

SEPTEMBER 1991

# THE ROCKFINDER



Margaret Heinek  
Michiana Gem & Mineral Society  
7091 E. East Park Ln.  
New Carlisle, IN 46552

**FIRST CLASS MAIL**

Midwest Federation  
Convention  
Hosted by The Michiana Gem & Mineral Society  
August 30-31-Sept. 1, 1991  
South Bend, IN

MICHIANA GEM AND MINERAL SOCIETY

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The MICHIANA GEM AND MINERAL SOCIETY, a non-profit organization, is affiliated with the MIDWEST FEDERATION OF MINERALOGICAL AND GEOLOGICAL SOCIETIES and with the AMERICAN FEDERATION OF MINERALOGICAL SOCIETIES.

Regular Meetings

Time: 2:00 p.m. EST	Place: Westminster Presbyterian Church
Fourth Sunday of each month	1501 W. Cleveland Road
June-Field trip meeting	South Bend, Indiana
July-No meeting	West of St. Joseph River
August-Annual club picnic	
December-Date to be announced-Christmas Party	

Dues

Individual	\$6.50 per year
Family	10.00 per year
Junior	2.00 per year

Rockfinder Staff

Editor.....Joyce Larson	144 Spruce Dr., Westville, IN 46391
Co-Editor.....Margaret Heinek	7091 E. East Park Ln., New Carlisle, IN 46552
Staff.....Bob Heinek	
Club Members	

All contributions for publication should be in the hands of the editor by the 10th of each month.

Permission is hereby granted to reprint, at any time, items published in the ROCKFINDER provided due recognition is given.

# THE ROCKFINDER

VOLUME 31  
PUBLISHED BY: MICHIANA GEM AND MINERAL SOCIETY

NUMBER 7

SEPTEMBER 1991  
SOUTH BEND, IN

MEETING: September 22, 1991  
Doors open 1:30 p.m.  
Meeting at 2:00 p.m.

PLACE: Westminster Presbyterian Church  
1505 W. Cleveland Road  
So. Bend, IN  
West of the St. Joseph River

PROGRAM: Slides of the Convention  
Presented by - Bob Miller  
Photographer - Tom McLaughlin

HOSTS: My apologies for not  
having the names of our  
hosts for this month.  
I know we will have some  
and will announce their  
names at the meeting.  
Sorry!

## A ROCK

I am but a humble rock, a beauty God  
has wrought.

They say the Church was built on me,  
That I'm far mightier than the sea.  
Some folks look and toss me aside,  
While others cherish me with pride.  
Time passes on as time must do,  
And when man's life on Earth is through,  
In loving memory of the dead,  
A rock is placed above the head.

(via Rock Rustler News and G.I. Nugget)

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## NEW ADDRESSES:

Sister Georgia Costin  
Sister Jeanne Finske  
Lourdes Hall - St. Mary's College  
Notre Dame, IN 46556

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## COMING EVENTS - SHOW SCHEDULES

September 21 and 22:  
Three Rivers Gem & Mineral Soc.  
Expo 1 Memorial Colliseum  
Parnell & U.S. 30 By-Pass  
Ft. Wayne, IN

September 28 and 29  
Elgin Rock & Mineral Society  
Hennens Exhibition Hall  
150 Dexter Ct.  
Elgin, IL

October 12 and 13:  
Joliet Gem Club  
Joliet Jr. College  
Joliet, Illinois

October 18, 19 and 20:  
Lake Cty. Gem & Mineral Soc.  
Mundelein Holiday Inn  
Rts. 45 & 83  
Mundelein, Illinois

(More listings on Page 4)

MARGARET'S COLUMN

As I am writing this before the start of the show, I do not know how well we did, but I am sure everything went well. I want to thank all of the club members for the work they did to make this a "classy show".

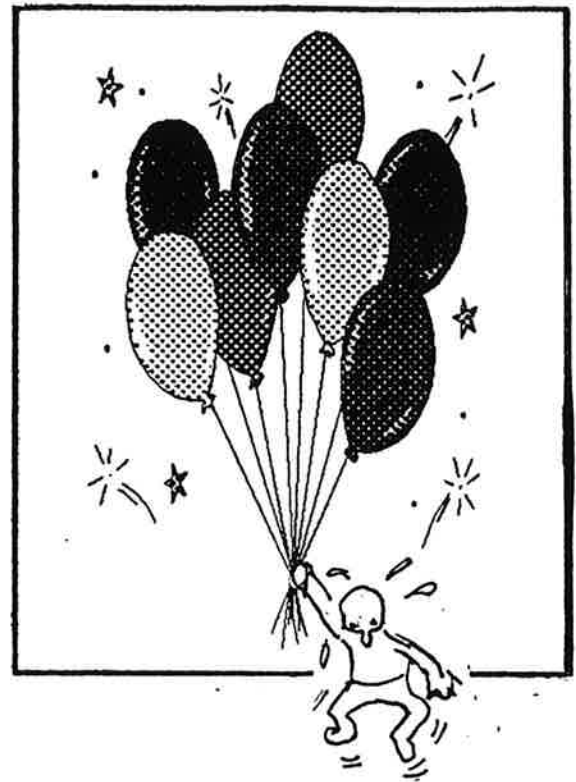
Bob and I will leave for the National Convention in Tampa, Florida about the 9th of September. Before we go, we have been asked to give a program to the South Bend Audubon Society at 2:30 on the "History of the Great Lakes" and a film on "Fossils and the Story They Tell".

Bob Miller will be in charge of the September meeting and there should be some show reports. The program will be films of our show. Tom McLaughlin will be the "official photographer" this year and will take slides for the program. I am anxious to see them too, but will have to wait until later to view them.

How can I thank you all for your help in this convention, so many have helped and done their jobs, I am afraid I will slight someone. You know who you are, and how much you have done, so a GREAT BIG THANKS! This is your club. If we have made a profit, there will be a trip for the club members to a museum I have heard about in Michigan. I understand it is really a wonderful place to visit.

This year when we go to Florida, I will be on the Rules committee, and we will try to finalize the plans to print a new rules book. This has been in the planning stage for several years and hopefully the committees will get the working of their section of the book ready for printing.

Bob and I will see you in October after returning from our trip south. We would like to stop in North Carolina and do some rock hunting. We hear the ruby hunting is



not too good now, but there are some mines around Spruce Pine that have some aquamarine, moon stone and maybe some emerald. As this is the area my mother came from and I do genealogy, we will do both hunting for rock and ancestors. Nothing like doing two things at once!

*Margaret*

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SPECIAL DAYS FOR CELEBRATING-SEPTEMBER

Birthdays: Paul Stone..... 8  
 Don Erb.....18  
 Gertrude Orrell.....19  
 Tom Fields.....21  
 Kenny Zeiger.....26

Anniversaries:  
 Patt & Tom McLaughlin... 1  
 Paul & Lorraine Crum.... 4  
 Ossie & Jo Kytta.....29

MINUTES - AUGUST 1991

Margaret Heinek opened the annual picnic, August 4th at 1:00 p.m.

Sister Georgia Costin gave the prayer.

Marie Crull introduced their friends, Marcelle and Al Nagy who are new members in the club.

Dewey Hassler is ill at home. Hope he is better so he can enjoy our show.

Margaret thanked members for folding programs for our show. Also thank you to Bob Miller.

Margaret updated everyone on our upcoming show plans.

Also, our new patches and pins have arrived so please contact Margaret if you want to purchase them.

Patches are.....\$4.00  
Pins are.....\$3.50

Kevin Klodzinski was a special person at our picnic. He won Reserved Grand Champion on his Geology project at the 4-H Fair. Congratulations Kevin!

Kathy Miller asked for sign-up for the club booth, door, kiddies corner and silent auction. If you can work please call Kathy.

28 members attended our picnic. The weather was very nice and enjoyed by all.

Please add the following addresses to your directories:

✓ Al & Marcelle Nagy  
730 E. Oakside  
South Bend, IN 46614 (233-4600)

✓ Robert Steel  
1308 White Oak Drive  
South Bend, IN 46617 (233-5572)

Respectfully Submitted,

Marie Crull, Secretary

SHOW COMMENTS!!!

"Just want to tell you that all of us appreciated the hard work and long hours you all had to put in!. They certainly paid off -- you had a beautiful show!.

The facilities for all the activities, the meals, the lovely table decorations and clever favors, along with the dealers and displays, and the wonderful "Hoosier Hospitality" of your members -- all these combined to make a super show.

Thank you all!

Diane and Jack Dare --  
M W F Executive Committee Members  
A F M S President.

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Geodon also thanks the club for a great show.

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NEW MEMBERS TO ADD TO YOUR DIRECTORIES:

✓ Jim and Kay Sharp  
254 Boston Avenue  
Elyria, Ohio 44035

✓ Candace Corson and George Knowles  
(Ben age 12, David age 10, Dan age 6 and Tom age 4)  
16641 Brick Rd.,  
Granger, IN 46530 (273-1763)

✓ Deb & Ray Kirchhofer  
52026 Hollyhock  
So. Bend, IN 46637 (277-5683)

✓ Cheryl & Joseph Milchak  
95 E. 652 North  
Valparaiso, IN 46383 (464-8697)

✓ Ozzie and Josephine Kytta  
1501 N. Wellington,  
So. Bend, IN 46545

ADDITIONAL SHOW LISTINGS:

October 12 and 13:

Blackhawk Gem Show  
Masonic Temple  
420 18th Street  
Rock Island, IL

October 11, 12 and 13:

Michigan Mineralogical Society  
Detroit Light Guard Armory  
4400 E. Eight Mile Road  
Detroit, Michigan

October 19 and 20:

Earth Science Club  
Keeling Center  
375 Oswego Street  
Park Forest, Illinois

October 19 and 20:

Kenrock Gem & Mineral Society  
Kenrock Community Center  
3218 11th St.  
Rockford, Illinois

October 25, 26 and 27:

Central Mich. Lapidary & Mnl. Soc.  
Marshall Street Armory  
Between Mich. Ave. and Saginaw Sts.  
Lansing, Michigan

November 29, 30 and Dec. 1:

Int'l. Gem & Jewelry Show,  
O'Hare Expo Center  
Chicago, Illinois

November 29, 30 and Dec. 1

Geodon Gems  
Exhibition Hall  
2015 W. Manchester Rd.  
Wheaton, Illinois

Try to get out and see some of these shows. Winter is around the corner so get your supplies for those indoor projects.

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Bob and Margaret took the trophy for their petrified wood case to Florida for the national competition. We wish them luck.

Also Margaret won the ring on the raffle at the convention.

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JUST THINK.....

The BATHTUB was invented in 1850; the TELEPHONE in 1875. Had you lived in 1850 you could have sat in the bathtub for 25 years before the phone rang!

(Via the Glacial Drifter)

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WHAT IS DUCKITE? BEWARE!!!!!!!!!!!!!!!!!!!!

Have you ever been to a rock show and observed all those beautiful rock slabs soaking in the pans of water? The water really brings out the color in the rocks, wouldn't you agree? Well, BEWARE! Duckite might be lurking in those very pans of water! DECKITE doesn't bite, if you're careful.

Carefully reach into the water and lift out the slab you like. So far so good! Be very careful now..easy does it! Dry the slab off completely. Now look at the slab. How does it look when dry? What the heck is Duckite you ask again? Well I'll tell you! Duckite occurs when a person "DWYS THE SLAB OFF & CAN SEE THE QUACKS IN IT!

A humorous approach, but again on a more serious note, a good point. If you see a slab you like in water, dry it off completely and inspect the slab. Water enhances the true color of the material, true, but water also hides most flaws such as pits and fractures. Don't be a victim of Duckite! As mentioned before, Duckite can bite you if you let it, right in the pocket book! by: Cindy Berrie  
Owyhee Gem & Hy Grader



TURNING UP THE FLAME IN FIRE AGATES

Many of the pieces of fire agate coming from Mexico have been windowed, a process in which a portion of the chalcedony cap has been ground down to show the fire layer, and rough polished. This is the type I would suggest for a beginner to start with as it is easier to trace the fire and also easier to grade the potential value of the stone.

Fire agate can be bright and highly reflective or it may be so dim it can only be seen under the 500 watt spotlight of the dealers table. Step away from the light and see if you can still see the fire. Be certain to not go so far as to alert the security guards. Also dry the stone off so that flaws which are hidden by the water covering the surface will also show up.

Fire agate's fire is extremely directional. Be sure to rotate a windowed agate through the four compass points before selecting it to insure no disappointment when you get home. A bragging piece will have fire that can be seen without the spotlight, will be visible when viewed from any direction and does not have a lot of matrix which will run up the price.

If you are fortunate enough to find an agate that passes these tests and also glows with two, three, or even four colors, be prepared to pay more for it. The above mentioned tests are easy and fun to try at the dealer's table. Not only can you see the colors, but less total cutting is needed as part of the waste chalcedony has already been removed. Better take this one with you.

Typically, fire agate is composed of a layer of milky chalcedony overlying the layer with fire which lies over a matrix of country rock. This fire layer is composed of a thin line of limonite which catches the light and refracts it before reflecting it back through the surface. Obviously the limonite layer is so thin that if you accidentally cut into it, it will be gone.

Therefore, forget standard capping practices and cut the fire agate from the top down being careful to not cut through the layer of fire.

Arrange a high intensity light to shine on your cutting wheel and start cutting away the chalcedony layer from around the exposed fire window area. (Coarse wheel for the rough cut, 600 wheel for the fine grinding). It is important to realize that the thinner you can get the chalcedony layers which cover the fire, the more brilliant the stone will be. One encouraging note is that the stones are usually layered and if you cut through the first fire layer slowly grind the stone down and most likely another layer of limonite will be exposed. After the excess chalcedony has been removed you may have a real keeper or pinhead sized stone which is just part of the fun of cutting fire agates.

Put a little cutting oil on top for good visibility and stick the agate (matrix side down) in a little lump of modeling clay. Place this under your high intensity lamp and view it from directly overhead to center the fire at a perpendicular angle (right angle) to the table top. Now rotate the clay and agate lump to insure the best visibility from the sides, too. Next rotate the clay and agate piece against a felt marker pen to mark the plane you will follow with your trim saw to cut away the rock matrix. If the clay is rotated on the table while the pen is held in a fixed position, you will mark a straight line around the agate. Now separate the two with the saw.

After the cutting process you may find the stone is reduced to the size appropriate for your wife's pinky finger and not the big bola piece you envisioned at the beginning. Oh well. Smooth the back side on your grinding wheel and be certain to keep the stone wet so that it doesn't split or crack. Now start shaping the sides of the agate and bevel the bottom so that the sharp edge will not chip.

continued on page 6.....

FIRE AGATE, continued .....

At this point I usually go to my Foredom flex shaft for the final stages of sanding and polishing. Since in most fire agates the fire line has a convoluted form it is necessary to follow this line as it runs through the stone. I have found that small rubber wheels are handy to get down into the crevices of the stone for sanding and polishing. I also use coarse and fine diamond charged metal points which really speeds up the process if there is a lot of chalcedony covering the fire line. Keeping the stone cool and protecting the diamond points has proved to be a challenge at times as it is difficult to grind accurately while submerging a stone in water.

During polishing I usually go to hardened maple sticks which are charged with diamond compound. This may seem a little wasteful but works for me and shaping the sticks to the right form to fit the problem at hand is very quick. Just use some sandpaper or a knife. I also go so far as to use 100,000 diamond grit on canvas pads to highlight the surfaces.

Some lapidaries use a tumbler to sand and polish their stones but this seems risky to me as the sanding operation leaves a fine layer of chalcedony over the fire line which could be easily removed if left in the tumbler too long. Also many cutters I have talked with will not use the sawing operation mentioned above as they feel it is too easy to cut into the fire lines and ruin the stone.

Fire agate when properly cut is as pretty as opal and a lot more durable. Setting a fire agate into a silver or gold mount is not nearly as nerve wracking as setting an opal. For those of you who like to make a dollar now and then from your hobby I would like to mention that I saw one cutter at Tucson two years ago get several thousand of dollars for a tray of exquisite fire agate stones.

(rewritten from an article in the Rockpile 5-91 via The Rock Pickings)

The editor picked this article to reprint as I have determined out of all stones I have seen, the fire agate has to be my favorite. Being a novice at working with stones (I have a unit set up at home) I thought the proper way to work with fire agates was to order a box of them, which I did and all the stones arrived just as described in the first paragraph of this article with one portion ground down. When I told Gordon Dobecki (my cabachon cutting instructor) what I had done, Gordon said, "you don't pick out fire agates like that". He was right. I looked at the box and wondered to myself - where to start! Well, when I do I guess I won't feel too badly if I'm the one person who ends up with the "pinpoint".

Gordon by the way has some beautiful fire agates - finished and ready for setting. I'm waiting to see what he does with them.

by: Joyce Larson  
Editor

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Since I seem to have taken over the last two pages, let me tell the Junior members that we haven't stopped doing rocks of the 50 states. Alex Rubenstein did display his poster and assorted stones at the convention. We added five states since our last Rockfinder publication. In the next issue, I plan to continue the project as it has become as much a challenge to me as it is for you Junior members. I will be needing some assistance from you travelling club members or some that might have some rocks available and are willing to part with about 7 small ones. There are states that I need samples from and I would appreciate anything you might have to further this project. Thanks.

Joyce

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NEW BOOKS AND VIDEOS: by Paul Godollei, club LIBRARIAN.

We were able to acquire several new books and videos during the summer for our members use, including two children's videos: DINOSAURS: Fun, Facts, and Fancy, Volumes 1 & 2, by Trans-Atlantic Video, Inc., Freehold, NJ. They trace the discovery and collecting of fossil dinosaur bones in England in the early 1800's and the evolution of fossil collecting, with an animated cartoon showing models of dinosaurs, and early movies with erroneous ideas about man and dinosaurs.

I believe a deposit of \$1.00 should be required to take out videos, with a late charge for failure to return them on time.

Books include: Midwest Gem, Fossil and Mineral Trails, by June Culp Zeitner covering the Great Lakes States of Minnesota, Wisconsin, Indiana, Illinois, Michigan and Ohio.-96 pp-Gem Guides Book Co., Pico Rivera, CA, 1988-\$5.95.

A Crooked Mile, by Earl M. Hill - A diary of 26 chapters of field trips thruout the US on Rockhounding and the daily occurences he and his wife made, in his own witty style-2 copies donated by Earl & Violet to our club.

Crystal Waters - by Dr. Pat Jordan; a guide to the hot springs-Heartland Press, Norman Ark. 1990-gift of Phyllis Smallwood, 1991.

Jewelry Making & Design-by Augustus Rose & Antonio Cirino-Dover Books NY, 1949-purchased used 1991-\$9.95-306 pp. 325 illustrations. Discusses gold; silver and other metals, and the design and making of jewelry.

Jewelry Making for Beginners using the scroll wire method, by Edward J. Soukup-Gem Guides Book Co., Pica Rivera, CA 1973-\$3.50 purchased 1991 48 pages-with illustrations showing methods and design.

Cabachon Cutting, by Jack R. Cox-Gem Guides Book Co.-1986-\$3.50-64 pp. illustrates every step in dopping gemstones, preparing stones for shaping and polishing and sawing techniques.

Facet Cutters Handbook-by Edward J. Soukup-Gem Guides Book Co.-1962 \$3.50-purchased 1991-Explains the methods and procedures to facet gems including 20 cuts used.

These will all be at the next meeting for use by club members. I will propose a deposit for each book taken out, to ensure return.

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GROWTH HABITS OF SINGLE CRYSTALS

BARREL-SHAPED: Self Descriptive term - vanadinite and mimetite.

BLOCKY: Almost of equal dimension in all directions - like a toy block-feldspars, galena, fluorite

(via SERENDIPITY GEMS)

BLADED: Crystals are flat, broad and long - like a knife blade-kyanite and hemimorphite

COLUMNAR: Thick & fairly elongated-like miniature building columns - sometimes also called PRISMATIC for the dominant faces on the crystals-beryl quartz, tourmaline.

CARVING -- WHAT IS IT?

Start with a lump of material such as soapstone, remove all the extra material that does not belong, and you have left behind a finished carving. Here are the steps:

1. Know what material you want to work with. Beginners usually start with a soft material such as soapstone..can be carved with simple hand tools, is easy to find, is not very expensive. Other carving materials include alabaster, rhodonite, jade, pipestone.
2. Collect pictures/sketches of the intended carving. For animals, nature magazines are a good source of pictures. Scale the image to actual size of your desired carving. Make a template of the image for side and top views.
3. Square up the rough material to the approximate size of the desired carving. Mark outlines of the templates using felt pen or scribe. Remember, felt pen may not disappear from some stone.
4. Use a hacksaw to cut away all material not needed.
5. Use a rasp to begin shaping the soapstone closer to the final shape. Refer to your picture and templates as you get closer to the final shape.
6. Use finer-toothed files and sandpaper to finish the carving.
7. Sand all scratches out of the surface using progressively finer grades of sandpaper. (220-600)
8. Polish the carving by heating it in your oven at 150 degrees until it is warm to the touch. Quickly apply a coat of clear shoe polish. After carving cools, give it a buff with a clean soft rag, stand back and admire your creation.

(Via Pebble Press, Marin Min. Soc. Tumbler, Nodular Nocker News and Gem Time.

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HINTS:

When cutting turquoise, howlite or any porous rock under hardness of 5, soak the material in water for a week or so, and you will have no problem with the stone soaking up the oil.

Did you know that 1 oz. of course, medium or fine grit (for tumbling) is equivalent to 4 level measuring teaspoons? One ounce of polishing powder is equivalent to 8 level measuring teaspoons.

(Via Serendipity Gems and Rock Rustler News

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The trouble with reading labels is that you realize you are washing dishes with a detergent made with real lemon juice, and drinking lemonade made with artificial flavorings.

(via The Conglomerate, The Lithnics.

FOSSIL COLLECTING IN INDIANA: by Paul Godollei, club member.

On September sixth Margaret Schultz and I had an opportunity to stop off at the Erie Stone Co. rock quarry on the way back from visiting friends in Bluffton.

The quarry is located about a mile East of town off US 24- if you are coming in from Route 5, turn left on US 24 and go about a mile East until you come to an oil tank farm. The Erie Stone Co road leads to the office, where you must borrow a hard hat and sign a waiver to release the Owners from liability. The quarry is open Monday thru Friday, and you can only collect on the spoil dumps next to the railroad on the Tank Farm road. Field trips may be arranged for by calling Huntington 219 356-7214 or writing to the Erie Stone Co., 500 Erie Stone Road, Huntington, Ind. 46750.

We stayed about an hour and found several Conchidium casts and some smaller brachiopod impressions, a stomatoporoid, crinoid stem, Favosites and chain coral casts and Halysites impressions.

The Quarry is off limits, but is almost a mile long and a couple of hundred feet deep, and according to Cummings and Shrock in 1926, they concluded that the North quarry face was on the edge of a massive reef and exposed well bedded cherty dolomite, of which most of it is Liston Creek limestone. The East face of the quarry has been identified as New Corydon limestone. Exposures of Huntington Dolomite are also found. These are all of Silurian age. If you are using US Geologic Survey Maps, the quarry is located in the SE 1/4 of Sec 12, T 28 N, R 9 E. in the Huntington Quadrangle.

BIBLIOGRAPHY:

1. Adventures with Fossils, by Robert H. Shaver-Ind. Dept. of Conservation, Geological Survey Circular #6, 1959, page 24.
2. Silurian Formations and Reef Structures of Northern Indiana Guide Book-3rd Annual Indiana Geologic Field Conference-1949 Indiana Dept. of Conservation, Bloomington, Ind., p. 12
3. Stratigraphy of the Silurian Rocks of Northern Indiana, by Robert W. Shaver. Field Conference Guide Book #10, May 1961.; Dept. of Conservation, Ind. Geological Survey., page 40

