



THROUGH THE AGES

SEPTEMBER, 1926

"Nature was here so lavish of her store
That she bestow'd until she had no more."

—BROWN.



THROUGH THE AGES



VOL. 4

SEPTEMBER, 1926

NO. 5

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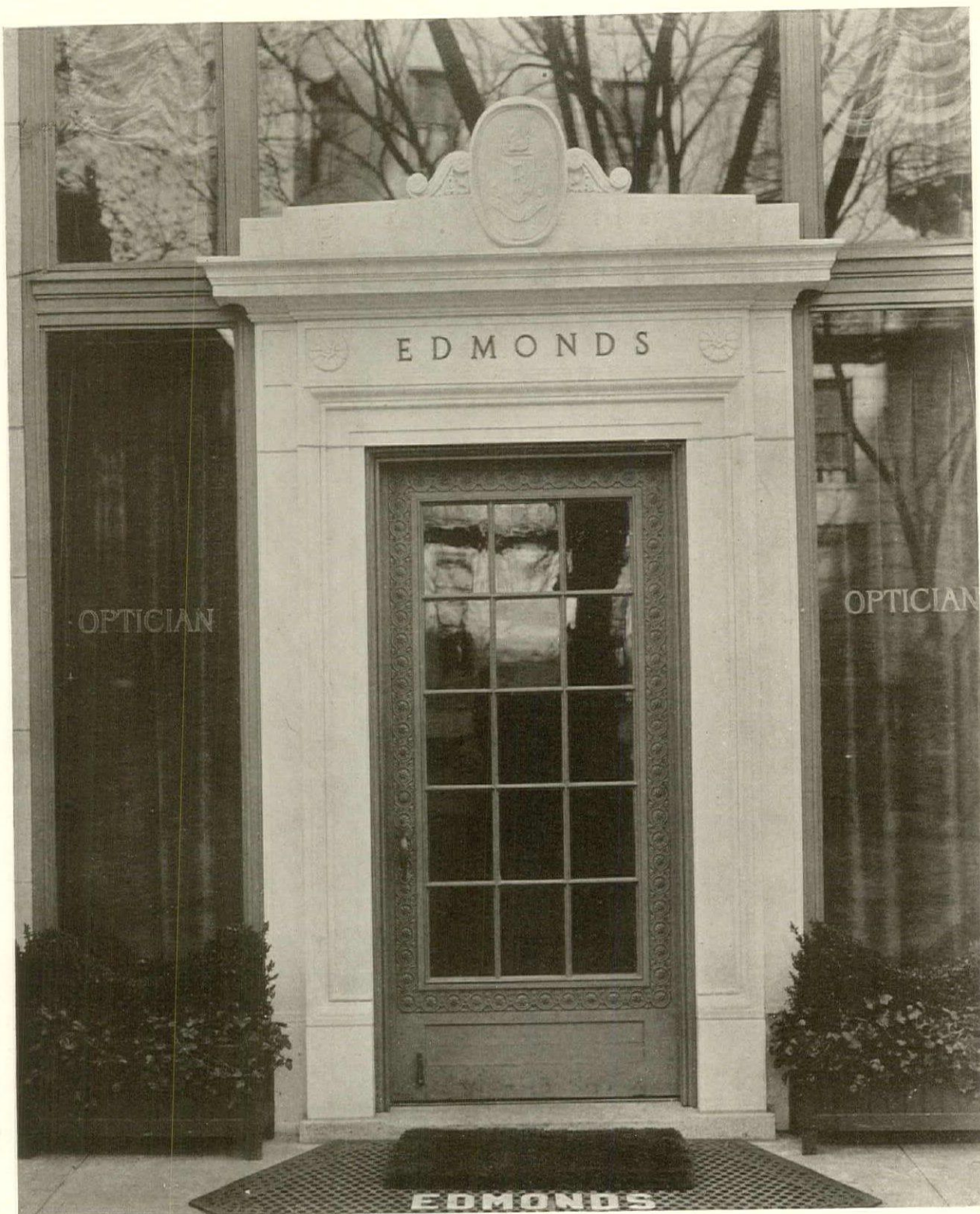
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"Whatever is beautiful," wrote Willmott, "is also profitable." This entrance way, in the Southern Building, Washington, D.C., fully justified the statement. It is of Mountain White Danby marble, and was designed by A. B. Heaton.

THROUGH THE AGES

A Monthly Magazine devoted to
the uses of Marble - its universal
adaptability, beauty, permanency
and economy.

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REMOVAL OF STAINS FROM MARBLE

Suggestions for Treating Stains Caused by Iron, Tobacco and Ink

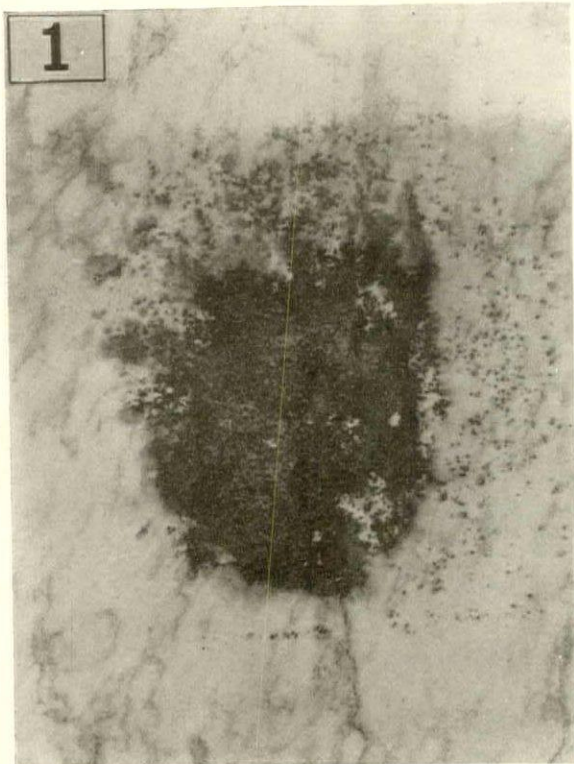
By D. W. KESSLER

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VARIOUS kinds of accidental stains may be encountered in marble in its different uses, and generally each particular type of stain requires a special treatment. It is not always possible to determine what the staining matter is and in such cases the treatment has to be largely experimental. A great variety of chemicals may be applied to marble without appreciable injury, but acids or those chemical solutions which develop an acid condition should usually be avoided or used judiciously. However, the serpentines, commonly called Verde Antique marbles, are of such composition that they are not appreciably affected by acids and hence this class permits a wider variety of treatments.

Usually stains cannot be readily removed by merely applying the proper chemical to the surface or by scrubbing the stained part. This is due to the fact that stains penetrate to some degree and cannot be reached by the mop. In general it is

necessary to resort to a poultice or bandage. By a poultice is meant a chemical mixed with a fine inert powder and water, or some other liquid, to a pasty or mortar consistency. This is applied to the stained part of the marble with a brush or trowel to form a layer of considerable thickness. The bandage treatment consists of soaking a layer of cotton or several thicknesses of cloth in a chemical solution and pasting this over the stain. In some cases the poultice is preferable and in others the bandage is better. Both serve to hold the chemicals in place for several hours without drying out. This prolongs the action of the solvent and as the solvent evaporates the dissolved matter is drawn out into the poultice or bandage. Some stains can be removed with one application of the poultice or bandage while others require several repetitions. In many cases of badly neglected marble which have become stained almost beyond recognition it is surprising how well they can be cleared



Iron rust stain on marble made by iron filings laid on the surface and kept wet for two weeks.

up and brought back to the original appearance. Methods of treating various stains will be discussed separately.

IRON STAINS

This is a common type of stain on marble and can usually be recognized by its resemblance to iron rust or by its position with respect to adjoining iron work. Two methods have been found which are effective in removing this type of stain; one of these methods is slow and has no injurious effects, and the other is fairly rapid but has a slight etching effect on the marble. The first of these is as follows:

Formula Number 1

Dissolve one part of Rochelle salt or sodium citrate in six parts of water. Add to this an equal volume of glycerin and mix thoroughly. Stir into this enough whiting or

marble dust to make a paste just stiff enough to adhere in a thick coating to the marble. Apply this to the stained marble with a trowel or putty knife. This will remain tacky for a few days, but when it becomes dry it should be removed and replaced by a new layer. Usually this process will have to be repeated several times to remove the stain. This is a perfectly safe treatment and in some cases it may be found preferable to the more rapid treatment.

Formula Number 2

Materials required: Sodium citrate, sodium hydrosulphite ($\text{Na}_2\text{S}_2\text{O}_4$) and whiting. Sodium citrate can be obtained at any chemical supply house; whiting may be had from a paint store; but the hydro-sulphite may have to be ordered from one of the following firms:

J. T. Baker Chemical Company, Phillips-



This shows the same marble after treatment with iron rust formula Number 2. Three applications were required to remove the stain completely.

burg, New Jersey, or under the trade names indicated, from:

"Burmol"—R. I. Street Company, 28 North Clinton Street, Chicago, Illinois.

"Sulphogen"—Riverside Manufacturing Company, Arcade Building, St. Louis, Missouri.

Dissolve one part of sodium citrate in six parts of water and apply this to the stained marble; or even better, saturate a white cloth in the solution and paste it over the stain until ready to apply the hydrosulphite. The latter consists of small gray crystals a little coarser than table salt. If the stained marble is in a horizontal position sprinkle a thin layer of the hydrosulphite crystals over the stain, moisten with a few drops of water and cover with a thick paste made of whiting and water. If the stain is on a vertical face of marble, the whiting putty can be applied first a little below the



Tobacco stain on marble made by a layer of cotton kept soaked in strong tobacco juice and laid on the surface for two weeks.

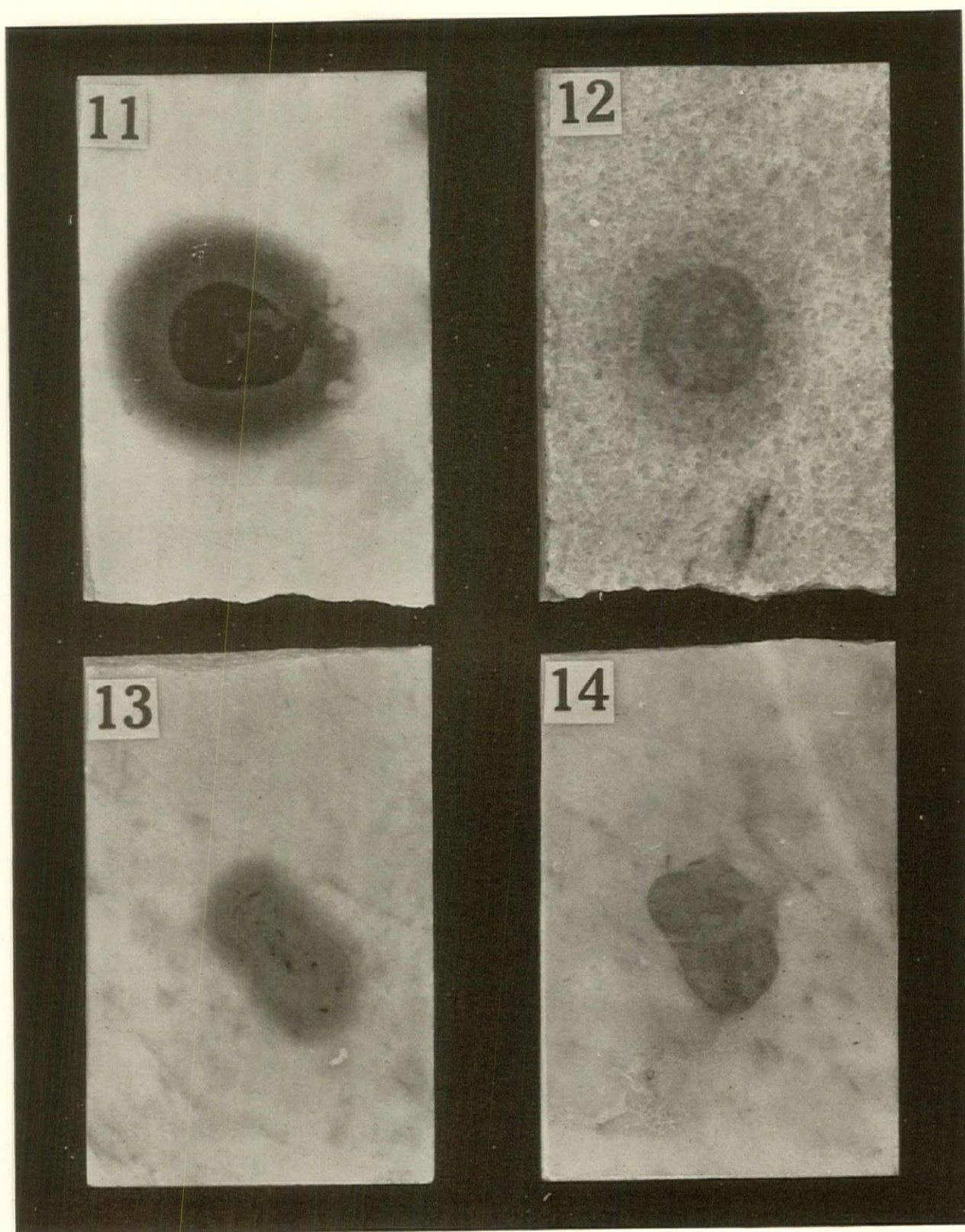


The same marble as shown above after treatment with the poultice formula for tobacco stains mentioned in the text. Three applications were required.

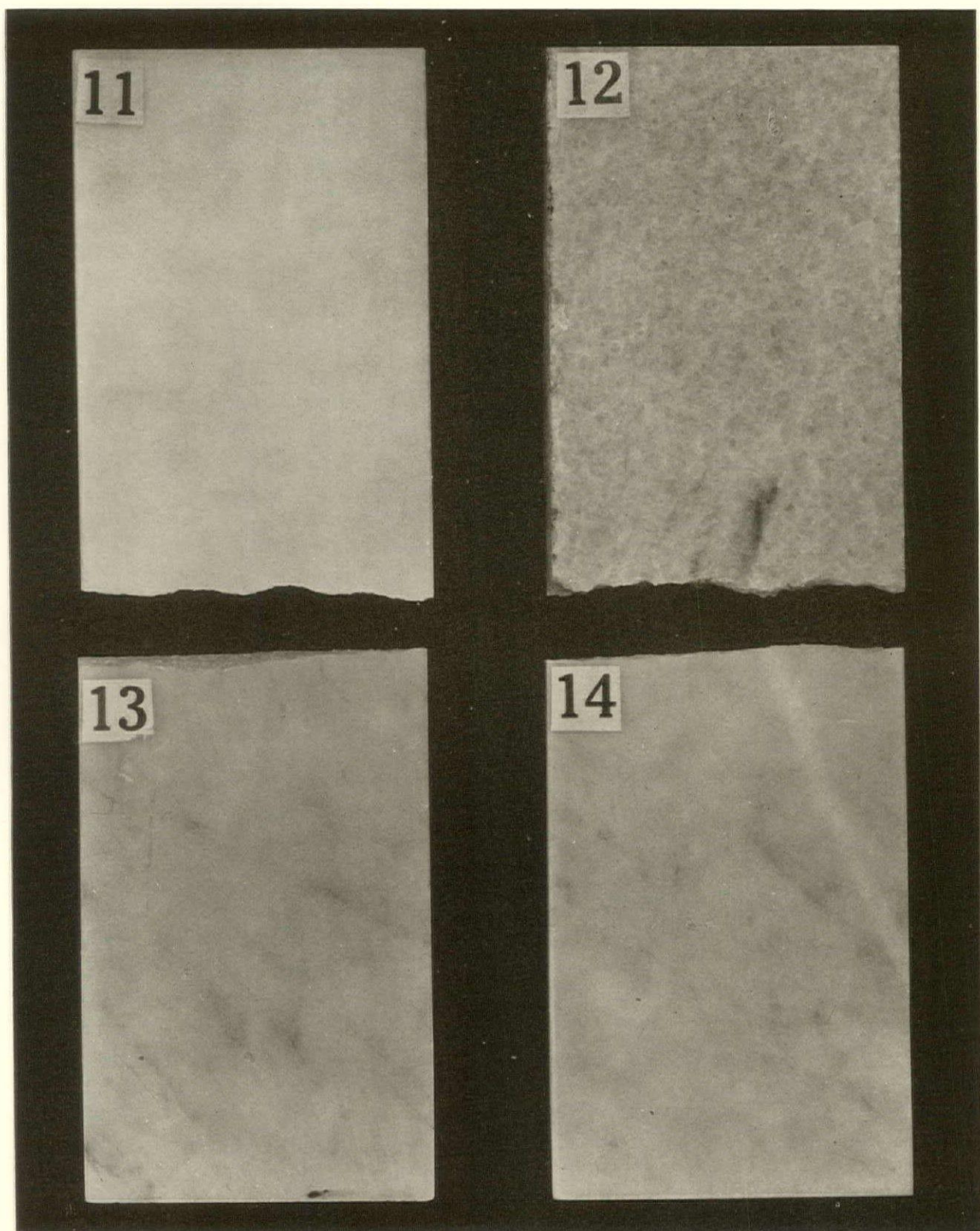
stain and hollowed out slightly to hold the hydrosulphite powder. Then work the putty and the hydrosulphite up until the stain is covered. Leave this on the stain for about an hour and remove. If the stain is not entirely removed repeat the operation. Unless the stain is deep, one treatment will usually remove it. This treatment is apt to dim the polish somewhat due to a slight etching effect. However, it is not a difficult matter to repolish the treated portion with a piece of chamois and some putty powder which can be obtained from a marble setter. Moisten the chamois, dip it into the dry putty powder and rub the marble vigorously until the polish is obtained.

TOBACCO STAINS

Tobacco stains may produce an unsightly appearance on marble but their removal is



Ink stains on marble: No. 11, red non-copying ink; No. 12, purple duplicating ink; No. 13, red waterproof ink; No. 14, blue-black writing ink. Nos. 12 and 14 were as intense as No. 11, but as these colors do not affect the photographic plate to the same extent as red, they appear rather weak in the illustration.



The same marbles as shown on opposite page, after treatments as follows: No. 11 required two applications of the perborate poultice; No. 12 one application of the perborate poultice and one of chlorinated lime poultice; No. 13, same treatment as No. 12; No. 14, one application of perborate poultice and one of formula No. 2 for iron rust.

not difficult. The grit scrubbing powders, commonly used on marble or tile floors, are usually satisfactory for application in the form of a poultice. Stir the powder into hot water until a mortar consistency is obtained. Mix this thoroughly for several minutes, then apply it to the stained marble in a layer $\frac{1}{2}$ inch or more in thickness. Leave this on until dry (twenty-four hours at least) and remove. Repeat the treatment if necessary.

If the scrubbing detergents are not at hand, the following formula may be used: Shave about 1 cubic inch of soap into one quart of hot water and stir until dissolved. In another vessel dissolve one large tablespoonful of soda ash or two of washing soda (sal soda) in one pint of water. Add this to the soap solution and mix the two thoroughly. Scrub the stained marble with some of this mixture on a soft cloth for two or three minutes to remove the surface stain and soak the marble. A poultice is then made with whiting or powdered talc four parts, corn starch one part, and enough of the soap solution to form a thick paste. Apply this to the stain in a layer $\frac{1}{2}$ inch thick and leave on twenty-four hours. Repeat if necessary.

INK STAINS

Ordinary writing ink usually consists of gallotannate of iron, a blue dye, a mineral acid, phenol and a gum or glycerin. Such an ink etches the surface due to the acid content; the dye penetrates; some of the gallotannate also penetrates, but is mostly precipitated at the surface. The stain, especially if an old one, will require one treatment to remove the dye and another to remove the iron. The dye stain may be treated as follows: Make a saturated solution of sodium perborate in water. Mix this with whiting to form a thick paste. Apply it to the stain in a thick layer and leave it

until dry. If a brown stain (the iron) remains it should be treated with Formula Number 1 or Number 2 mentioned above for iron rust. Sodium perborate can be obtained from any druggist.

Many of the red, green, violet and other bright colored inks are water solutions of synthetic dyes. Such inks contain no acids and do not etch marble. Stains made by such can usually be removed with the sodium perborate treatment given above. Small stains of this type of ink can often be removed with ammonia water. This may be used by soaking a piece of cotton in the ammonia water and laying it over the stain for a few hours. Javelle water may be effectively used on such ink stains and in some ways it is preferable. This can be applied in the same way as the ammonia water or mixed with whiting and applied as a poultice.

A mixture of one part of chlorinated lime and one part whiting mixed to a stiff paste with water may also be used as a poulticing material for this type of ink stains. Chlorinated lime can usually be obtained from any drug store but Javelle water, on account of its unstable nature, is not always easy to obtain.

Some blue inks contain Prussian blue, which is a ferrocyanide. Such colors cannot be removed by the perborate treatment, Javelle water or chlorinated lime paste. Ammonia water or a soap solution will remove this color.

India ink consists of finely divided carbon held in suspension in a liquid by gums, shellac, etc. The carbon does not penetrate marble but some of the minute particles may lodge in the uneven parts of the surface and be very difficult to remove. Carbon is entirely insoluble, so chemical treatments are of no avail. If a vigorous scrubbing with soap does not remove all of the

carbon from the surface it will be necessary to use a mild grit and grind away part of the surface. If a rough spot is left by this treatment it may be repolished as described under Formula Number 2 mentioned above for iron stains.

Indelible inks often consist of dyes and the stains from such may be treated in the

same manner as suggested for those from bright colored inks referred to above. Some indelible inks contain silver salts which turn black. A stain of this kind may be removed with strong ammonia water, but the action is slow. Saturate a piece of cotton in the ammonia water and place it over the stain for several hours.



This machine, which measures the transverse strength and elasticity of marble slabs, is one of several pieces of apparatus devised by the United States Bureau of Standards in Washington and used in the Bureau's study of problems relating to the marble industry. Mr. D. W. Kessler, the author of the foregoing article, who is in charge of this research work, is shown operating the handle of the machine.



The \$2,500,000 Davenport Hotel at Spokane. Marble has been used in various forms throughout this structure.
Kirtland K. Cutter, Spokane, architect.

MARBLE IN SPOKANE BUILDINGS

This Far Northwestern City Draws Largely Upon Alaskan Quarries

THE development of Spokane, Washington, from an Indian village less than fifty years ago to a modern municipality of 130,000 people is one of the great achievements of our day.

When James N. Glover, called the "Father of Spokane," settled on the Spokane River bank in 1873 he little dreamed that one day Spokane would be the largest community between the Twin Cities of

Minnesota and Pacific tidewater. In no other country in the world could such development have occurred in the short space of half a century.

Just as the pioneer discovered the great Northwest years ago, their followers are rediscovering it today. The pioneer camped beside the Falls of the Spokane River, because of their appealing beauty. The citizens of Spokane have built a modern city

about these Falls, attracted not alone by this beauty but by the possibilities represented in its latent power. This city, with its towering structures, representative of present day commercial architecture at its best, exerts a definite appeal to its residents as well as its strangers.

During the last dozen years, marble has been used extensively in Spokane's buildings. A few years ago some of this material was quarried at Valley, near Chewelah, sixty miles north of Spokane, in Stevens county. At the present time these quarries are closed down, though there has been

some indication lately that they may be reopened in the near future. The marble used is now brought from Alaska, Vermont and Tennessee principally, though some of it comes from Georgia and Alabama and even from far away Italy.

In 1891 the Marble Bank Building, one of the first structures in the city to use the material, was constructed. This was owned and built by A. M. Cannon, Spokane's first building contractor. It is one of the most substantial small buildings which this city possesses. It is built entirely of marble brought from Alaska and is the home of the

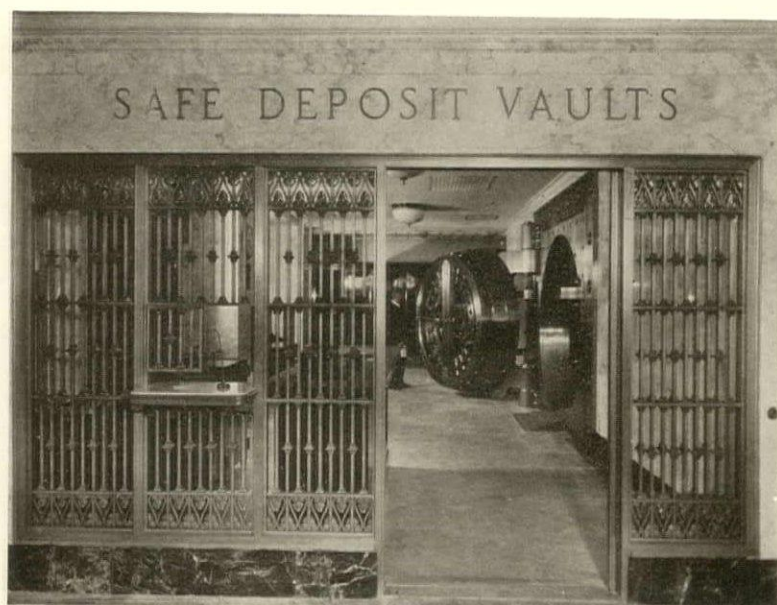


The Marble Bank Building at Spokane, Washington. This structure is made entirely of Vermont marble and has been the home of the Fidelity National Bank for many years.
L. L. Rand, of Spokane, was the architect.

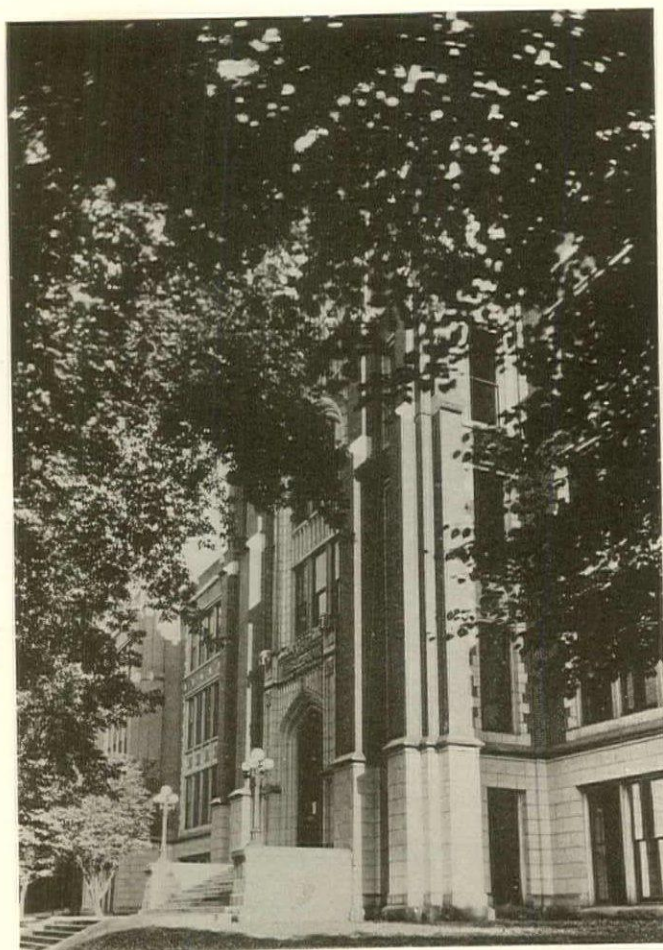


Elevator corridor of the Old National Bank and Union Trust Company, Spokane
The walls are of English Veined Italian marble.

View of vault in the basement of
the Old National Bank and
Union Trust Company,
Spokane, Wash.



Main lobby of the Old National Bank and Union Trust Company.
The floor is of Gray Tennessee, the counters and base of Verde
Antique, and the apron of Grecian Tinos No. 3. The stairway
balustrade shown in the central foreground is Alaskan White.



Lewis and Clark High School, Spokane, Washington. Marble, mostly Alaskan and Vermont, is used for the interior columns and stairways. L. L. Rand, Spokane, architect.

Fidelity National Bank, one of Spokane's oldest banks. The architect, L. L. Rand, of Spokane, drew his inspiration from the Renaissance style. The round arched windows on the main façade, flanked by double Corinthian pilasters, are effectively surmounted by pilasters which are repeated in the ends of the side elevation. The composition is finely proportioned and exceedingly effective, and the marble seems to be the only logical material for its rendition. The corridors and counters are also solid marble, so that the interior is in keeping with the promise afforded by the external surfaces.

The Old National Bank Building, fifteen

stories high, is another building of note which used marble in various forms. Unfortunately, the interior is marred by the introduction of a discordant element. The huge Ionic columns, easily the most prominent features of the main lobby, are of scagliola. This substitution detracts from an otherwise impressive room. The floor is of Gray Tennessee. The counters are of English Veined Italian marble, with tops and bases of Verde Antique. The stairway leading to the vault floor is of Alaskan White marble, as are the walls of the safe deposit department. The Italian marble, mentioned above, was also used in the elevator corri-

dors. The rich veining makes this portion of the building particularly interesting. A Tennessee floor, with borders and wall bases of Verde Antique, completes the effect.

The Lewis and Clark High School is noted for its marble stairways and columns, which are mostly of material from Alaska and Vermont. This structure, considered from a tectonic point of view, is one of the most imposing schools in Spokane. This is not, however, the only educational structure in the city in which marble appears, as it is used extensively in the more than forty schools, colleges and universities in this city.

The magnificent altars built of Italian

marble in the various Catholic churches are in many cases works of art. Our Lady of Lourdes, for example, has a marble pulpit, and this, as well as the altar rails and the altars themselves, almost invariably elicit words of praise from visitors.

As is customary in most large cities, the use of marble in the leading hotels is accepted as standard practice. The Davenport Hotel and restaurant, which may be taken as a conspicuous example, followed the general precedent and employed considerable marble in its structure. The Italian marble fountain on the main floor, in the lobby, shows an exquisitely wrought figure of a



The altars and rails in Our Lady of Lourdes Catholic Church, Spokane, are of Italian marble.

child grasping a dolphin, from the mouth of which a stream of water pours into the bowl. The pedestal is elaborately carved and in the water at the vase of the fountain brilliantly colored fish swim about and add a pleasing color tone and touch of action.

The Pompeiian barber shop of the Davenport Hotel is acknowledged to be one of the most artistic, attractive and efficiently equipped and operated shops that can be found anywhere. The walls and columns supporting the elliptical arches forming the ceiling are in Statuary marble with honed finish and of a cream color, shading into pale amber. The stairways of marble are also very attractive.

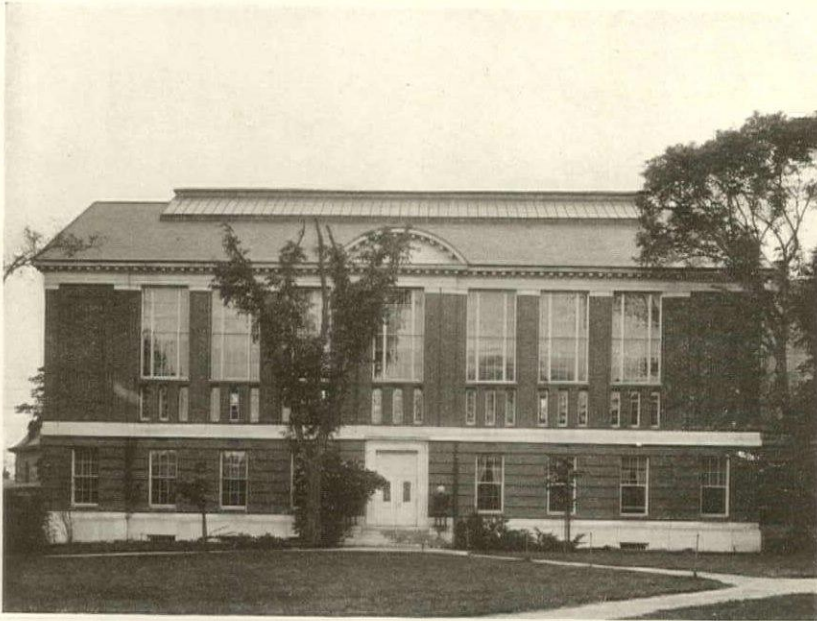
A small structure was recently completed

in Spokane that deserves special mention. This is the addition to the mortuary of Smith and Company. It is built of marble and cost \$80,000. It was designed by Julius Zittel, of Spokane.

During 1925 more than \$4,000,000 was expended on new and remodeled buildings in Spokane. So far during the present year, building activity has more than held its own; and in almost every one of the newer structures marble has played a more or less prominent part. A great many of the smart shops display show windows with marble bases or even entire façades of white or slightly veined marble; and entrance ways paved in Tennessee, Travertine or Alaska White may be seen in ever-increasing numbers.



Marble addition to the mortuary of Smith and Company of Spokane. Julius Zittel, Spokane, architect.



The Library, Radcliffe College, Cambridge, Mass., has a marble trim.
Bigelow and Wadsworth, Boston, architects.

THERE is still room for the cozy, homely building which can have a propriety and even a very distinct formality of its own. The spirit of geniality has a legitimate place in architecture; certainly no material other than marble can, if intelligently used, add so much of animated individuality to the dull sombreness of brick. It has, besides, the advantages of stability and low cost of upkeep.



Ivy Street entrance to the Hurt Building, Atlanta.

ATLANTA'S RELATION TO GEORGIA'S MARBLES

This Thriving Southern City is Making a Practical Use of its State's Products

By O. F. REEVES

IT is unusual for the history of a city to begin with its destruction, yet this is true of Atlanta. War left it a smoking and leveled mass and the true history begins with the year 1865. On sites, formerly occupied by frame structures, new buildings grew and the citizens, perhaps with the

realization that what happened once could happen again, turned their thoughts to buildings of permanence.

In the building of a city, it is perfectly natural that native materials be given preference, from an economic as well as a sentimental standpoint. In rebuilding,

Atlanta found herself more than abundantly supplied with these necessities. Occupying a conspicuous place in the list, were the marbles of North Georgia.

The layman has always recognized marble as a synonym for beauty and durability, and he knows that in Nature's storehouse nothing can be found that compares with it in this respect, but on the other hand he is apt to think of marble as a material adaptable only to the carving of monuments and statuary, with perhaps an occasional usage for exterior building purposes. Modern machinery, man's ingenuity, and a growing realization on the part of the architect that the possibilities of marble are unlimited, have strengthened its position in the fields of commerce. There are few modern build-

ings which do not contain interior marble in some form or other. This is so universally true that a building of any size today can hardly be called a modern building, unless marble has found its place somewhere in its construction.

A tabulation of the uses of marble comprises a list which would be a revelation to those unfamiliar with building in these modern times. Bases, wainscots, bank fixtures, counters, desks, baths, public toilets, door trims, casings, stairs, floors, fountains, garden seats, etc., make up but a few of the manifold uses of marble, and the treatment runs the range from plain smooth finished surfaces to the ultimate in design and artistry.

A notable example of stair work is seen

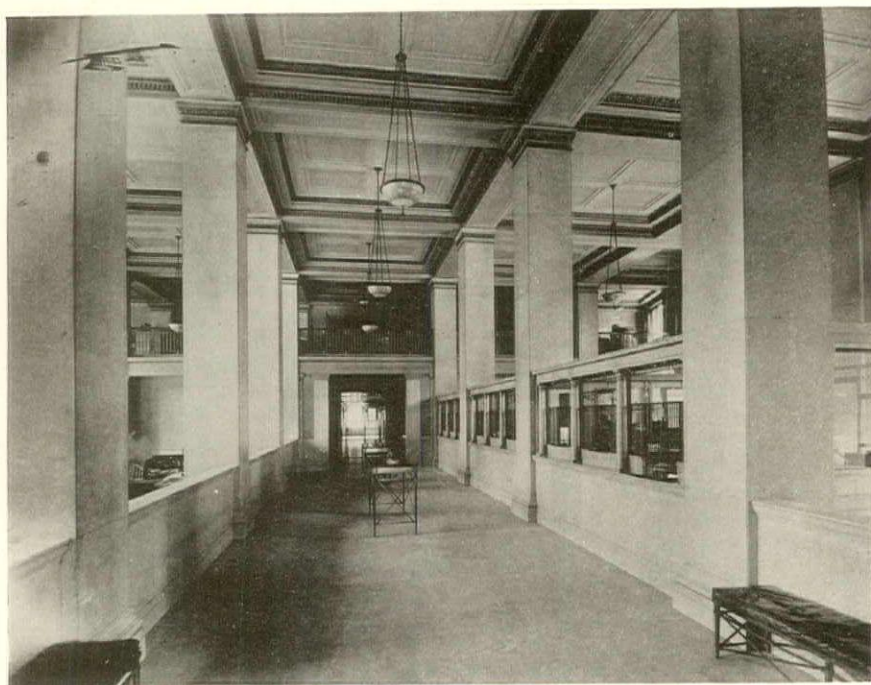


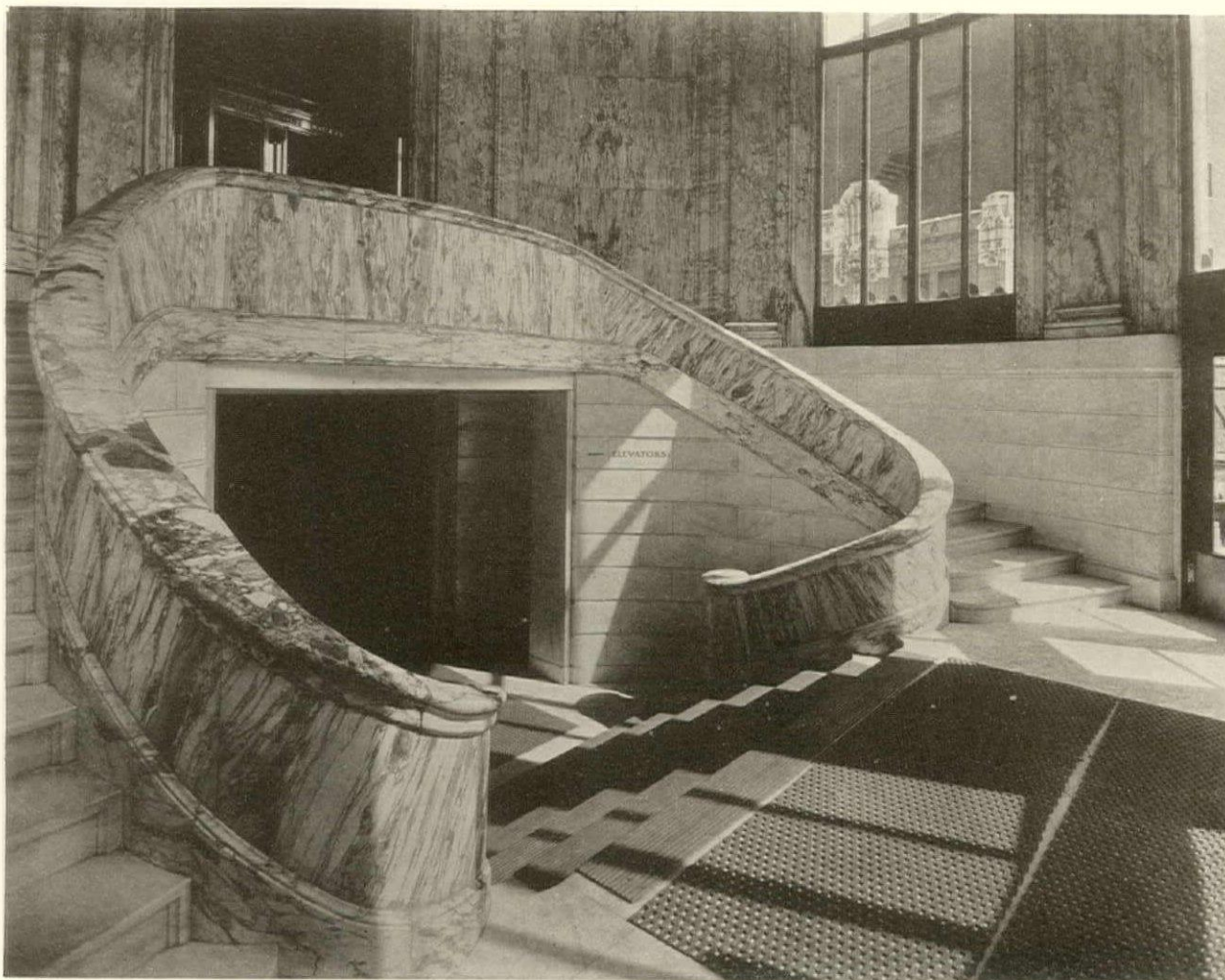
Grand staircase of the Candler Building. Each floor of this building has its marble wainscoting and even the swimming pool in the basement is of white marble. Geo. E. Murphy, architect.



Telephone Company quarters
on the first floor of the new
addition to the Hurt
Building.

Banking room of the Continental
Trust Company, Hurt Building.
The floors are Gray Tennessee;
the screens and columns
are Tavernelle.





View of the entrance rotunda in the Hurt Building. White Alabama and Breche Violette marbles were used.

in the grand staircase of the Candler Building, Atlanta, Georgia. Beginning with its carved griffins, forming the newell posts, it mounts in heavy moulded treads between solid marble walls and facias. In bas-relief are carved busts of members of the Candler family. Massive balusters and handrails follow the wind of the stairs around the well hole.

Marble is lavishly used throughout the interior of this building in wainscots and floors, and the almost perfect condition of this material after over twenty years' service is a striking testimonial of its practical qualities.

The Candler Building may be considered as the pioneer building in Atlanta in the interior marble field; a comparison of its marble, however, with that in later buildings reveals that time has but served to enhance its beauty.

The Federal Reserve Bank Building in Atlanta is a comparatively recent structure in which marble was generously used. The exterior treatment is in classic design; and in the interior, selected marbles have been used to obtain the maximum in lighting effects and general harmony.

Another outstanding structure in the city is the Hurt Building, occupying a triangu-

lar site at Edgewood Avenue, Ivy Street and Exchange Place. It is seventeen stories high, of "flat iron" shape, and the exterior up to and including the first floor cornice line, is of Mezzotint Georgia marble with bush hammered finish. It was designed by James E. R. Carpenter, of New York.

The triangular plan just mentioned has its base on Ivy Street. In the middle of this southeast front is a finely sculptured marble doorway, in the Renaissance style, placed between double Ionic pediments that extend through the lower floors to the first cornice and support heavily carved medallions above. This doorway with its round arched pediment and ornate decorations is one of two features that distinguish an otherwise ordinary, though not unattractive, exterior. The other is the entrance way at the northwest, or tip, of the flatiron. Here a circular portico of marble contains massive marble columns and a marble balustrade. The capitals of these columns are intricately carved, as is the frieze above the doorway.

The interior of the Hurt Building is equally rich in marbles. In the original structure, which was built in 1914, the entrance rotunda is a combined treatment of White Alabama and imported Breche Violette. Generally speaking, the original building was treated with Alabama marble; the addition was built in 1924, and in this portion light Cherokee marble was employed. The banking room quarters, originally occupied by the Federal Reserve Bank and which are located just above the rotunda at the main entrance to the building, are finished entirely in Tavernelle marble with a hone finish, except for a floor of Gray Tennessee. On the first floor of the new addition are the city offices of the Southern Bell Telephone Company, which have the appearance of a banking room. Here the

screens and wall marbles are of Botticino, and the floor of Pink Tennessee.

The corridors throughout the building have marble floors and wainscoting. In the first floor of the older building the floors and walls are White Alabama; the first floor rotunda of the new addition has Georgia floors and walls. All of the toilet rooms have marble floors, wainscoting and stalls. The floors generally are of hone finish; the wainscoting has a polished finish.

A notable group of buildings, mentioned in a recent issue of "THROUGH THE AGES," is that of Emory University. The exteriors of these are of marble, and future additions will be constructed of the same material. Random Ashlar of White Georgia was used; the dullness of wide expanses of unbroken surfaces of monotonous is thus alleviated and the effect is decidedly impressive.

The use of marble is not, however, confined to the large buildings of Atlanta. Small shops, lunch rooms, and dozens of similar enterprises have discovered the economic advantages of this material. It is even finding its way into private residences, in increasing quantities.

A specific example of such usage is shown in the illustration on page 24, which demonstrates clearly that a home interior need not necessarily be rendered cold and overly formal because of marble. In this room, which is a solarium, the floor is of marble tile, of Gray Tennessee and Alps Green in alternate squares; Alps Green is also used for the border base, risers of the steps, window trim, stools and cap. The walls are of Gray Tennessee, honed finished. Such a room as this is both impressive and at the same time "livable" and full of warmth. Naturally, the cost of upkeep is practically eliminated, and the ease with which this apartment can be cleaned is a joy to the housekeeper.



View of the entrance of the Hurt Building, in Atlanta, Georgia, looking down from the stair head. This is a part of the original building erected in 1914, from designs by James E. R. Carpenter of New York. In this portion the dignity of the white Alabama marble floors and lower walls is rendered doubly effective by the colorful purples and rich reddish browns of the upper wall panels, the Corinthian pilasters, and the gracefully curving arms of the double stairway. The entrance to the offices of the Continental Trust Company is at the head of the stairs.

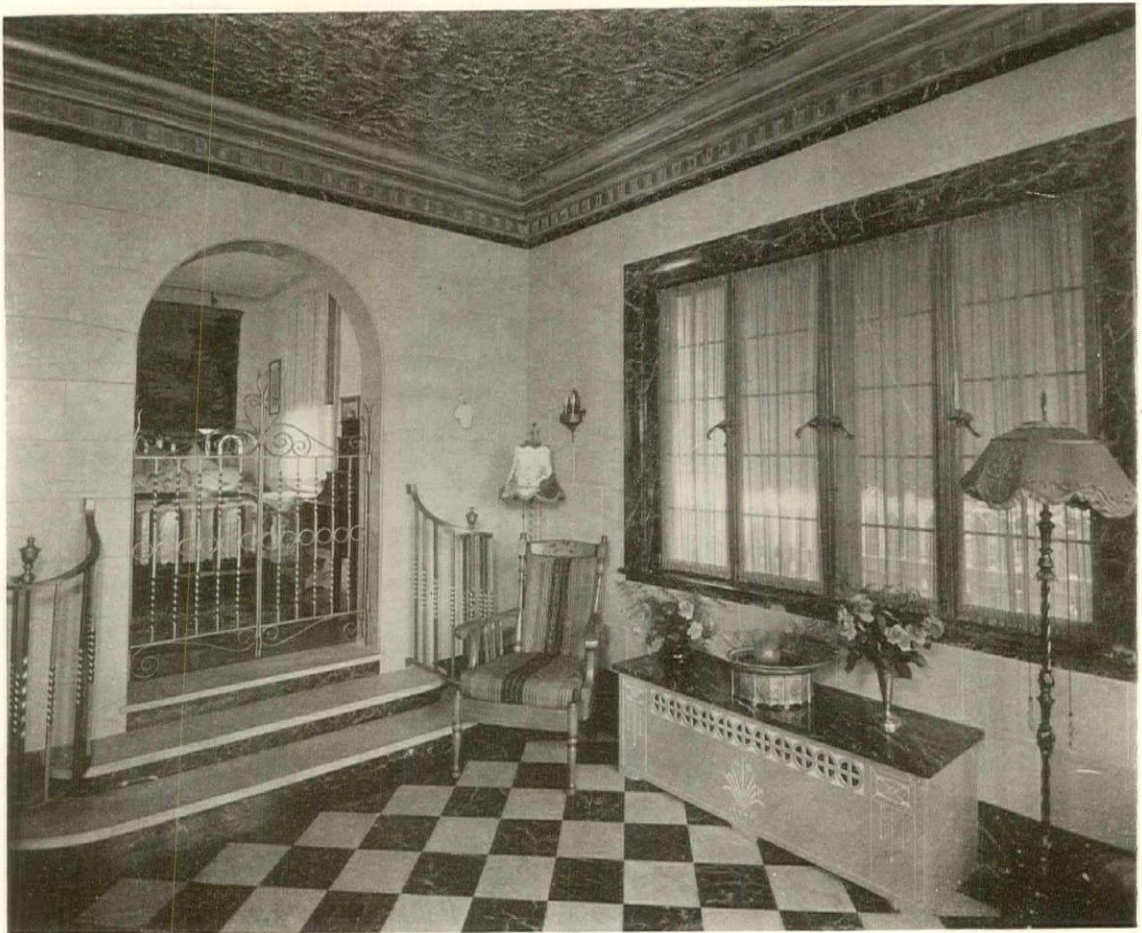
Atlantans are naturally proud of Georgia's marbles. They have not only used them themselves, but they have seen them shipped to far distant states and even into foreign countries. While exact figures are not available, it is safe to assume that the revenue derived from these exports runs, not into thousands, or hundreds of thousands, but into millions annually. For instance, in the exterior alone of the Capitol Building at San Juan, Porto Rico, at this time being completed, the marble contract ran almost \$1,000,000.

Recognition by other sections of the country of Georgia marble for sculptural purposes is evidenced by such notable works as the colossal Lincoln statue in the Lin-

coln Memorial Building, Washington, D.C.; "Civic Virtue," New York City, N.Y.; and the statue, in heroic proportions, of Dr. Crawford Long, which stands in the Hall of Fame, Washington, D.C.

The quarries and finishing plants give employment to thousands and the payrolls run into staggering figures. The help is chiefly Anglo-Saxon and diversified in body from laborer to master artisan.

What the marble industry has meant to Atlanta in the past is a mere shadow of events to follow, and the skyline of this wonder city presents an ever growing monument to those pioneers who have wrested from the vaults of Nature the foundations of the Empire State.



Solarium in a residence in Atlanta, Georgia. The walls and half of the floor tiles are Gray Tennessee; the dark marble is Alps Green.



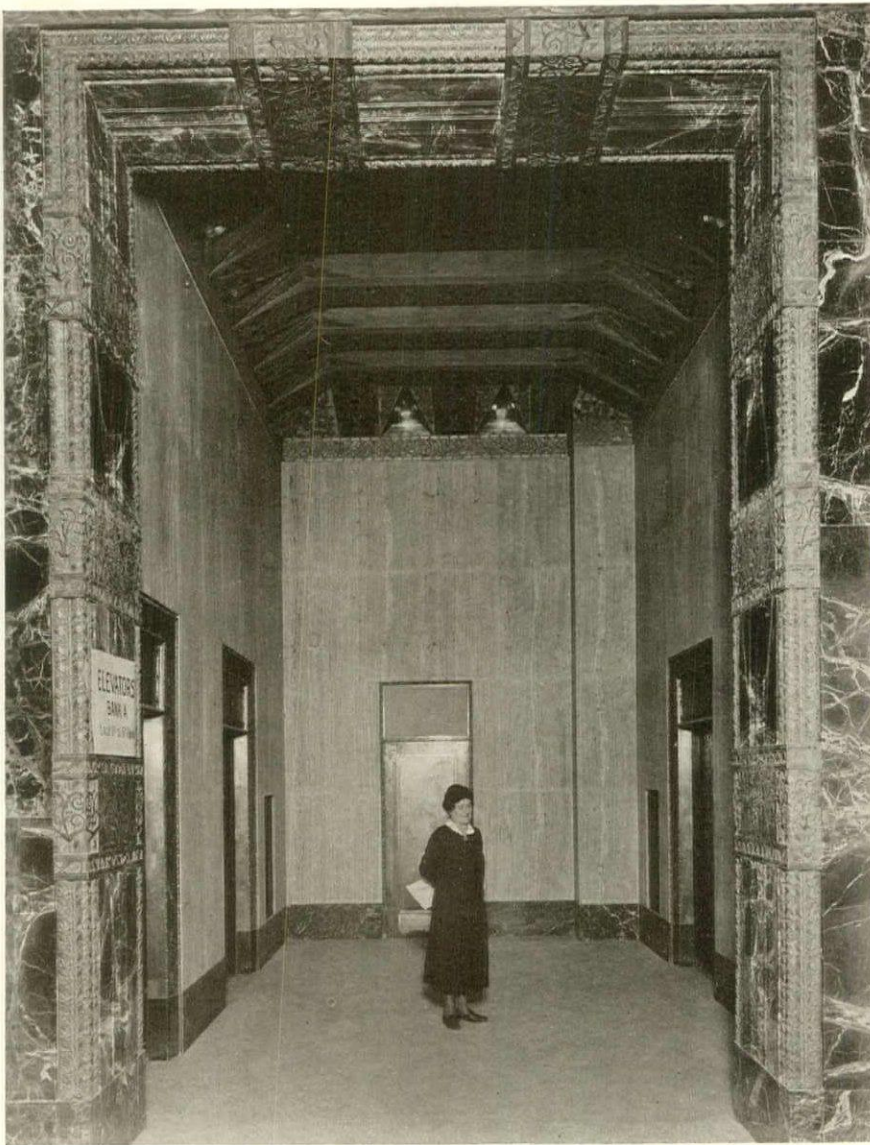
THE NEW WEST STREET BUILDING OF THE NEW YORK TELEPHONE COMPANY

A NEW building giant has appeared on the skyline of downtown New York, a rugged, castle-like structure, the architectural beauty of which makes it stand out in relief against the background of flat sides and square tops of other skyscrapers.

This is the New York Telephone Company's new central office and administration

building on West Street, the latest addition to the country's modern telephone structures, and the largest telephone building in the world.

The building was conceived by H. F. Thurber, former president of the company, now Chairman of the Board of Directors, when at the end of the world war the demand for new telephone service in New



One of the elevator banks in the Barclay-Vesey Building. The floor and walls are Travertine; the columns and bases are Levanto marble. Note the exquisite carving.

York City and elsewhere in the company's territory became the greatest ever known, and existing quarters became inadequate. The telephone business must always function on the basis of future as well as present requirements, and it was foreseen that within a few years considerable space would be needed for new central office and larger administrative quarters.

While it was first believed that at least

two buildings would be needed to meet the telephone company's requirements, studies prepared by telephone engineers showed that the erection of a single large building was feasible and would effect the greater economy.

The site was chosen and acquired in 1920 and plans for a suitable structure were prepared by McKenzie, Voorhees & Gmelin, of New York City.

This site in itself is of historical interest. It was part of the river bed in 1609 when Hendrick Hudson sailed up the river which bears his name. The block which is bounded by West, Washington, Barclay and Vesey Streets, Manhattan, was first accounted for in 1696 in the great charter granted by the English governor Thomas Dongan, but it was not until 1773 that the lots under water were

deeded as property, the land being later reclaimed between 1787 and 1800 when bulkheads were thrown out and the land behind them filled in to make wharves for trading vessels near the markets in this vicinity.

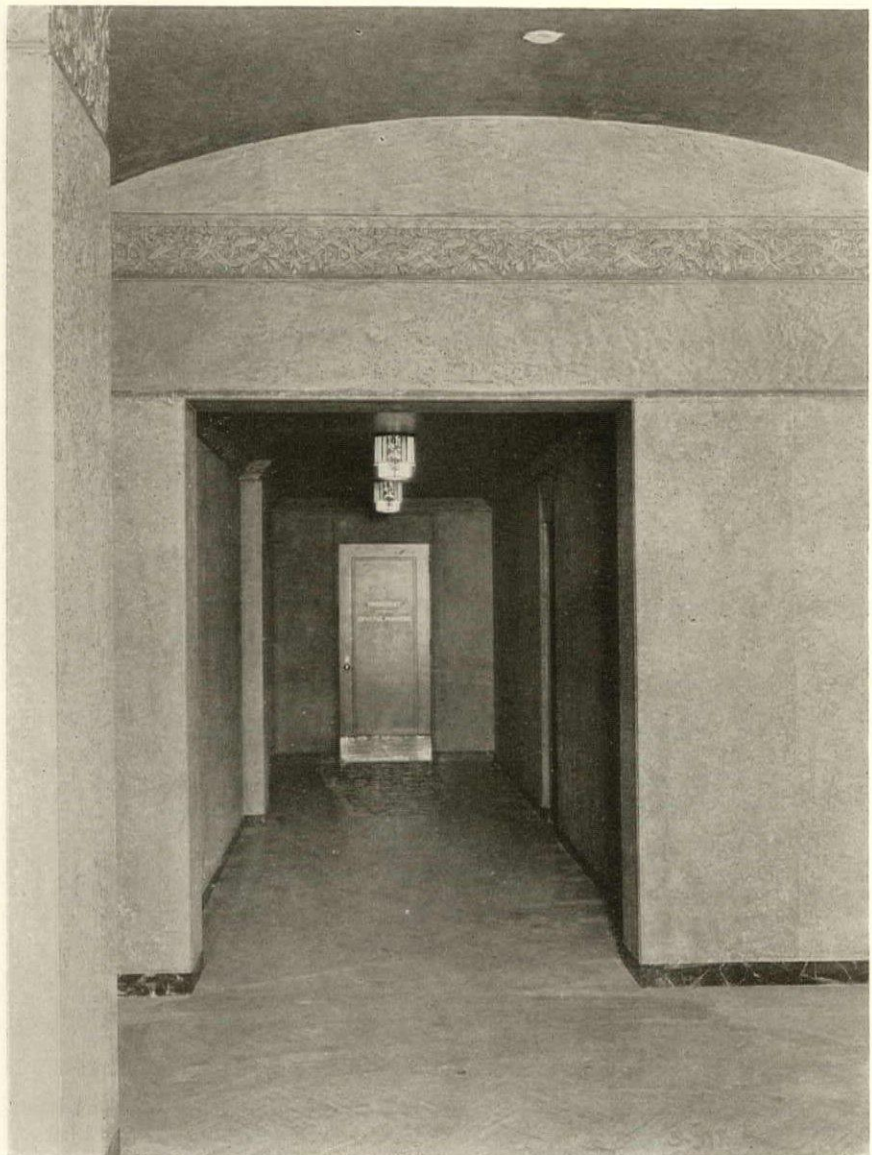
The land was bought by the telephone company in various small parcels; the work of demolition began May, 1923, and was completed on July 14th of the same year.

During the work of excavation many old relics were found at different levels of the filled in ground. Foundation work started on June 20, 1923, and was completed on August 30, 1924. Hundreds of "sandhogs" labored day and night until bedrock had been reached 70 feet below the ground level, and twenty-two huge caissons forming the main supports of the building had been sunk. Forty concrete buttresses were also provided to support the foundation walls.

Structural steel work above the ground began in the fall of 1924 and under the efforts of armies of workmen, the building crept up, story by story. The first space was ready for occupancy in February, 1926, the building being completely occupied in June 1926, departments moving in from the other quarters day by day as floors were finished and placed at the disposal of the building superintendent by the builders.

The new telephone building represents a combination of American labor and capital in the construction of headquarters for an industry peculiarly American. With a cross section acreage pyramided to its maximum economic point in the general building plan, and with utility as its outstanding characteristic, there has nevertheless been no sac-

rifice of architectural beauty. Rising in the air 486 feet above ground, with five floors below ground level and thirty-two above, the building presents something of the appearance of a pyramid, with setbacks occurring symmetrically above the tenth floor, up to which point the full area of the building site is utilized. The site itself is approximately 210 by 250 feet; and the total usable floor space amounts to over 860,000 square feet, providing room for



A section of the executive suite on the twenty-ninth floor, Barclay-Vesey Building. The floors are of Travertine; the walls are of Kato stone with bases of Levanto.

approximately six thousand workers.

The exterior of the building is of rough brick, light buff in color, with sills, lintels, arches and panels of limestone. On the ground floor running the full length of the building on the Vesey Street side, is a covered arcade 17 feet wide, over which the building space is pyramided for ten floors, effecting a convenience to the traveling and shopping public passing through Vesey Street and at the same time making no sacrifice of building space. This arcade is a new departure in building construction in downtown Manhattan, and city engineers have pointed to this type of arcade as a means to aid in the solution of New York's growing pedestrian and vehicular traffic problem.

Marble and stone enter largely into both the outside and inside decorative scheme of the new West Street building. On the outside the stone in the arches, lintels and panels has been finished in decorative designs, hand chiseled, the decorative stone arches of the main entrances being particularly fine examples of handicraft.

Beauty and simplicity of design are the outstanding characteristics of the interior of the building—beauty linked with utility and modern construction.

The walls and floor of the main lobby and certain of the corridors are of Travertine marble with Levanto marble base and trimmings; elevator entrances and doors are of hand wrought iron with bronze frames. Twenty-four electrically operated elevators in four banks provide the vertical transportation.

Most of the other corridors have floors of Terrazzo with a wainscot of Botticino marble 4½ feet high along the corridor walls. The walls above are of a buff finish to harmonize with the floors and wainscot. All partitions in the lavatories are of Napoleon

Gray marble. In the basement stairways a considerable quantity of white Stratford has been used.

Preparatory studies from plaster models have assured a uniformly artistic and decorative scheme for the entire building. This is especially noticeable on the twenty-ninth floor where the executive offices and suites are located.

In the ante-room, the corridors and reception rooms, the floors are covered with Travertine stone. To harmonize with this floor, a wainscoting of Kato stone was used for the walls and piers of the elevator corridors.

Blending with the Travertine stone in the ante and reception rooms on this floor, is a wainscoting of coarse sand finished plaster with a Kato stone chair rail. The walls are of sand finished plaster and also carry an ornamental plaster frieze. The ceilings are also of sand finished plaster.

Altogether there are 122,065 square feet of six varieties of marble used in the new interior of the telephone buildings, the average thickness of the marble used being 1½ inches. The different varieties are used in the following quantities:

Botticino, 67,000 square feet.

Travertine, 23,400 square feet.

Napoleon Gray, 21,000 square feet.

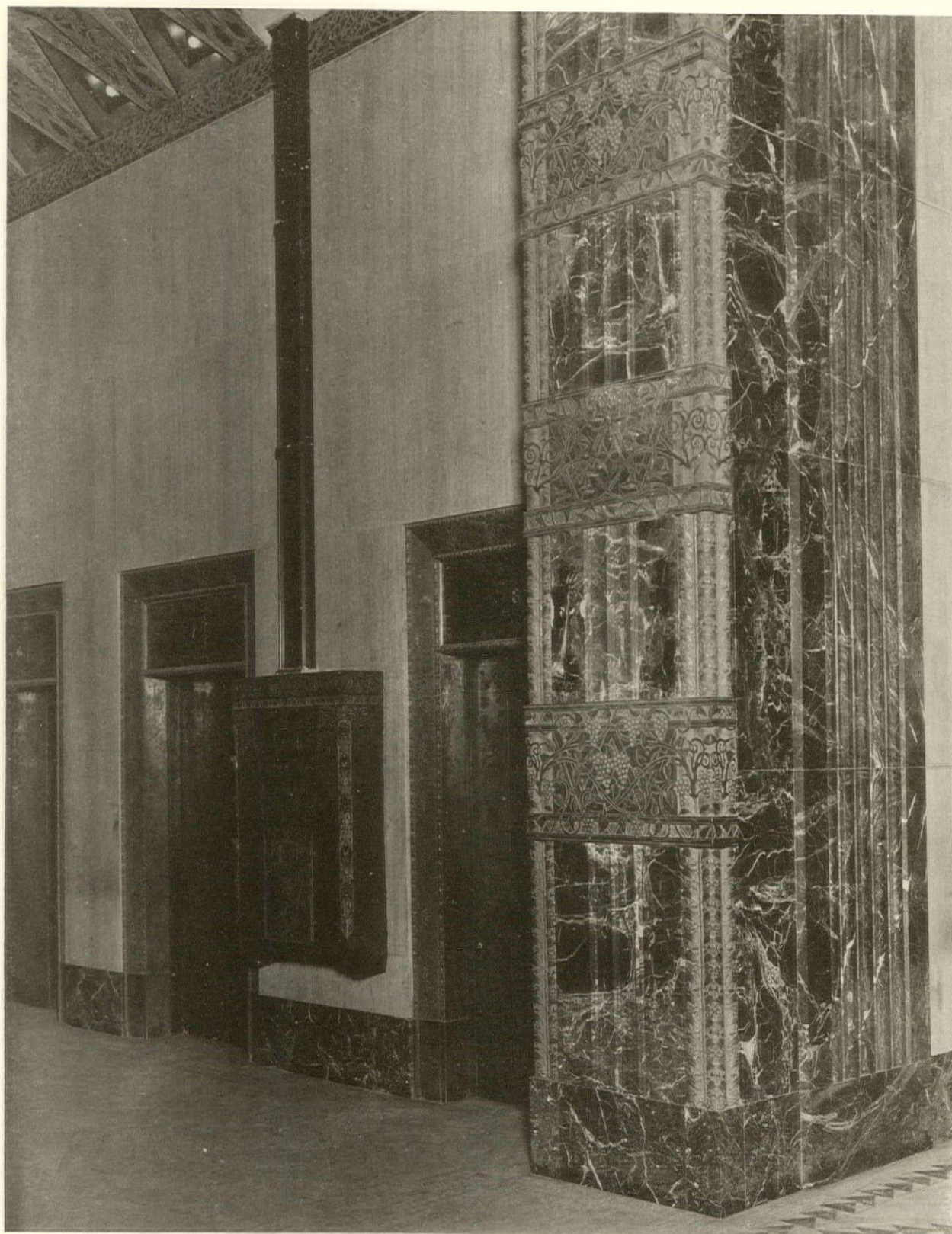
Levanto, 5,425 square feet.

Kato, 2,640 square feet.

Tennessee Pink, 2,600 square feet.

This does not include the stone on the outer walls of the building, of which there was 40,000 cubic feet used; the granite bases and facings on the ground floor, of which 5,500 cubic feet were used; nor the 16,600 cubic feet of cast stone.

Marble and stone, always a beautifying factor in any structure, contribute largely to the fine appearance of the new Telephone Building. Among the other features of an



A portion of the lobby of the new Telephone Building in New York, showing a corner of hand-cut Levanto marble with walls and floor of Travertine stone.

artistic nature are twelve mural panels extending the full length of the main lobby ceiling. These panels illustrate the development of communication, from the primitive methods of the ancient Greek runners and smoke signals of the American Indians, to the present era of telephonic accomplishment. The large central panel symbolizes the achievement of electrical communication which has spanned the world.

Discussing the artistic architecture of this building giant, the late Mr. Joseph Pennell, whose etchings have made him famous, describes in the *New York Times* magazine of October 18, 1925, the New York Telephone Company building as an oasis of beauty in a desert of building standardization. He goes on to say:

"There is now being completed in New York City a most impressive piece of mass construction, the New York Telephone Company Building.

"This building has a splendid site covering a whole block. In the hands of a good many architects it might have been ruined, becoming merely another ineffective and monotonous building. Instead, it has been made the most impressive modern building in the world.

"Upon every one of the four approaching streets, I found the most impressive, most overpowering building giving an impression of sheer might. Study it from the streets that surround it. Thus you will learn that great things are being done in the city after all."

Others have shared the impression Mr. Pennell expressed at his first sight of the new Telephone Building which, seen from the ferry boats plying the river, or even from the crowded streets of downtown Manhattan, stands out—a thing of beautifully symmetrical lines in an environment of monotonous flat-topped structures.



One of the elevator banks in the Barclay-Vesey Building. The floor and walls are Travertine; the trim is Levanto marble.



The National State Bank of Elizabeth, New Jersey. Dennison and Hirons, New York, architects. Notice the exquisite carving in the Napoleon Gray marble of the door.

BANKS—AND MARBLE

By ALFRED C. BOSSOM

WHEN you think of prosperity in men, conservative success, affluence, instinctively your mind turns to the bankers you know. The finer the building the banker has, the more financial reverence you unconsciously bestow upon him—and why?

Being human we use our sight more than any other faculty. We mentally visualize the prosperous banker in appropriate surroundings—and what are those?

We have not far to seek. Just think of the best you know; it will suffice. Picture him behind a handsome marble bank screen which rests upon a beautiful marble floor and all framed against a dignified marble background.

Now just stop a moment! Isn't that the way the best bank you know is equipped? If it is otherwise, it naturally wouldn't be the best bank.

The rule applies from Maine to Cali-

fornia, from Oregon to Florida. The aristocrats of the profession have done it—and why?

Because that type of architectural clothing invariably conveys the impression these bankers desire the public to have: Security, Prosperity, Dignity.

Is there any other material that so ably conveys this to the observer without the banker saying a word or paying a dollar for advertising to tell the story?

No matter from where the man or woman may come, all know marble is solid; it is not initially cheap (though it is not actually "expensive" either) and it is not an imitation of something it is not; and if it is in a bank, they are pretty safe in assuming that the bank was prosperous and safe when this

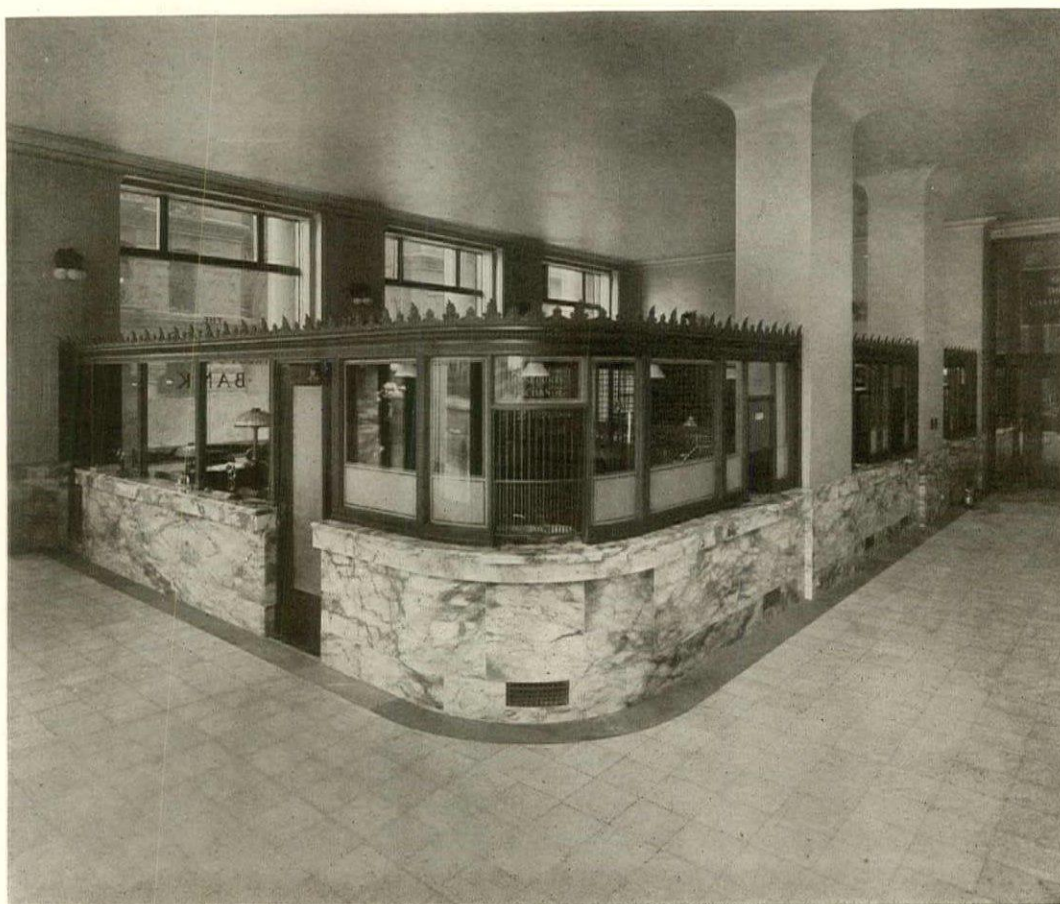
marble was installed, otherwise a cheap substitute material would have been selected.

For 365 days a year this material is preaching its sermon of stability, provided it is kept clean.

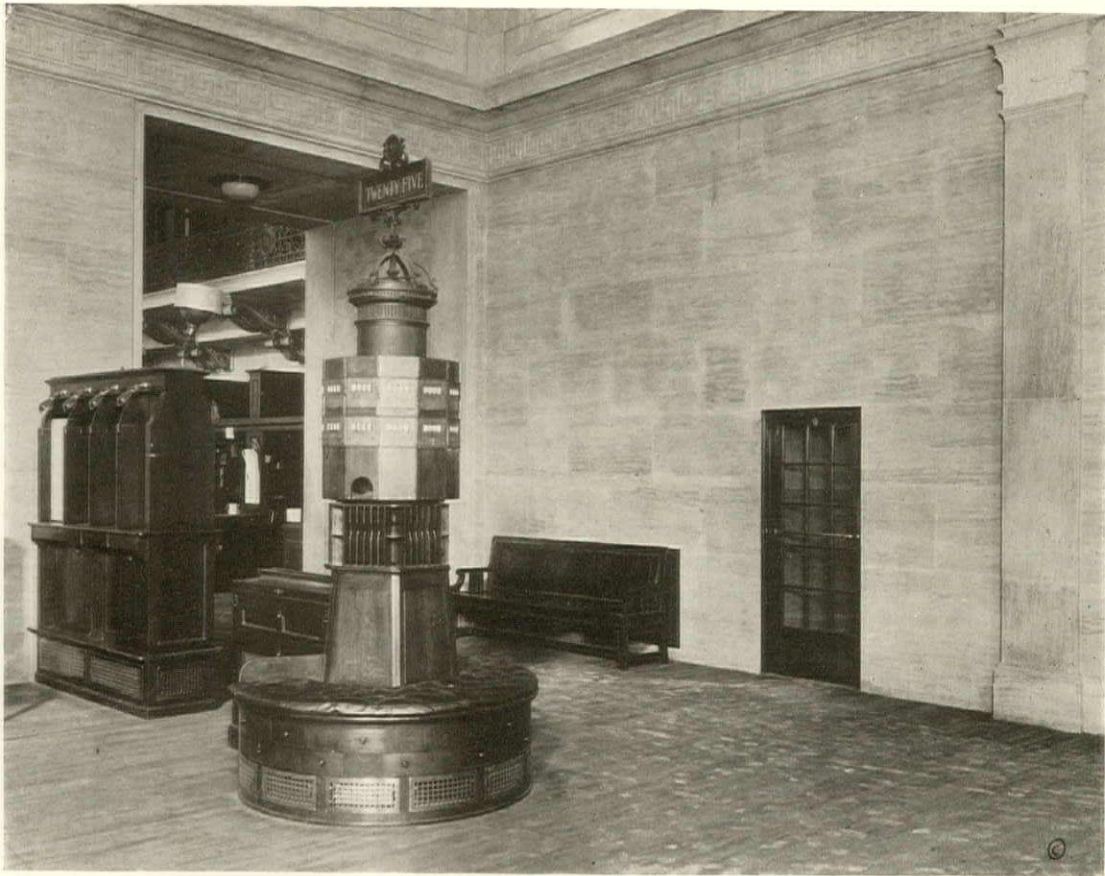
There is no advertising that will "carry on" for so little effort, year in and year out.

The richest use it and the poorest would like to—and probably would if they were possessed of sufficient foresight and an understanding of its actual economies.

Let us take a little journey of inspection. We will start in the most important city in the world. The office of J. P. Morgan at the corner of Broad and Wall Streets, in New York, not only has marble on the inside, but it has entire exterior of American marble and it looks better today than it did the day



The Old Peoples Trust Company Bank, of Chicago. The yellow Siena marble of the counters are rich in color.



The trading room of the New York Stock Exchange, New York City, has walls of Napoleon Gray. Trowbridge and Livingston, of New York, were the architects.

the building was opened a number of years ago.

Step across the street to the New York Stock Exchange. Again the choice of façade material was another American marble. The men whose actions go a long way toward making the world believe this country is either prosperous or otherwise, selected it as most appropriate to convey the correct impression to the beholder.

The list of such buildings in New York could be extended indefinitely. Let's jump, however, to New Orleans where we see the great Hibernia, lined and columned with the most beautifully selected Hauteville marble. Another and even longer jump lands us in San Francisco. The Bank of Italy—here it is again!

In quick succession, we transport ourselves to the Continental and Commercial of Chicago, the Liberty of Buffalo, the American Exchange of Dallas—they have all used this king of bank building materials, either internally or externally, or both.

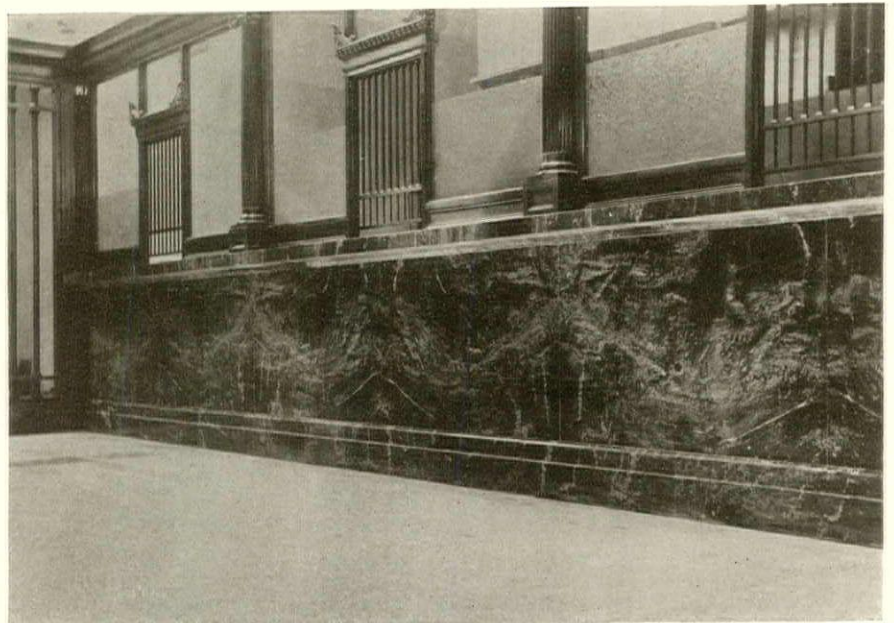
Is there a single new Federal Reserve Bank Building that has omitted to use marble? Richmond, Cleveland, Minneapolis—they are rich with it. Why, they would almost as soon omit the vault, as to build the main banking room without making use of marble in some portion.

Men wear trousers for two reasons—to protect their legs and because it is expected of them.

Banks use marble for pretty much the same reasons—it will stand the hardest wear



The Washington Branch Bank, in Washington, D.C. The floors are Tennessee; the counters and columns are Tavernelle Clair, with Black and Gold bases.



Royal Jersey Green marble in the Easton Trust Co., at Easton, Pennsylvania. Hoggson Bros., architects.



The benches, check desks and columns, besides the floor and counters, are all marble in the Broadway Trust and Savings Bank, in Chicago, Illinois.



The Liberty Bank of Buffalo, New York. Alfred C. Bossom, of New York City, was the architect.

and tear and then again "it's expected of them."

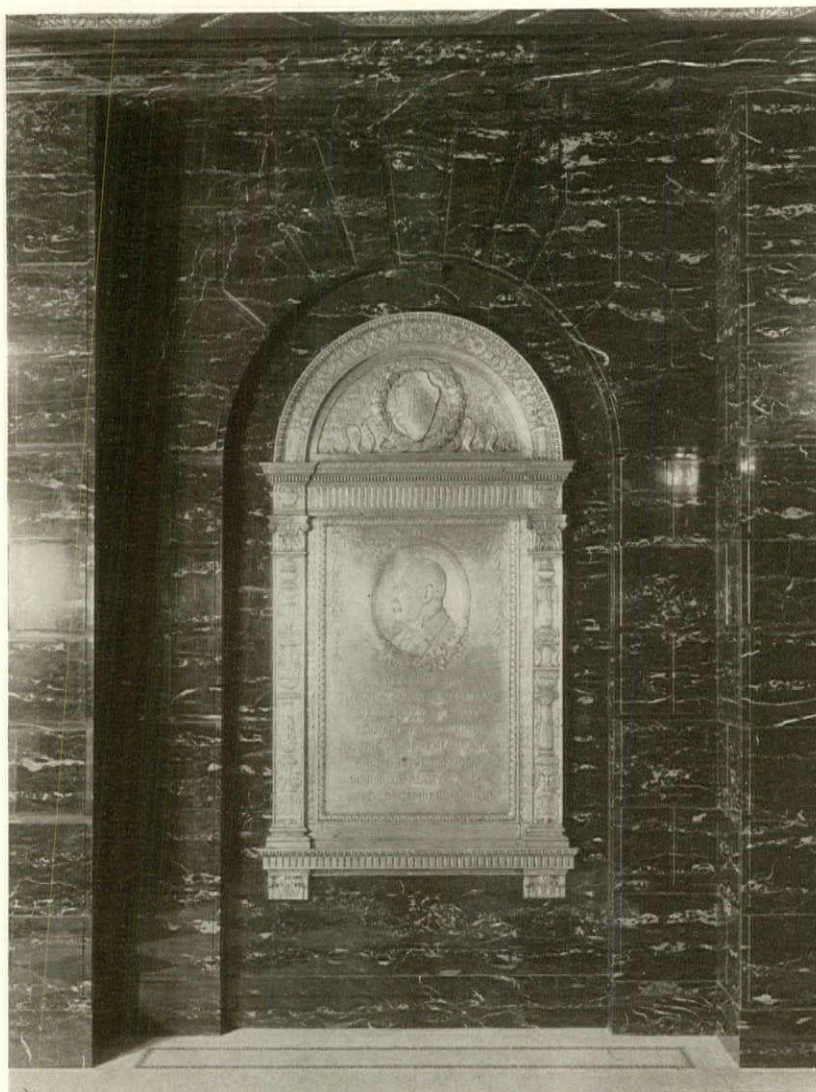
Other materials, such as handsome walnut counters or limestone walls, are used most successfully sometimes, but even at that, what designers would use them without using a marble base?

THAT TELLS THE STORY—marble stands the strain of wear better than any other material that has been used in banking houses.

In those dear, old days when you walked

into your banker's office with your hat in your hand actually desiring to pay him some interest on a thoroughly secured loan, but feeling all the time he was doing you a favor by actually letting you have the very commodity from which he made his profit, and to supply which he kept his bank open, the old wooden screen was the rule of the day.

Times have changed; every sane man knows that a bank's prosperity depends absolutely upon the success of its customers



© Ewing Galloway, N.Y.

A memorial tablet of white marble against a background of Black and Gold marble in the First National Bank of Jersey City.



In the Bank of California, at Seattle, the floor is Napoleon Gray marble with Black Belgian border.
The screens, check desks, settees and counters are of Escalette marble with Belgian Black base.
John Graham, Seattle, architect.

and vice versa, and that the banker is the custodian of the collected units of resources of all his customers.

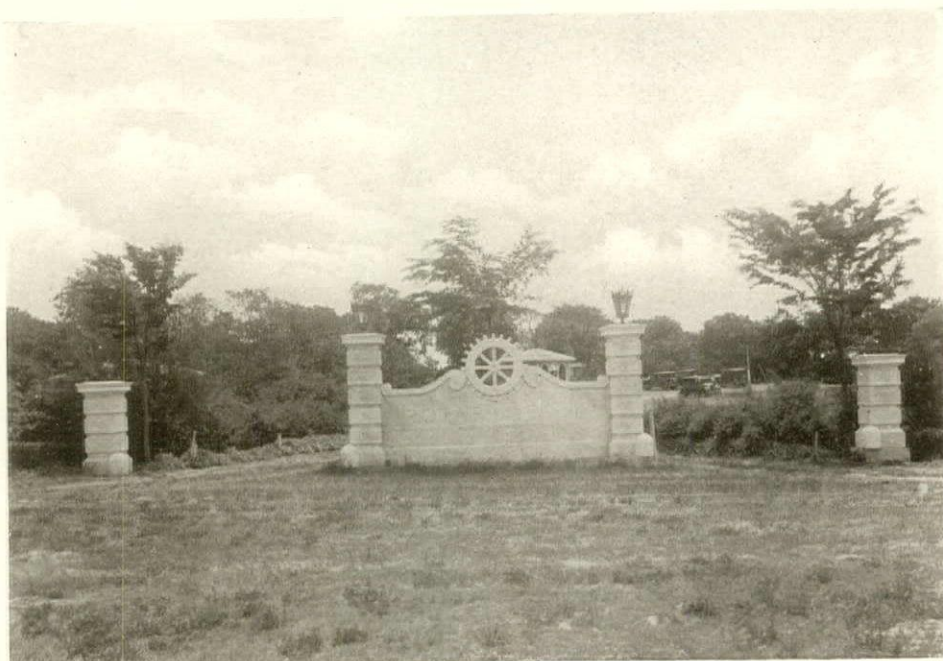
Consequently everyone now feels a proprietary interest in "My Bank," no matter how small the account or how large the line of credit; and all want to see the banker in appropriate surroundings.

The wood-interior idea that America originally acquired from Europe no longer holds even over there. America's examples have opened their eyes, and they are following our precedents.

In sunny Spanish Madrid and in hard

pressed German Hamburg, the new banks are using marble. London, Paris, Copenhagen—all are following the "American Way," and when you go into a modern European bank today and fail to find some marble, you feel as though all is not quite as it should be. There is something missing and you wonder what. The impression you receive is, to say the least, one that is not likely to redound to the benefit of that particular banking institution.

America was quick to appreciate the psychology of marble. It has a lot to learn yet about the actual economy of marble.



ROTARY PARK, OKLAHOMA CITY

The Rotarians of this Western City Provide an Extensive Playground
For the Children of the Poor

HENRY L. MENCKEN never misses an opportunity to deride the activities of the Babbitts; but we often suspect, even when he is bombarding the Rotarians, the Civitans and the Kiwani with his most bitter invectives, that he is writing with his tongue in his cheek and thoroughly enjoying the dust that his rapid-fire pen is kicking up.

But even if Mencken is sincere—if he is actually suffering from a chronic Babbitt-phobia—the recent action of the Oklahoma City Rotarians of establishing a playground for the under-privileged poor children of that city, must excite in him a certain admiration.

This playground, known as Rotary Park, was first conceived in 1921, when Mr. Walter C. Dean, then Chairman of the Boys' Work Committee, outlined a plan to purchase a piece of land in the southwestern portion of

Oklahoma City—a part of the municipality that was largely inhabited by the poorer classes of residents—comprising approximately forty-three acres. This was to be improved, beautified and fitted up as a playground, and provided with competent instructors and supervisors.

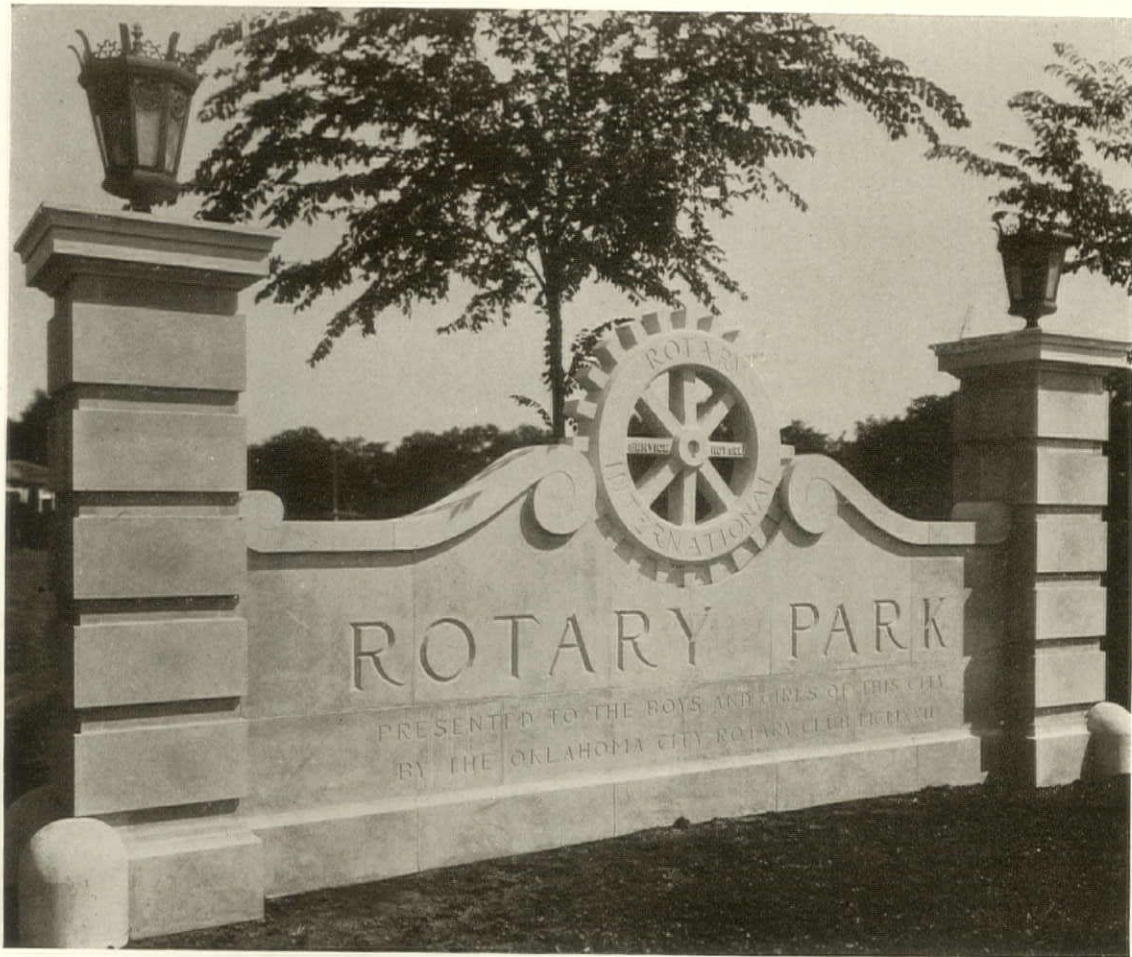
The idea met with a hearty reception, and \$23,000 was immediately subscribed by the membership of the Rotary Club, numbering at that time about 200. The ground was purchased for \$6,500, a club house costing approximately \$6,000 was built; trees, hedges and flowers were planted, the landscaping accomplished and a shelter building erected. A swimming pool was constructed as well as several wading pools, and many kinds of playground apparatus were installed. In addition, tennis courts and baseball diamonds were built, and as a fitting introduction to

this children's dreamland of pleasure, a beautiful white marble entrance way was erected.

A professional play man of national repute was brought to Oklahoma City to supervise the sports of the children. Life guards were engaged and a year round caretaker and a group of helpers were employed. All of the expense was borne by the Rotary Club. The total outlay for the grounds and equipment was about \$47,000. The upkeep expense until the first of this year was also met by the Club, but on January 1, 1926, Rotary Park was deeded to the children of Oklahoma City through the city, with the provision that the program of improvements as outlined by the club would be carried out in

the future and that supervised play be provided at two other city parks.

The handsome marble entrance mentioned above was designed by Bailey and Alden, architects of Oklahoma City. The huge wheel, the Rotarian symbol, is carved with the name and slogan of the organization: "Service; Not Self." Below, in deeply incised letters, appears the name of the park, beneath which is the inscription: "Presented to the Boys and Girls of This City by the Oklahoma City Rotary Club MCMXXII." This entrance way was erected in August, 1925, and the entire design, excepting the lamps over the center piers, was built of Imperial Gray marble.



Detail of the entrance to Rotary Park, Oklahoma City, Oklahoma. Imperial Gray marble was used. Bailey and Alden, of Oklahoma City, were the architects.

A LIST OF THE WORLD'S MARBLES

By J. J. McClymont

Note—In a past issue, Mr. McClymont proposed, for the sake of convenience, to divide the different marbles into four groups. These arbitrary groupings were as follows:

GROUP A—Any marble or stone sold to the trade in fair-sized slabs or blocks of commercial size, rectangular shape and guaranteed by the seller to be sound, free from natural defects, that can be finished at a minimum cost, and sold to the consumer as sound marble.

GROUP B—Any marble or stone sold to the trade in slabs or blocks of fair or medium size, generally rectangular shape, guaranteed to be sound and free from natural defects, the finishing of which, because of texture, the size of slabs, the shape and size of blocks, is somewhat more expensive than those in Group A.

GROUP C—Any marble or stone that cannot be sold as sound but contains a minimum amount of natural defects, such as dry seams, old fractures, partially or completely healed surface voids, etc., to be treated by the manufacturer in the most approved manner, reinforced where necessary by liners on back or metal inlays and sold to the consumer as semi-sound marble.

GROUP D—All marble, stone and so-called serpentine marbles, and Onyx, which, by their peculiar formation are known to be fragile, such as Breccias and nearly all highly colored marbles and serpentine, and that are sold to the trade in irregular shaped blocks or slabs without a guarantee as to their soundness, treated by the manufacturer in the most approved manner, reinforced where necessary by liners on back or metal inlays and sold to the consumer as unsound marble.

Royal Rouge—Group A.

Island Home Pike Quarries, near Knoxville, Tennessee.

Reddish-brown, with dark brown veins and slender markings. (Watson.)

Royal St. Remy

St. Remy Quarries, Rochefort, Namur, Belgium.

Rich reddish-brown, with clouded gray and white veins.

Royal Veined White

Quarried near Stukely, Shefford County, Quebec Province, Canada.

White irregularly banded and clouded with light greenish-gray veins.

Rozonago Red—See Famosa Red.

Ruban Bleu

Quarried near Ardinghen, Pas-de-Calais, France.

Grayish-white with bluish-white ribbons or bands. (Blagrove.)

Rubanne

Same as Swiss Cipollino.

Rubio

Quarried at West Rutland, Vermont.

Delicate pinkish tint with thin placated greenish veins.

Rubreville—See Lumachelle des Argonne.

Ruhpolding Marbles

Quarried near Ruhpolding on the River Traun, Upper Bavaria, Germany.

They are known by the following names, which are taken from "British and Foreign Marbles and Other Ornamental Stones," by John Watson:

Ruhpolding Dark Red—Dark red or dark brown with occasional light reddish-brown patches.

Ruhpolding Fiery Red—Bright red with slightly mottled appearance.

Ruhpolding Light Red—Light brownish red with numerous white veins and a few light brown markings.

Ruhpolding Red and Green—Light grayish-red with green veins.

Ruhpolding Rose—Fawn colored with distinct crimson shade, a few white veins and some black irregular thread-like markings.

Ruin Marble (Breccia)

See Alberese di Mugnione
Alberese di Rigvano
Alberese di Vichio

Russ Marbles

These marbles, quarried in Vosges, France, contain numerous fossils.

Russ Brun is brown and Russ Vert exhibits mingled shades of brown and green. (From George H. Blagrove's "Marble Decorations," page 106.)

Russian Malachite

Medno-Rudiansk Mines, Nizhne Tagilsk, Perm, Russia.

Notwithstanding that according to R. Murchison, "Geology of Russia," Vol. I., page 374, a cross-section of this deposit is not more than eighteen by nine feet, extending to a great but unknown depth, large masses have been excavated and sent to all parts of the world. It is used principally for table tops, vases, and personal ornaments.

Banded with various shades of green.

Russian Marbles

See Esthonia
Gray Ural
Podolsk
Reval
St. Koloma
Tula
White Ural

Russian Urals, Malachite—See Russian Malachite, which is found in the Ural Mountains.

Ruszikaer

Quarried near Ruszika, Hungary.

Dull white, with occasional faint gray veinings.

Takes a good polish. (Watson.)

Rutland Building Marble

Vermont Marble Company's Quarry, West Rutland, Vermont.

There are several subvarieties of this marble, all of which are white and generally without much veining.

Rutland Italian

Quarried at Rutland, Vermont.

Faintly bluish-white with faint irregular grayish and yellow-brownish mottlings.

Rutland Second Statuary—See Second Statuary Rutland.

Rutland Top White or Top White.

Quarried at Rutland, Vermont.

Creamish-white, but does not polish well.

Takes a low polish.

Ruvara

Monkton Quarry, near Monkton, Addison County, Vermont.

Rather light red in which is included very numerous small and flesh-colored areas.

Takes high polish.

Rylstone

Quarried near Rylstone, New South Wales, Australia.

Gray, with white wavy veins. (Watson.)

Sabalgarh

Gora Quarries, Sabalgarh, Gwalior, Central India.

Irregular concentric bands of orange, green and red, embedded in a ground-mass of light buff.

Takes a good polish. (Watson.)

Sable

See Noir de Sable.

Sagyin Quarries

See Mandalay White.

Saillon Quarries

See Cipollino Swiss.

St. Albans

The quarries producing the Champlain or Swanton marbles are located between St. Albans and Swanton, Vermont.

St. Ambrogio

Same as Yellow Verona.

St. Ambrosio

Quarried near Verona, Italy.

Light mahogany or reddish brown, with oval patches of light red. (Blagrove.)

Is obtainable in large sizes.

St. Andre

St. Andre Quarries, Ain, France.

White with fossil markings. (Blagrove.)

St. Anne Grand Dessin or *St. Anne Grand Francais*.

Quarried near Arudy, Basses-Pyrenees, France.

Gray with numerous white veins and markings. It also contains a few fossils. (Extract from Watson.)

St. Anne Granit

Quarried near Arudy, a small town at the entrance of the Vallee d'Ossau, Basses-Pyrenees, France.

Gray, closely packed with small encrinal ossicles. In general appearance it somewhat resembles a gray granite; hence the name. (Watson.)

St. Anne Marbles

Many marbles of various shades commercially known by other names, sometimes called St. Anne.

St. Anne

The principal quarries are at Gougnyes, near Charleroi; and at Biesme, Namur, Belgium.

Dark gray with light gray and white markings.

St. Anne Rubane

Quarried near Arudy, Basses-Pyrenees, France.

Rather dark gray, white veins and markings.

St. Aubin

See Noir Veine.

St. Beat or *Blanc de St. Beat*.

Quarried at St. Beat, Haute Gironde, France.

White Statuary.

St. Beat (Gray)

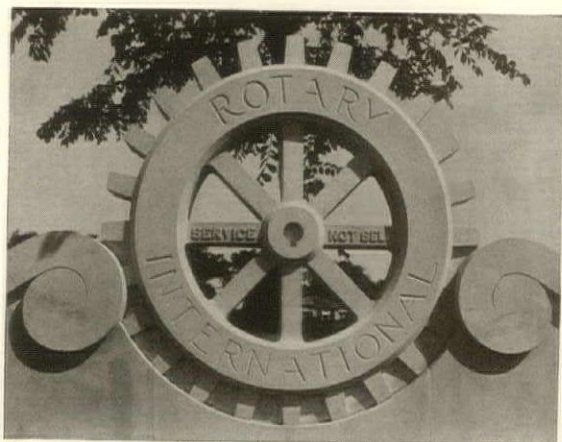
See Gris de St. Beat.

St. Beaume

Quarried near Brignoles, Department of Var, France.

Mottled white and yellow with fine red markings.

Takes high polish.



DETAIL OF ENTRANCE TO ROTARY PARK, OKLAHOMA CITY, OKLAHOMA.

BAILEY AND ALDEN, Architects.

The entire double entrance is built of Imperial Gray marble quarried and finished by the Carthage Marble and White Lime Company.



CARTHAGE MARBLE AND WHITE LIME CO.
CARTHAGE :: MISSOURI



LOBBY OF THE FEDERAL RESERVE BANK OF CLEVELAND, OHIO

WALKER & WEEKS, Architects

This beautiful corridor, full of life and color, is made doubly effective by the choice of marbles used.

These marbles were installed by The Haworth Marble Co. The standing marble is Old Convent Siena. The floors are Tavernelle Tennessee, with Belgian Black Strips.

THE HAWORTH MARBLE CO.
CLEVELAND - OHIO



Interior of the Taylorsville, Kentucky, Bank

This marble treatment offers a suggestion for the small bank. It is a combination of Alabama and Verde Antique marble, forming an effective contrast and a maximum of dignity.

PETER & BURGHARD
STONE COMPANY
LOUISVILLE KENTUCKY



INTERIOR ADDITION TO THE COLORADO NATIONAL BANK, DENVER, COL.

M. H. HOYT and B. HOYT, Denver, *Architects*
ALEXANDER SIMPSON, JR., Co., Denver, *Gen'l Contractors*

This lavish marble treatment was fabricated by the Gray Knox Marble Company and erected for them by us.

Hauteville marble was used for the standing columns, banking screen, seats and officers' island. The floor is of Gray Tennessee marble.

SALOMONE-O'BRIEN MARBLE CO.

KNOXVILLE - - - TENNESSEE