are concerned, control and intelligent design are possible to achieve successful warranty against moisture penetration. But since a chain is no stronger than and so forth ... and since workmanship becomes such an important item (Continued on Page 68.)
Built with Hanley #824 Oyster-Grey medium-speck DURAMIC Brick, the monumental Chrysler Building East is one of the newest industrial edifices to appear in the modern American skyline.

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- Euclid High School, Euclid, Ohio Arch. Fulton, Kinsky & Dela Matte
- Congregational Church, San Diego, Calif. Arch. Walter C. See
- Alamo Stadium, San Antonio, Texas Arch. Phelps, Dewees, Simmons
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STORM SASH AND SCREEN COMBINATION

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Removable Wood Windows
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- You paint both sides of window indoors.
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Write Dept. 4 for Free Catalog Showing Complete Details and Rough Openings
MODELS (Continued)
King, ex scene-designer, who has spent most of the last ten years in the aircraft industry. So far, their background of experience has proved adequate to the demand, although they admit that anything can happen. With this in mind, they are gradually acquiring a small staff of specialists so that any problem that may arise in the future may find its answer within the organization.

Architects, plant layout departments, experimental engineers, and sales departments will find in H. C. KLINE ASSOCIATES an answer to many of their problems.

Photo by Malt, Greenberg, and Ness
Hal Malt, Designer
Most individuals, like groups, can understand a model more readily than a drawing. This model instigated several advantageous modifications in the original design.

Photo by Towne Studio
The construction of ¼ scale models of machines and equipment for plant lay-out forms a large part of the current activities of the organization.

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HEATING WITHOUT FUEL

By Malcom B. Moyer

For generations Men have wished for some means of heating without the need for fuel. Inventors and scientists have approached the problem from many angles. The efforts of two schools of thought are yielding results.

Getting heat directly from the Sun has successfully heated a home erected by Miss Maria Telkes, a professor in Massachusetts Institute of Technology. She followed the usual method of direct solar exposure through openings in her roof, but uses a chemical compound which solidifies at a rather high temperature. Just as melting of ice absorbs a large quantity of heat without temperature change so melting this chemical salt absorbs and stores sufficient heat in liquid form to bridge nights and dark days. Two winters have passed since this apparatus was installed with success achieved.

Granting this fact, we are still confronted with an attic full of tanks containing an expensive chemical salt, which would effectively bar this sort of heating from broad application.

Another school of thought has developed what is now called the "Heat Pump". This is merely a refrigerating plant run backwards. In many parts of New York State there is sufficient latent heat in the atmosphere to permit a reversed refrigerating machine to extract heat from the air and concentrate it in a house.

If a well, or larger body of water is available the extraction process will cost less. Such a system can be used for summer cooling as well as winter heating, providing forced air is used as the vehicle. In that arrangement heating costs are about 25% more than for gas or coal. It would seem possible to locate Miss Telkes' chemical tanks in the basement, and circulate the heated fluid from sunheat absorbers into fully insulated containers below, and then extract this heat with the heat pump, and warm the home.

But again we face complicated apparatus. Since the Heat pump "on its own" has reached the point where such firms as the General Electric Company are putting it into assembly line production it is likely that Owners will prefer to pay more for operation in lieu of using solar heat. Since The Public Utility Companies as well as the manufacturers of refrigerating machines have a real financial interest in this field, it is probable that Solar Heating will relegate to the realm of "Experimental Science" long after the Heat Pump has achieved common acceptance.

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NEW YORK STATE MASONRY ASSOCIATION

Formation of the New York State Concrete Masonry Association, with headquarters at 522 Franklin Street, Buffalo 2, N. Y., has been completed.

The primary purposes of the Association will be to maintain close contact with various state departments, Architects, engineers and contractors, to constantly improve the quality of the product, and to advertise on a cooperative basis.

The new Association will do its utmost to unify the quality of the product and to achieve a moisture content of 30 per cent or less in concrete masonry units, regardless of the aggregate used.

The new State Association is actually the outgrowth of a committee consisting of various manufacturers throughout the state who so diligently worked to help the State in rewriting the specifications on concrete masonry which had not been changed in the last 8 years.

The Association is interested in the highest possible quality, uniformity of sizes, and artificial drying.

Officers of the Association follow: Garson Dinaburg, Dinaburg Block Co., Inc., Binghamton, president; Harvey Black, Domine Builders Supply Co., Rochester, vice president; John Daly, Auburn Cement Products Co., Inc., Auburn, treasurer; and Grant Reinhold, Anchor Concrete Products, Inc., Buffalo, secretary.

Directors are: Cyril F. Howe, Albany Block and Supply Co., Inc., Albany; George Kogel, Concrete Corp., New York; and Russell R. Ferrer, Alco Concrete Products Co., New York.

Robert Abbey of Abbey & Co., Buffalo, will serve as executive secretary.

Frederick W. Reinhold, president of Anchor Concrete Products, Inc., Buffalo, as a past president and present director of the National Concrete Masonry Association, was instrumental in calling together the state producers to form the new organization.

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A principal function of the Association's staff of concrete technicians is to assist engineers and architects with concrete design or construction problems.

The educational literature and the many drawings of typical concrete uses which the Association distributes widely in the United States and Canada, are intended to be helpful in obtaining the maximum service which concrete can render.

Drawings of typical designs carry a notation to the effect that final working drawings should be prepared and approved by qualified engineers or architects.

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"Appearance is important, too. They make a handsome wall. You can't improve on them so we plan to leave them just as they are. All in all, I think it was a very good selection."

The lower photo shows construction joints occurring at concrete columns to provide for expansion and contraction. The construction joints will later be caulked. You will note how the concrete columns have been faced with Lightweight Masonry Units rigidly attached to the column, while the adjacent masonry units are free to move in expansion or contraction.

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With a heating load of over 8,000,000 BTU, the project is divided into three zones, serving twelve building groups. Underground mains are run from a central boiler room to each zone. These trunk mains are of two-pipe design while the branches to the various building groups are single main circuits equipped with B & G Monoflo Fittings. The Monoflo mains are carried in the roof space and feed down to the radiation.

A novel piping arrangement permits the heating of each building group to be individually controlled. B & G Universal Pumps in the boiler room are used as primary pumps, for circulating the trunk mains. The Monoflo mains are independently circulated by secondary B & G Boosters. This method of pumping isolates the branch circuits so that they are not affected by the pressure head developed by the primary pump.

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The B & G Hydro-Flo equipment illustrated above is used in the installation described here.

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THE WORK AND STUDY CLASS

Among the 700 Architectural and Building Construction students, who have already been enrolled for the Fall Term at the Institute of Design and Construction, 26 Court Street, Brooklyn, a specially qualified group of high school graduates have been chosen by Vito P. Battista, Director of the I.D.C., for the first "Work and Study" class for becoming an Architectural Draftsman, inaugurated by the school.

Mr. Battista, who is co-designer of the Brooklyn Civic Center, established the "Work and Study" class to help talented students complete their education by assisting them to jobs in architect's offices where they can put their training to practical use. This class began on September 8th.

Mr. Battista pointed out that the plan has already received wide support in the architectural field, with many well known architectural firms ready to hire these young students. He further stated, "this course is unusual in that the student not only learns drafting-board technique, but is given extensive training in building construction subjects to completely round out his Drafting training. Even municipal building department procedures for filing plans will be included." The teaching staff will consist of practising architects and engineers who will instruct the students with immediate needs of the building and defense industries in mind.

Sixteen subjects will be given during the first year, including Architectural Working Drawings, Building Materials and Methods of Construction, Architectural Design, History of Architecture, Applied Mathematics, Mechanical Equipment of Buildings, Building Laws and Building Codes, Building Construction Superintendent, and Architectural Specification Writing. These courses will not only fit the students for jobs in architect's offices but will qualify them for City, State and Federal Civil Service examinations for the post of Junior Architect.

The regular Architectural and Building Construction classes also began on September 8th.

MOISTURE PENETRATION (Continued)
in the construction of a wall ... is there a way we can assure ourselves of moisture-proof masonry walls even without satisfactory labor, and without paying extra for membranes and other waterproofing methods?

I wouldn't be here if the answer weren't yes. And on the paper it says "Cavity Wall."

There are several types: 1) in 1940 the Arch Forum published a discussion of the brick cavity wall, consisting of two 1" or 8" wythes and a 2" air space: an ordinary cavity. 2) In May of 1951, the Structural Clay Products Institute introduced the insulated cavity wall, which is also a simple cavity construction with added features of a vapor barrier and loose fill insulation, resulting in excellent resistance to heat loss, in addition to moisture penetration prevention. 3) The "semi-cavity" wall, in which there are also two wythes of masonry separated by an air space, but the outer face is bonded to the interior face by means of masonry units.

It might almost be said, that cavity walls need not necessarily be made of moisture-proof materials. Further: although reasonable care may be taken to keep the cavity clean of mortar, it does not necessarily follow that a mortar "fin" touching both surfaces of the air cavity will be the cause and source of leaks. It is a simple fact that whatever moisture does enter the face masonry and ends up in the cavity will certainly seek the much easier route of traveling down within the cavity than the much more difficult one of seeping through the back up wythe and eventually reaching the finish. Which is also the reason that the metal ties used in the simple cavity wall do not afford avenues for water passage. Also, it seems obvious that the air space in a cavity wall would aid in the evaporation of moisture, which might penetrate the outer face, and allow a more rapid drying effect.

The yet-squeamish practitioners may follow the practice of some offices, of parging the back of the face brick. This will provide a clean cavity and eliminates fusing with methods of cleaning out mortar droppings. In cases where the back up is built first, the back up face may be parged. Proof that the cavity system works and is satisfactory may be found in the work of the late Prof. Earl Hallenbeck. The Liverpool High School, built in 1928 has never given any indication of leaks, although there were some difficulties with the cast stone cornice at the window heads . . . , but not at the wall itself. Actually the cavity wall corrects the defects in the work and materials.

King Ferry School is an example of the "semi-cavity" wall, and has proven quite successful. Its success proves that the headers in the air space do not carry moisture across the cavity. Its walls are subject, moreover, to great wind pressure, being unprotection on the windward side of Cayuga Lake, and there has never been any penetration to the plaster, which is applied directly to the tile backing.

Incidentally, the "semi-cavity" wall compares favorably with other types as far as thermal insulation value is concerned . . .

As for code requirements, semi-cavity walls will pass for both wall bearing or curtain wall construction. It is not classified by most codes as cavity wall, because the masonry bond complies with masonry wall construction specifications.

My own firm has made savings using both semi-cavity and the insulated cavity advocated by SCPI. Therefore !. Lower priced moisture-proof walls can be built: using normal materials and reasonable workmanship on a cavity wall, without the excessive cost of membrane waterproofing or the waste in space of furring methods.

SOURCES:

8. The Insulated Cavity Wall - The Mason Contractor, May 1951.
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