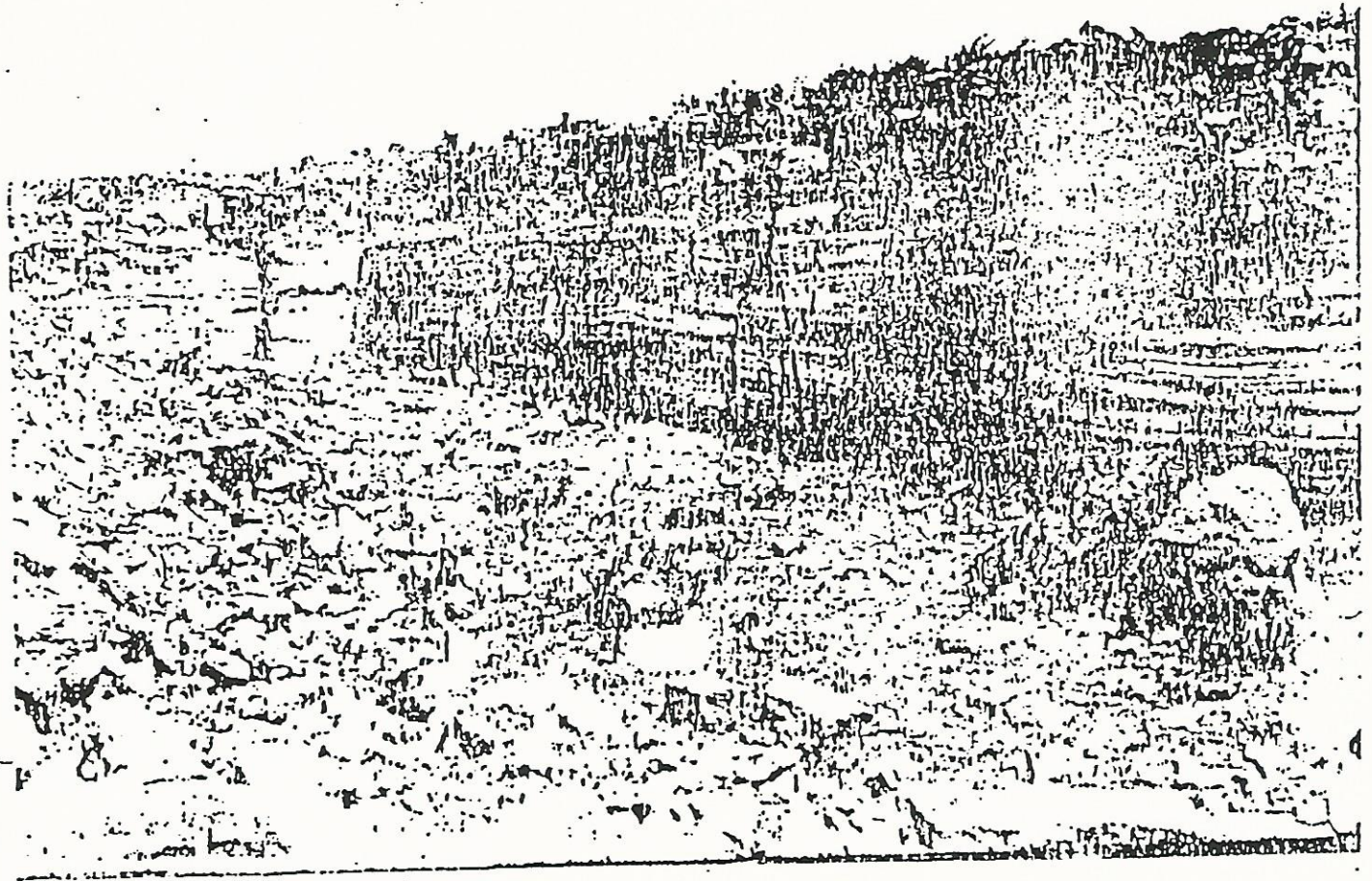


Onyx Quarry At Mayer



There Were Exquisite Stones — In As Many Colors And Shadings As The Rainbow

Reading the old news stories about the onyx mines near Mayer is really enjoyable. The stories are like all the other news about mining, except there's something that makes them seem lighter. There's a touch of joy in the onyx stories.

IN ANALYZING the difference between onyx stories and gold or silver mining stories, one becomes aware of the descriptions in the onyx stories. All the old miners knew what gold and silver looked like, and they names themselves described the color. But not everybody knew what onyx looked like, and there are many beautiful descriptions.

There's a March, 1900 newspaper article: "Within talking (sic) distance of Mayer lays one of the greatest and most beautiful deposits of onyx in all the known world. So much prominence in the past has been given

this particular industry in so far as the magnificence of its beds go, and the sale thereof a few years ago for a vast sum, that the future of the same will be mentioned again, and likewise will the uncovering of additional and new ground be lightly spoken of.

"IT IS stated on reliable authority that the Arizona Onyx company has lately decided to resume work at once, and for the purpose of successfully operating and carrying out the object of the work outlined some months ago, will erect new buildings equipped with modern machinery to handle the product, in sawing and polishing the same.

"The cost of the plant is said to be over \$50,000. When under headway a large force will be maintained, and in consequence will Mayer corre-

By Claudette Simpson

spondingly prosper. The ground covered by this company is of great area, some 300 acres, and averages in depth of onyx over thirty feet.

"IN LINE with this industry may also be mentioned the recent discovery in adjoining ground of another onyx deposit of some 120 acres in extent, by Daniel Bowen, that is creating a great deal of interest in the variety and quality of the deposits uncovered. On claim No. 1, which adjoins the original location, and laying below, down the hill, concealed under the grass roots and soft loam, some of the most beautiful and variegated stone ever placed before the eye is being quarried. Exports pronounce the product here to be the finest on the mesa, and samples on exhibition certainly bear

out this assertion.

"On claim No. 2 another specie of onyx has also been recently uncovered of an African or bandit grain, as it is called. Nothing but this variety has been uncovered on this claim. On claim No. 4 another surprise meets one in one's ramblings in beholding a distinctive type of the wonderful things of nature, in the shape of block onyx, that is as bewildering as it is beautiful. Many who have seen this particular stone seem to have a decided preference for it over all others.

"...THE GROUND under which the onyx lies can be driven over in a buggy, and if not familiar with the formation, and the fact that under the soft dirt lays the onyx in gigantic slabs, a stranger would certainly be in ignorance of the existence of the product, so smooth and soft is the soil."



Onyx quarries taken about 1900. Photos courtesy of Sharlot Hall Museum.

Experts On Onyx Were Astonished

Continued from Page 3

It's difficult to tell just reading old newspaper clippings, who owned the mine when. Each clipping seems to be telling about the sell and the new owner of the Big Bug onyx mine. One article is dated August, 1890 and tells how a Mr. Smith of Los Angeles purchased "220 acres of the most beautiful onyx that every pleased the eye of man. Red, green, blue, old gold, pink, white, black, translucent, variegated in every variation, the onyx is found covering this area to an unknown depth, and while the owners of the only other onyx quarry in existence — the one in the State of Puebla, Mexico — were growing rich by selling their stone at from \$8 to \$20 a cubic foot, hundreds of persons passed over this deposit to admire for a moment the wonderful beauty of the rock and then cast it away as worthless, until last February, when Al. and George McCann, William O. O'Neill and John W. Dougherty located it in a vague, speculative sort of way,

trusting that the future would develop some way in which its products could be utilized. A few samples sent to Chicago astonished the experts of that city, where \$100,000 of Mexican stone had been used in the interior decorations of the just then completed auditorium.

"NOTHING of the kind used in that building, in color or texture, could compare with the Arizona stone, while the flaws that made the Mexican stone so defective were totally missing. Both Chicago and New York experts on onyx were sent to the Territory, and all were astonished not only at the extent of the quarry, but also at the fact that the onyx was in regular quarry formation, something never before known, as in Mexico it is only found in boulders.

"The long accepted theory that the stone was primarily formed in the shape of stalagmites and stalactites was upset, and the only explanation that could be advanced to account for the Arizona freak of a regular

quarry of onyx — just like sandstone or granite — was that the valley in which it was located had at one time been the basin of a lake formed by a spring whose waters were strongly impregnated with lime to form the body of the stone, and with iron, gold, copper and other minerals to color it, and then centuries evaporation under the burning suns of Arizona did the rest, and as a result gave a quarry that rivals in its beauties of colors the glories of the opal."

AND THE article concluded with the statement that the present owners expect to make a fortune from the mine. That sentiment, in one way or another, was expressed in every article that told about the mine being sold. When local people think of the onyx mine, they think of Buckey O'Neill and Joe Mayer and Joe Dougherty. Back when the onyx quarry was in operation, there were many who told the story of how they

almost got in on onyx deals, but didn't quite make it.

Here's a clipping from the September, 1903 Prescott Courier: "Onyx is being shipped from the quarries near Mayer to London, England. The late 'Buckey' O'Neill was the first man who brought these quarries into prominence, and the Courier man came very near making a sale of them at one time for 'Buckey;' a knocker knocked us out."

SHARLOT HALL traveled by train from Prescott to Mayer to see the onyx quarries. She wrote a delightful account of her trip in the July 10, 1899 Journal Miner. She described the scenery on the way there, the town of Mayer and the onyx cliffs. Then she wrote: "An engine and huge derrick for lifting the giant blocks was in place at the largest claim but no stone was being mined so we could not guess at the

Please turn to Page 5

Mayer Onyx

Continued from Page 4
methods.

"Down under the trees one of the original locators, Dan Bowen by name, had a polishing factory all his own and with the aid of the most primitive tools was turning out small but exquisite specimens in as many colors and shadings as the rainbow. We were shown onyx, black, white, green, dappled, satin onyx, crystal onyx, pebbled onyx, surely every combination that nature could devise and all beautiful."

ANOTHER newspaper article written in 1894 described polished onyx from a quarry on Sycamore Creek, 55 miles from Prescott, as being "many colors — chocolate, slate, cream, lavender, red — in fact, no two pieces are alike, though all are beautifully mottled and show an infinite variety of curious designs."

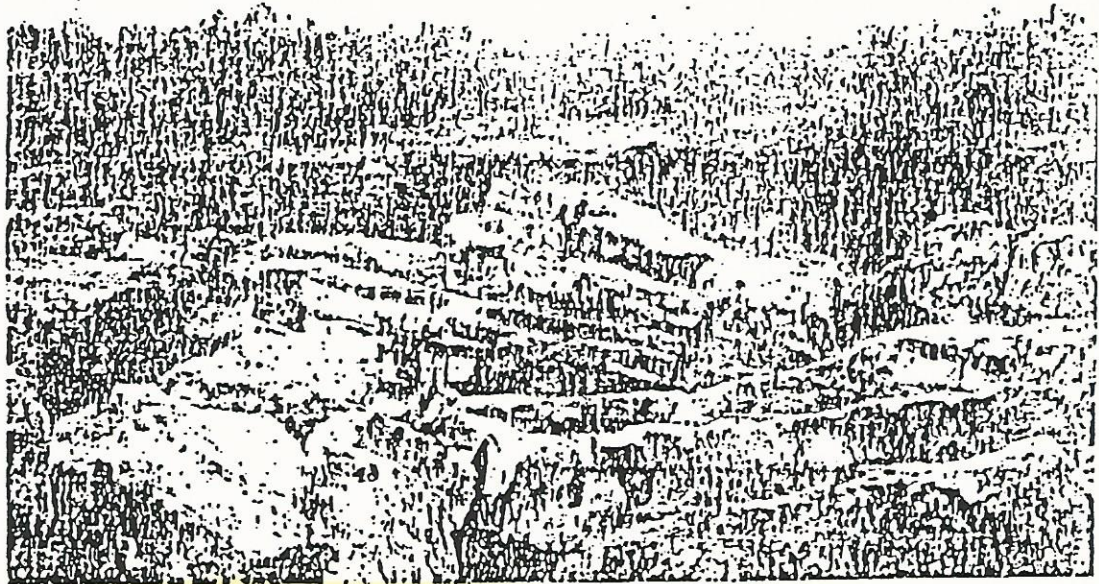
One article told about the largest slab of onyx taken out in one piece. It was from the O'Neil ledge and measured 23 by 10 feet, and 26 inches thick. "The stone from this claim is very fine grain and takes a much higher polish than the celebrated onyx of Mexico, and it contains colors that were exhausted many years ago in the Mexican mines."

There are many more articles about the onyx quarry near Mayer. And nearly all of them mention the beauty and the many colors of the precious stone.

It's almost like reading about a rainbow.



John Dougherty pictured at Onyx mine, discovered about 1889.



Onyx Mine at Mayer, once owned by Buckey O'Neil, Joe Mayer and Joe Dougherty.

GENUINE YAVAPAI COUNTY ONYX

Quarry at Mayer, Arizona

A FLOURISHING INDUSTRY AT MAYER, ARIZONA

Finishing Plant, Dubuque, Iowa

Just about one year ago the Yavapai Onyx Mining Corporation commenced operations. All of the property on Big Bug Creek, approximately 320 acres, is now owned by the Corporation. A number of new openings have been made and the last two car loads of onyx shipped to Dubuque, the headquarters of the company, came from an opening on the extreme opposite side of the original quarry. The company maintains a force of men at Mayer and development work is carried on continually. According to the statement of the company, they have estimated themselves that there is a tremendous quantity of high grade onyx in the acreage.

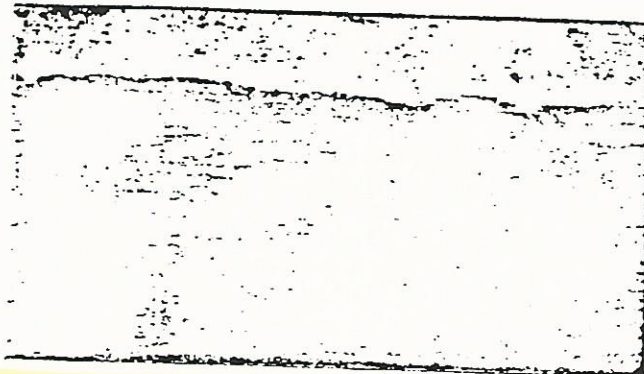
Finishing Plants at Dubuque, Iowa

The onyx is not sold in the rough state and what is taken from the properties is brought to the finishing plants in Dubuque, where it is made into lamps, candlesticks, bowls, table tops, book-ends, fire places, lamp bases, ornaments of different and gear shift balls for automobiles.

Products Sold Throughout the World

The onyx gear shift ball has become tremendously popular, and is now being sold in all parts of the world. It has found favor in Japan, Portugal, Cuba, Sweden, Norway, The Argentina, Hawaii, and even in the far away Kingdoms of the Straits Settlements.

The Yavapai Onyx Mining Corporation



Quarry at Mayer, Arizona, from which Onyx is shipped to Dubuque, Iowa, where it is manufactured into various articles. Ninety-four million tons in quarry by government estimate.

The corporation markets the stone under the trade name of GENUINE YAVAPAI ONYX. Already, some of the larger and more discriminating users of onyx prefer the Genuine Yavapai Onyx to that coming from Mexico and Brazil.

One large manufacturer has offered to contract for \$50,000 worth of onyx during 1925, provided the company gives him the exclusive use in his field. He has never used more than a few hundred dollars worth of onyx per year in the past.

Easily Worked

The company has found the Genuine Yavapai Onyx singularly pleasant and interesting material to work. Each new carload of stone brings colors and markings even more beautiful than preceding ones, and the workers take great pride in finishing the stone so that every detail of its beauty is

emphasized. The officers of the company state that they consider it a privilege and a pleasure to furnish Genuine Yavapai Onyx into the things of loveliness and use.

New Manufacturing Church Goods

In addition to the uses mentioned, the Yavapai Onyx Mining Corporation is supplying some of the church goods manufacturers with columns of varying lengths and diameters for altars, rails, baptismal fonts and candle sticks.

Almco Lamps to Use Yavapai Onyx During 1925

The Art Lamp Manufacturing Company of Chicago, manufacturers of the Almco Lamps, and perhaps the largest lamp manufacturer in the world, has contracted to use the Genuine Yavapai Onyx

on their plated lamps for the entire year of 1925.

National Advertising for Us

These lamps retail as high as \$500.00 each. This company will agree to mention Genuine Yavapai Onyx in all their national advertising for 1925. Their ads will appear in the following magazines: Vogue, House and Garden, Liberty, Good Housekeeping, as well as their full page ads running in newspapers as the Chicago Tribune.

New Crushing Plant to Be Erected at Mayer

The Yavapai Onyx Mining Corporation now intends to erect a crushing plant at the mines at Mayer for the purpose of crushing onyx for stucco dash and terrazzo flooring. This plant will be in operation within the next ninety days.

Will Make Stucco Dash and Terrazzo Flooring

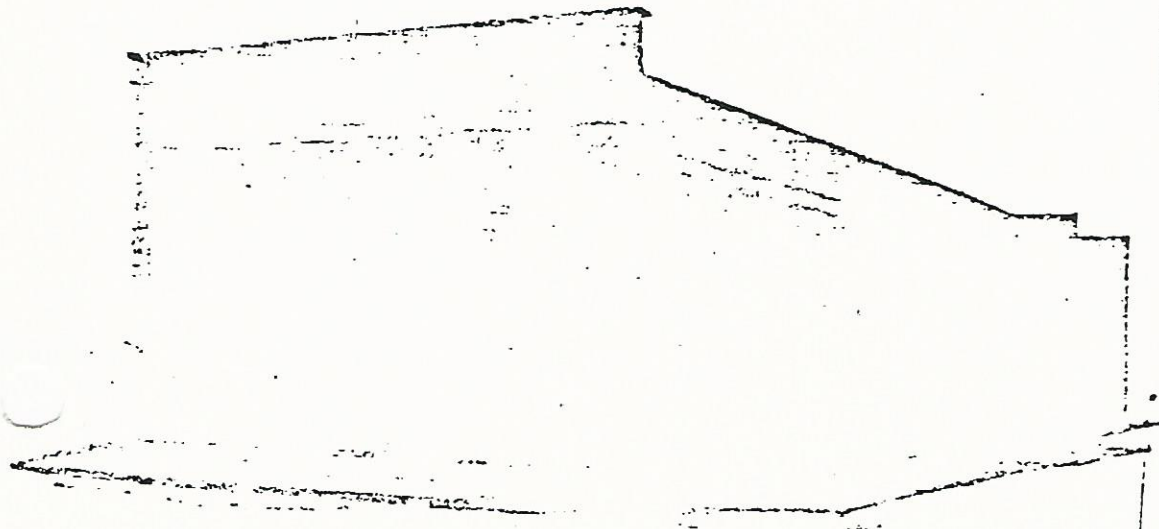
Samples of the Genuine Yavapai Onyx stucco dash have been submitted to the trade in San Francisco, Los Angeles and San Diego and the company have now made inquiries for carload lots and less than carload quantities.

Personnel of Company

The Yavapai Onyx Mining Corporation, whose main plant is at Dubuque, Iowa, with the mines located at Mayer, Yavapai County, Arizona, about thirty miles from Prescott, the county seat, is particularly fortunate in the experienced men who are the officers of the company. Joseph A. Kellogg is the president; J. H. Devane



Factory of the Yavapai
Onyx Mining Corporation
at Dubuque, Iowa



MAYER ONYX QUARRY BEING ACTIVELY DEVELOPED BY THE YAVAPAI ONYX CORPORATION.

Excellence of Mayer Onyx Attracting National Attention.

BY JOHN L. SULLIVAN

Successful strides are being made in the development of the Mayer Onyx quarry, in Yavapai county, through the splendid energy of the Yavapai Onyx Mining Corporation, with John A. Kelly as the president and active manager. It is interesting to note that it was through an inquiry answered in the offices of the Yavapai county chamber of commerce and immigration commissioner, that brought about the organization of this company in 1926.

A trip to Dyersville, Iowa, and a inspection of the factory for the finishing of this semi-precious stone from Yavapai county, would be more than a surprise to the average person.

Approximately one hundred men are employed in the plant and the building is equipped with the very latest and most modern grade of machinery for shaping onyx into various novelties and articles of

It is shipped to Dyersville from the mines at all sizes and quantities. The Yavapai Onyx company has its own truckage, and the onyx is loaded right in the factory. It is finished by various processes which have been created and are used exclusively by the Yavapai Onyx company. The onyx is cut, shaped, finished and inspected and shipped to various parts of the world.

The factory is equipped to fill any order, no matter how complicated, from a ball used as an ornament on the gear shift or motor-plate of an automobile, to large pieces which are now being used in the more exclusive and higher class buildings.

The most interesting thing about the whole developments is that since the market for Yavapai onyx has been created, various companies are attempting to imitate and compete with the Yavapai Onyx Corporation, but thus far no onyx has been produced that compares at all favorably with the onyx from Yavapai.

The nearest approach to the onyx from Mexico, is the various colorings of Yavapai onyx.

According to Mr. Kelly to the best of the Yavapai Onyx Corporation, the writer

spent two days in that city, where contracts were closed for the year with various concerns, in excess of \$125,000.

The success of the Yavapai Onyx Corporation is entirely due to the untiring efforts and zeal of Mr. Kelley, who foresaw the possibilities of this stone. From present indications, the business for the year 1927 will reach \$1,000,000. Seven automobile concerns are using Yavapai onyx either as specifications for their car, or as optional equipment. The product is found in many churches throughout the world, because of its ornamental value. The Art Metal Lamp company and Kaplan & Company, two of the largest

the company itself manufactures various novelties, including lamps, office novelties, church goods, candle sticks, jewel cases and the like.

Up to the present time the company has been unable to branch out with additional novelties, because of the limited capacity of the plant, and the fact that orders began coming in as soon as the material was shown to the public. However, plans are under way now for additional articles, both of utility and art. Among other things, it is contemplated to place a door knob, of unique design, on the market.

Yavapai onyx has attracted the attention of at least two of Amer-

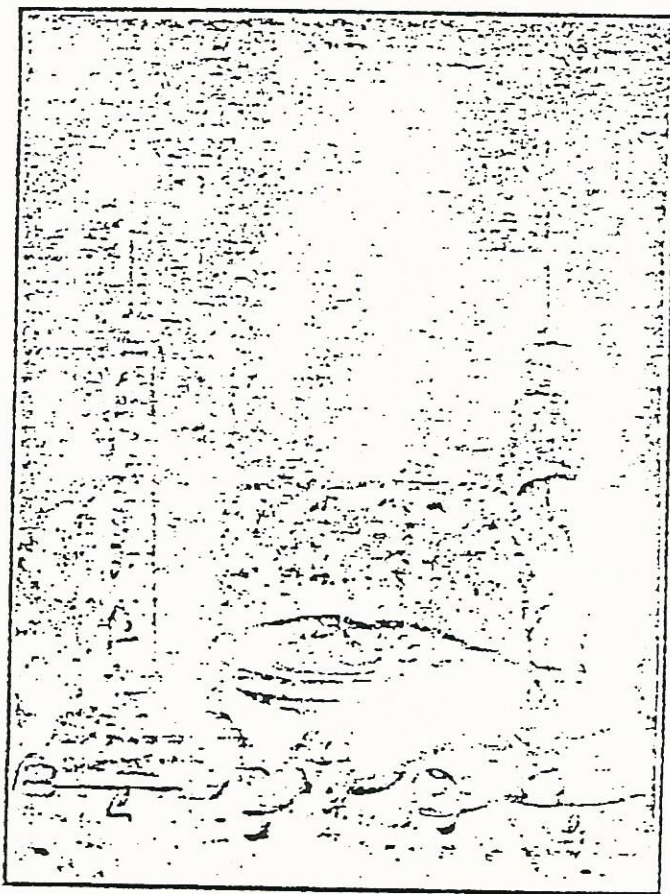
Rapp, well known architects of Chicago, who are now constructing a beautiful and unique hotel at Jersey City, and also a large theater in Brooklyn have specified Yavapai onyx. Mr. Hunt is using the Yavapai onyx in the proposed Seattle theater, which will be the largest and most beautiful theater in the city of Seattle.

Probably the most impressive and magnificent building in Chicago today is the building known as the Nine Hundred, North Michigan. This structure, of considerable height, is located on Michigan avenue, directly opposite the Drake Hotel, and the facing on the entire ground floor is of Yavapai onyx. It has attracted wide-spread attention and numerous inquiries have already been made concerning the source of this beautiful stone. The stone used in this building is entirely of the red variety, with its natural design which looks similar to the coloring in a Paisley shawl.

Recently, at the Mayer quarry where steam shovel operations are being used and additional development being pushed, more beautiful onyx has been uncovered than any heretofore disclosed. The predominating color and background is green, with a multi-colored combination throughout.

Yavapai onyx is conceded to be the most beautiful of all stones of a semi-precious nature yet discovered. And this is largely due to the many and varied colors that each piece of it, no matter how small, contains. The prevailing colors, however, are pink, red, green, brown and a greenish white.

The Yavapai Onyx Corporation owns approximately 400 acres of Mayer, about thirty miles from Prescott, nearly all of which is patented. This mining property has had an interesting past from the stand-point of mining, promotion and prospecting and it has changed hands several times. The claims were originally located by Joseph Mayer. A short time thereafter, Bucky O'Neill of Reno, Nevada, became interested in the property, and he, in turn, interested a group of capitalists from New York. At one time the property was bought by the



Finished products from the Mayer Onyx Quarry.

lamp makers of exclusive lamps in the United States, are using Yavapai onyx in floor, bridge and table lamps. Two of the largest pen manufacturers of the country are negotiating for the exclusive use of the onyx as the basis for desk sets. In addition to these,

the city's greatest architects, Mr. Jarvis Hunt, who designed the Union Depot at Kansas City, is interested in the Mayer onyx to such an extent that he has included it in the specifications of the construction of several office buildings and theaters. Rapp

Onyx marble.—Near Mayer, on the left bank of Sigouz Creek, is a considerable deposit of onyx marble, small portions of which are of a quality that renders it suitable for a decorative stone.

The deposit, which covers an oval area about three-quarters of a mile long by less than half a mile broad, is superficial and varies in thickness from a thin layer on the crown of the hill to a maximum of about 25 feet on the bank of the creek. The geologic nature of this deposit has been described above. Many prospecting pits have been sunk on it in all parts of the area, and a quarry was opened in one of the thicker portions, but very little has been shipped and no work was being done when it was visited. U.S.G.S. File 126 P. 11

The onyx is extremely variable in color and texture. Most of it is white or pale green when fresh, but weathering has produced variations of color which give it most of its decorative value. The structure is distinctly banded, the individual bands varying in thickness from $\frac{1}{8}$ inches to a fraction of an inch. The broadest bands are coarsely fibrous, are transverse to the bedding, and consist of aragonite. Many large blocks cut in the quarry

are almost wholly of material of this character. The water part of the onyx is in thin bands of wavy cross section, not distinctly fibrous, and composed of calcite. The calcite has been shown by analysis to contain a small amount of ferrous carbonate, and this tends to give the onyx a pale sea-green color when fresh. Oxidation of the iron, however, sets free either brown limonite or deep-red hematite, and this powder remains suspended as a coloring matter in the calcite, giving brilliant color contrasts against the white or green original material. Pale-pink and salmon tones are also occasionally developed, and rarely the whole mass of the onyx is in alternating layers of black and white.

The more massive portions of the deposit are chiefly white, and while large blocks may be obtained, the lack of color variety makes it less decorative. The most valued variety is the green with red and yellow banding, and large blocks of this color are difficult to obtain.

The chemical change by which the iron contained in the carbonate has been set free without breaking down the texture of the calcite as a whole has been studied particularly by Merrill (Report U. S. Nat. Mus., 1893, pp. 539-585), whose analyses of the unoxidized, green onyx and of the oxidized, brown material are here reproduced.

Analyses of onyx marble from Mayer.

	I.	II.	III.
CaCO ₃	98.92	98.50	98.82
MgCO ₃56		.53
FeCO ₃	5.30	5.31	4.06
Fe ₂ O ₃			1.72
SiO ₂05		.05
H ₂ O.....	not det.	.40	not det.
Total.....	100.04	99.41	100.19

I and II. Onyx marble, green, Mayer, Ariz.

III. Onyx marble, brown, Mayer, Ariz.

The oxidation process, as shown by these analyses, has been accompanied by little or no accession of iron oxide, and the calcite is still present in the original form. The process takes place from the surface, along flaws, which permit freer movement of the oxidizing solutions, and along individual bands which may be slightly less dense than others. The illustrations in Merrill's description cited above show this process admirably. Where complete oxidation of the iron has taken place and the whole mass has been changed to red or brown calcite it becomes quite opaque, and while the stone then has a new and very unusual color effect, it is not in demand by workers of this material. Probably it is the prevalence of these limonitic bands, which make it difficult to obtain large pieces of light-colored material, that has led to the practical abandonment of this property.