

THE PICK & SHOVEL



March 1981

highlights

*in
this issue...*

NEBRASKA GEM HUNTING:

The Needle in the Haystack
Syndrome



OFFICIAL PUBLICATION OF

Lincoln Gem and Mineral Club, Inc.

P. O. Box 5342

Lincoln, Nebraska 68505

LINCOLN GEM AND MINERAL CLUB, INC.
P.O. BOX 5342, Lincoln, NE. 68505

The purpose of this corporation shall be to study, promote an interest in, and disseminate knowledge of lapidary and various earth sciences including but not necessarily limited to geology, paleontology, and mineralogy. It shall be a particular purpose of the corporation to provide education in these fields to its members and the general public, particularly youth and student groups.

MEMBER: American Federation of Mineralogical Societies (AFMS)
Midwest Federation of Mineralogical and Geological Societies (MWF)
Nebraska Association of Earth Science Clubs, Inc. (NAOESCI)
Nebraska Academy of Sciences (NAS)
Community Arts Council of Lincoln (CAC)

Regular Meetings: 4th Saturday of the month, September thru May; 7:30 P.M.
At Nebraska Center, 33rd & Holdrege

1981 ELECTED OFFICERS:

President.....	Roger Pabian	315 'D' St.	Lincoln, 68502	474-2034
1st Vice Pres....	Irl Everett	2945 N. 65th St.	Lincoln, 68507	466-6204
2nd Vice Pres....	Howard Taylor, Jr.	910 New Hampshire	Lincoln, 68508	476-3707
Secretary.....	Nelda Oliver	5700 Otoe	Lincoln, 68506	489-5222
Treasurer.....	Phyllis Parks	2435 S. 19th St.	Lincoln, 68502	476-6798
Board Member....	Ray Lambert	1201 N. 79th St.	Lincoln, 68505	464-8552
Board Member....	Virginia Green	6120 The Knolls	Lincoln, 68512	423-5032
Board Member....	Lois Everett	2945 N. 65th St.	Lincoln, 68507	466-6204
Board Member....	Florence Boring	2836 S. 40th St.	Lincoln, 68506	488-6243

Nominating Committee--3 years: Marie Taylor, Jim Parks
2 years: Bob Walker, Irl Everett
1 year: Wilfrid Wittman, Edwin Johnson

STANDING COMMITTEE CHAIRPEOPLE:

Programs.....	Howard Taylor	1981 Show.....	Howard J. Taylor, Jr.
Education.....	Ray Lambert	Liaison/Calling.....	Marie Taylor
Hospitality.....	Bob & Mary Walker	Refreshments/Party....	Marj Heedick
Historian.....	John & Lillie Lewis	Scholarships.....	Howard Taylor
Librarian.....	Jim Parks	Outside Displays.....	Frank Rule
Membership.....	Mary Lambert	Housing/Property.....	Bruce Simon
Field Trips/Safety..	Walt McCoy	Publications.....	Glen & Flossie Litzenberg
Sunshine Corner....	Susan Taylor	Junior Activities.....	Mary Walker
NAOESCI Reporter....	Vera Lyman	Auditing Comm.1980....	Howard Taylor, Vera Lyman, Florence Boring

LONG RANGE PLANNING AND BY LAWS COMMITTEE:

1 year-Nelda Oliver, John Harrison 2 years-Jim Parks, Phyllis Parks
3 years-Howard Taylor, Marie Taylor

PICK & SHOVEL STAFF:

Chairman: Glen Litzenberg

Editor.....Vera Lyman, 420 N. 56th St. Lincoln, NE 68504
Club News.....Helena Baegl
Sunshine.....Susan Taylor
Circulation...Glen & Flossie Litzenberg

DEADLINE: 1st of Month of Issue. Original articles may be reprinted if credit is given the author and THE PICK & SHOVEL and a copy of the publication is sent to the Editor.

CALENDAR

General Meeting: Saturday, March 28, 1981 7:30 P.M.
Nebr. Center for Continuing Education
33rd & Holdrege
Norfolk Room
Parking available north of building
Regular business meeting beginning
at 7:30 P.M. followed by a special
Program:
"Fossil Collecting in the Fayum Area of Egypt"
by Lloyd Tanner, U of N Museum

Bev Bartek will give a short presentation on
activities at the Chet Ager Nature Center.

Board Meeting: Thursday, April 2, 1981 7:30 P.M.
5700 Otoe Street (Nelda Oliver home)

Jr. Activities Meeting:
Friday, March 20, 1981 7:00 - 8:00 P.M.
3029 'T' Street - Walker home

Show Committee Meeting:
Thursday, March 26, 1981 7:30 P.M.
Commercial Federal Savings & Loan
56th & 'O' Streets

ATTENTION
PLEASE

SHOW: 23rd Annual Show
April 11-12, 1981
Agricultural Hall
Nebraska State Fairgrounds

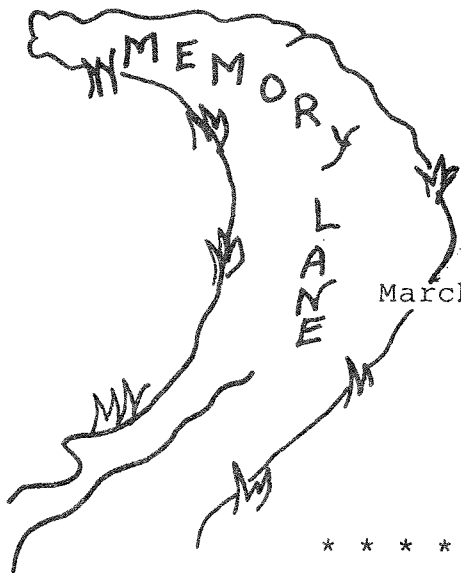
Be sure and mark these dates on your calendar.

STATE SHOW: Nebraska Mineral & Gem Club
September 5-7, 1981
Holiday Inn, 72nd & Grover
Omaha, Nebraska

STATE SWAP: Homestead Gem & Mineral Club
June 20 & 21, 1981
Chatauqua Park (electric hook-ups)
Beatrice, Nebraska

HASTINGS: Central Nebraska Rock & Mineral Society
April 17-19, 1981
4-H Building, Adams County Fairgrounds
South Baltimore, Hastings, NE

HISTORY - "Ten and Twenty Years Ago"



March 1971 . . Two programs were presented at the meeting. One by 'Mac' McKinney; called "Florida Disneyland", which contained lovely slides. The other program was by Ralph Ulrich & Marie Wells; called "How to Prepare Your Show Exhibits". It was well planned and presented.

March 1961 . . This was our first meeting at the Munny Building. Richard Hedges presented the program and showed us slides of his trip to Missouri and the Caves he went into. We had a good crowd and all enjoyed it.

* * * * *

Hello from the Sunshine Corner:

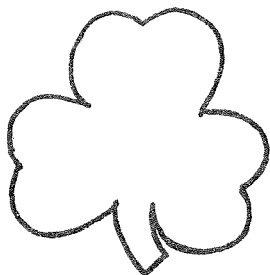
Life is a spring morning
if you've got a friend,
Someone to walk with
and talk with
and turn to.

Life is a spring morning
if you've got a friend,
to share a little sun with,
to help you along.



Now and forever . . . you've got a friend.

- - Alan Doan



This past month a get well card was sent to Howard Taylor; a sympathy card was sent to Mrs. Earl Messelheiser expressing the sympathy of the Club on Earl's death.

- - Suze Sunshine

* * * * *

MAKE THE BEST OF EACH DAY; IT IS THE MOST IMPORTANT ONE YOU MAY HAVE.

THE PRESIDENT'S PAGE

Elsewhere in this issue, Ray Lambert has written a short article on gem collecting in Nebraska. I will use a few lines to elaborate on a specific area with which I became familiar in 1965. This area is the South Platte River terraces in Deuel and Keith Counties. These terraces extend westward into Colorado. It is difficult to date these big features because of a lack of fossils, but the oldest terraces (those occupying the highest hills) may be late Pliocene age. These deposits have sometimes been called the Sidney Gravels but it is doubtful if all of them correlate with the type Sidney. Their stratigraphic relationships are very complex, and that will suffice for this article.

The high river terraces have been dissected by some deep canyons such as that formed by the intermittent stream known as O'Neill Draw that is situated between Big Springs and Chappell. Such canyons have made some exceptionally fine natural exposures of the stream gravels. Further dissection of the landscape by human activities such as road building and farming have created some exceptional artificial exposures. The sources for the gravels in these exposures lies in the Front Range in Colorado and in the younger sediments covering eastern Colorado. The pay is some exceptionally well colored agatized wood, some very fine moss agates, some outstanding jaspers, and some faceting grade quartz, including citrine and smoky quartz.

A day's collecting will usually yield a large amount of material. This is misleading because only a small portion of it is really good for gem material. Probably 95 percent of the material will be discarded. For instance, a large piece of wood weighing several pounds may have enough suitable material for a couple or three cabochons. A rare, fine piece may be all usable for jewelry, but such pieces are unusual. The jaspers follow the the same rule. The faceting quartzes usually have more recoverable materials, but the finds are far rarer. To recover the gem-quality pieces of woods and jaspers is a game that is won only by the patient. Much sawing is required. The patient are well rewarded, however---some exceptional collections of such materials have been made by Nebraska collectors such as Howard and Harvey Kenfield of Ogallala.

Most of the Deuel County materials are easy to handle in the lapidary stage. Most sands very easily, but new paper helps eliminate any undercutting that may come from old, dull paper. Most of it polishes very well with tin oxide on poly-pads or felt. The various cutting materials from southwestern Keith and southern Deuel counties are well worth the effort of the lapidist's effort.

The March meeting will have two speakers. First, Bev Bartek of Chet Ager Nature Center at Pioneer's Park will give a short presentation on that facility. Then, Lloyd Tanner of the University of Nebraska State Museum will present a program on a recent fossil collecting expedition into the Fayum of Egypt.

The theme of the March educational program will be Nebraska gems and minerals. Please bring Nebraska materials to display. Cases will be provided.

Elected directors are to bring something to display at the March meeting. Appointed committee chairpersons are to bring something to display at the April meeting.

Roger Pabian,
President

FROM THE EDITOR'S DESK . . . At the present time, I'm anticipating a rather busy month ahead, just as many of you are. My first real concern must be to prepare and mail our annual report to the IRS. This is probably one task that none of us are too crazy about, but it must be done.

Also a first, is to edit two issues of the Pick & Shovel by April 1. This is a task I really enjoy. Everyone has been very helpful by getting their material to me early so there is no problem in readying it for print.

However, these tasks are both secondary to my home and family. It seems, at our house, everyone is looking forward to Spring, gardening, and just being outdoors.

Anticipation is great concerning our 23rd Annual Show, and I do hope it's a great success for you, Jim.

NEW MEMBERS

There were three members accepted by reinstatement. They were

Marvin Anderson
Walt McCoy
Nancy Neihardt

New members and their sponsors were:

Chris & Sally Lloyd & Kimberly	- Florence Boring
Robert H. Fixter	- Irl Everett
Janet Wright	- Roger Pabian
Daniel C. Wehler	- Nelda Oliver
A. J. Mueller	- Lois Everett
Dorothy Caton	- John Lewis
Roger Engelbart	- Ray Lambert

Be sure to watch for their addresses in the next issue so you may enter them in your WHO'S WHO.

A new address for you to enter this month is for;

Marilyn Smits
9155 West Waterford Square North
Greenfield, Wisconsin 53228

WHO'S WHO

All copies of the Who's Who are available for Club Members. If you have not received yours, please pick it up at the next General Meeting. If you wish to have it mailed, please send me a stamped, self-addressed envelope. Thank You.

Editor, Vera Lyman
420 North 56th Street
Lincoln, NE 68504

Minutes - Lincoln Gem & Mineral Club, Inc.
Board of Directors - February 5, 1981

The Board Meeting was held at Commercial Federal, 56th & 'O' Sts. with all Board Members present except Irl & Lois Everett. Club members present were Vera Lyman, Glen & Flossie Litzenberg.

The January minutes were read and approved with corrections.

Treasurer's report was given and approved, as follows: Cash on hand, \$20.00; First Federal Transmatic, \$493.35; 30 month Certificate of deposit, \$4,511.18; Nat'l Bank of Commerce, checking, \$261.67; First Nat'l Savings, \$13,199.07; First Nat'l checking, \$649.50.

Bills to be approved and paid; \$40.00 Jan. program; \$20.00 Vera Lyman for Birthday cake; \$53.20 '80 President's plaque; \$18.84 Glen Litzenberg mail Jan. P & S; \$91.20 Nebr. Center Jan. Swap & Meeting; \$24.60 U of N Jan. Pick & Shovel printing; \$5.54 Page Trophy for engraving plate.

Income included \$282.00; \$13.42 coffee kitty; \$6.00 Subs. P & S; \$35.00 Ad P & S 1980; \$10.00 on Christmas dinners; \$2.50 swapper bucks percentage; \$73.35 Jan. Silent Auction for AFMS.

OLD BUSINESS:

Discussed possibility of fluorescent display for Chet Ager Nature Center, to be on permanent loan as visual aid cases are. Moved by Florence we allow \$50.00 for construction for case, 2nd Virginia Green, carried.

No swap report.

NEW BUSINESS:

Application for reinstatement for Luella Paul, and for new members Ann Renee Crawford-Junior, Mr. & Mrs. Des Gibson. Moved to accept by Jim Taylor, 2nd Virginia Green, carried.

Ray Lambert is withdrawing from graduate school and returned the funds presented to him by LGMC to be used for another student.

Florence Boring reported on LB 537 and asked for individual efforts to help fight it.

SHOW REPORT:

All committee spots are filled since Jan. meeting. We will have report in Pick & Shovel Please fill out request for exhibit space.

No more dues will be accepted without reinstatement after tonight's meeting.

Minutes - Board of Directors - February 5, 1981 - - continued

Discussion by Florence Boring about binders for Lapidary Journal. Motion by Florence we purchase at least 4 more binders as needed, second Virginia Green, carried.

Mailing exchange bulletin overseas now costs \$1.62 for one - decision to terminate.

Our program for Feb. meeting will be Gems of America.

Next Board Meeting March 5, 7:30 PM, Nelda Oliver home, 5700 Otoe.

Meeting adjourned.

Respectfully submitted,

Nelda Oliver, Secretary

23rd ANNUAL SHOW

Work on our 23rd Annual Gem and Mineral Show is proceeding as scheduled. All show committee spots have been filled and the respective committee members are all hard at work.

At this time I personally invite any members of the Lincoln Gem and Mineral Club who are interested in displaying at our show to do so. Please fill out an exhibit registration form and return to either Glenn Lyman or myself by April 1, 1981, so that we may plan for the necessary table space. Club members needing any exhibit registration forms can get them from me at any time.

April 10, 1981, is set up day. Club members are needed to help set up tables and cases beginning at 8:00 AM and continuing thru the afternoon hours. Club members may set up their personal displays between 12:00 noon and 9:00 PM.

A few committee members have indicated that they still do need some additional help. Bob Walker needs volunteers to be ticket sellers and ticket takers. Glenn Lyman needs volunteers to help set up and take down the show. Marjorie Heedick needs volunteers to provide cakes, and help with the Saturday night Social. All interested club members are asked to call these people and volunteer to help.

If anyone has any questions about the show, or would like some additional information, please get in touch with me or the members of the 1981 Show Committee.

Jim Taylor
1981 Show Chairman



There will be a Show Committee Meeting on March 26, 1981, 7:30 PM, at Commercial Federal Savings & Loan, 56th & 'O' St. All Committee members are asked to make a special effort to attend this meeting. This will be the last meeting before the Show.

Thanks,
Jim

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Rockhound Friends:

Just a note to say Thank You for all the cards, letters and get well wishes that I received from you. Thank You for the flowers & visits to me during my stay at the hospital.

A special Thanks to a guy on the north end of the same floor and his family. Our being on the same floor created an incentive for both of us to walk and get our exercise, and have someone to visit with.



Sincerely,
Howard Taylor

HIGHLIGHTS from HELENA

Len Wiggins Once Pulverized \$15,000 Worth of Jewelry

The deep pensive blue you sometimes see in the eyes of a fine portrait is probably courtesy of Len Wiggins, his trusty hammer, and a semi-precious stone called Lapis Lazuli. A stone that has become so expensive and scarce that only a very small quantity of the pigment can be made each year.

Len's job is to break the impurities out of the Lapis, hand-selecting only the choice, deep blue pieces (all of which, incidentally, are gem grade or better). These are then finely ground, mixed with beeswax, and hand kneaded in warm water ("must be 30 degrees C, exact"). This extracts the colour, leaving all non-essentials behind.

Len's been at his job for over thirty years (and with Winsor & Newton over forty). He still makes genuine ultramarine pigment this way, when the stone is available, because it's the only way to do it. Of course, many Winsor & Newton pigments are now made by more modern methods, whenever it's possible without compromising quality.

From TODAY'S ART and GRAPHICS, Vol. 28, No. 7.

* * * * *

An enthusiastic welcome-back-into-the-fold to Lois and Des Gibson, who were long-time LG&M members, and have now decided to become active again.

We are happy to report that both Irl Everett and Howard Taylor are back home, after several in-and-outs at Veterans Hospital. Take it easy, fellows. We loves ya.

Member Earl Messelhisser passed away Saturday, Feb. 21st, after undergoing extensive surgery. He suffered greatly. Our deepest sympathy to his wife Lorene.

Your reporter has heard absolutely nothing concerning her cabs and jewelry that were stolen from her car the night she was mugged and robbed - Nov. 3rd. If anyone should run across cabs or slabs anywhere, such as a pawnshop or elsewhere, would appreciate your telling me. I lost lapis, chrysoprase, moonstones, jasper, etc. Also several silver medallions.

Helena R. Baegl

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You Saw It Here First:

If you saw Doug Henning's Magic Special of February 14th, one of his effects was the "Mail Sack Escape". It seems we saw that effect performed by our own Magi, Roger Pabian, Carl Wells, and George VanDam at our 1980 Mid-Winter Rock Swap and Magic Show.

NEBRASKA GEM HUNTING: The Needle In The Haystack Syndrome

Those of us with stooped backs and flat feet who have been collecting in this state for some time, realize that difficulties lie ahead for those who go afield. Nebraska is a state which has not been blessed with vast resources of gem materials. As an old friend of mine used to say: "The good ones are farther apart than the bad ones." Before you can begin collecting, several things should be kept in mind.

The majority of Nebraska gem materials consist of cryptocrystalline quartz family minerals. Other than the famed blue agate from the Crawford area, several cherts and flints from southeast and southcentral Nebraska, dendritic opal from the panhandle and the opalized wood deposits in northcentral and southcentral Nebraska, the majority of gem materials do not occur in place. Our extraneous gems have either entered the state due to stream transport from source areas in the mountains to the west or glacial transport from source areas to the northeast. Most of these materials occur as outcrops of gem bearing gravels covering thousands of square miles.

The variety of gem materials found will vary with their source areas and the particular section of the state which is being hunted.

Fortification agates, Lake Superior agates, jaspers, agatized woods, dendritic agates and opalized woods are found most commonly. More exotic materials such as labradorite, epidote, topaz, sapphire, jade, smoky quartz, amazonite and cat's eye and asteriated quartz have also been found. Due to the space limitations of this article, it is not possible to go into exact locations. For specific discussion of locations, see the publications listed under readings at the end of this article.

Hunting for Nebraska gems consists of looking at many small outcrops over vast areas. Gravel pits are a prime source due to their concentration of the larger materials as cast offs in the search for sand and smaller gravels. Gravel bars in existing streams or old stream channels or terraces always require that second look. Also check out glacial till deposits in the worked fields and along roadside ditches in eastern Nebraska.

Remember good capping materials occur almost anywhere the cryptocrystalline quartz materials are found. Top notch cabinet specimens are another matter. Due to the nature of gem deposition, gems with the prerequisites of size and perfection of top cabinet specimens, are a little harder to come by. However, don't give up. They are out there!

In Nebraska collecting, the greatest rewards are not the cabochons or cabinet specimens which one acquires. They are the beautiful days, wild flowers, animals, and the wonders of nature to be seen. They are the memories of old friends who are no longer around for us to collect with. These are the treasures Nebraska has to offer. Perhaps field collecting is for you. If so, start building your collection of treasures today. Happy hunting.

NEBRASKA GEM HUNTING: Continued

READINGS

- Pabian, R.K., 1971 Minerals and Gemstones of Nebraska, Educational Circular 2, Conservation and Survey Division, University of Nebraska-Lincoln. 80p.
- , 1980 Gem Collecting In Nebraska, Lapidary Journal, Vol. 34, p. 462-477.
- , 1980 Rocks & Minerals, Nebraska Special Edition, Vol. 55, Number 3, p. 91-134.

IT PAYS TO INVESTIGATE SOMETIMES!

An advertisement appeared in the Kansas City Star that sounded really good. It was an offer by Abernathy and Closthe Ltd., Westbury, New York for a solid 14-karat gold heart pendant for \$5.99 + \$1.00 shipping.

Then individuals began to receive cards in the mail from the same company offering a pair of genuine diamond stud earrings for \$5.00 + \$1.00 shipping.

These offers were both investigated at the urging of some interested people. Information on the firm was furnished by the Better Business Bureau of Metropolitan New York. The three officers of Abernathy & Closthe... Stephen Brown, Ephraim Schriebman and J. Steven Williams are also officers in H. N. Fisk Ltd. and North American Minerals LTD. Brown is also president of Gem Collectors International Ltd. Collectively, the companies have offered, through the mail orders; diamonds, emeralds and sapphires.

None of the companies in which all three of the men are involved meet standards of business practice set forth by the Better Business Bureau. The diamonds sold by Abernathy have only 10 facets and the Federal Trade Commission said stones sold as diamonds should have at least 17 polished facets. The size of the diamonds advertised as .25 point, are actually 1/400 of a carat.

In November, the state of Illinois sued all three companies and Brown for misrepresentation. The case is still pending.

A Massachusetts court ruled that only the emeralds were sold as advertised. Advertising has been discontinued as ordered by the court, but how long will it be before these same men reorganize their advertising and come out to bilk the public again under a different guise?

--via OSAGE HILLS GEMS, February 1981

I received just such an ad from North American Minerals, Ltd. and also Gem Collectors International, Ltd.

So, Rockhounds, beware of false advertising. They do make it sound so legit.

Your Editor

THE OWEN MAGNETIC CAR

You may ask, "What is a magnetic car?" The name sounds intriguing, "Is it an easy answer to our transportation?" Fuel prices continue to rise with no end in sight. We must not think we can travel to our favorite gem and mineral spots at reasonable cost. This is no likely solution to our current energy problem. That answers the second question.

Now, about the first question, and a little motor car nostalgia. There once was such a car, but it did not run on magnetism, but the transfer of energy from the engine to the drivewheels was magnetic. Its clutch and transmission were electromagnets. That did not mean the engine powered a dynamo or an electric generator to furnish electric current for driving an electric motor to turn the drive wheels.

The "Owen Magnetic" was something totally different, and I have not heard of it for sixty five years. Probably most readers have not known such a car ever existed, so I shall proceed with the story.

Let us turn back to about 1915; auto travel was beginning to boom, highways were improved, and the airplane was only starting to attract attention, but not splitting the ozone nor producing vapor trails. Old "Dobbin" was being pushed more-and-more toward the pasture. Many makes of the horseless carriage were showing great improvement in many features, but only a few of their manufacturers are still in business. The Owen Magnetic did not survive. Cost of production may have been a cause.

Most readers know that the motive power in a car is transmitted to the drive wheels through a device called a transmission, preceded by a slightly slipping applicator, the clutch. These have been of various styles, principles and with advantages and disadvantages. There are cone clutches, wet clutches, dry clutches, and many different types of transmissions; some are automatic shifting, others are manual, or hydraulic, or electric shift. The choice of "gear ratios" range from two upward.

Henry Ford, jokingly called "The World's Richest Tinsmith", used a two-speed planetary transmission with a wet plate clutch in his famous Model T. It was easy to operate, but it had some mechanical "bugs" about it, known today to only a few old-timers and an occasional modern tin-lizzie buff.

There were at least three friction-drive cars known in those "good old days"; the Carter, the Metz and the Lambert. The Carter (no peanuts), thrilled country fair goers by demonstrating its ability to climb a 50% grade incline, but it would stall in a mud-hole when the flat friction disc attached to the engine shaft failed to turn the fiber-rimmed wheel pressed against it at a right angle. The fiber-rimmed wheel could be slid across this contact on a

THE OWEN MAGNETIC CAR - continued

grooved shaft which was set cross-wise inside of the car body frame. Chain sprockets on the shaft's ends transmitted the power to the rear wheels. A rocker or eccentric permitted variable pressure between the friction disc and the fiber-rimmed wheel, to act as a clutch. Infinite choice of "gear ratios" was attained by sliding the fiber-rimmed wheel to make contact at different points between the center of the friction disc and its circumference. Too much slippage caused flat spots on the fiber surface and that meant trouble.

Now, back to the Owen Magnetic. The evolution of the clutch and transmission systems in cars was always a searching for something better. By late 1915, having heard of the wonderful Owen, I wrote for information to my cousin, O. Dean Davidson, Engineering Editor of The Twentieth Century Farmer magazine in Omaha. His reply of January 19, 1916 contained an interesting booklet and his own added information as follows:

This car is shaft driven. It differs from other cars in that it is electrically driven so does not require a transmission. It uses a unique electrical machine which is both a generator and a motor in one unit. It has both a revolving magnetic field and a revolving armature. The frame of the magnetic field is fastened to the motor crankshaft and revolves with it. The armature is fastened to the driveshaft and revolves with it. The equivalent of a transmission is obtained by the difference in speed or "slip", as it is called, is not very great. When the control lever is moved to a "lower gear", this slip becomes greater and some of the current which is generated passes through the windings of another set of magnets and helps propel the car by acting virtually as a supplementary motor. Since this system does away with the transmission gears and their friction, it should be very efficient, in fact, as efficient as an electric motor.

That seemed like a good idea, but the mechanism probably was too costly to meet competition. Maybe a wallet bulging "rebate" might have helped.

- by J. D. Young

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TO CUT PETRIFIED WOOD

Petrified wood should be cut lengthwise of the grain. This produces a more varied pattern. Sometimes cutting crosswise will give good patterns but this is not usually the case. Limb sections are rather on the scarce side as they tend to disintegrate before they petrify. If they are cut diagonally and polished to show the grain it is much better. The limb itself is a novelty and by just polishing one end it adds to its beauty.

- via The Pyriter, Feb. 1981

THE NEBRASKA ACADEMY OF SCIENCES

The 90th Anniversary of the Academy
1891 -- 1981

The ninety-first annual meeting
April 10 and 11, 1981

The NINETY-FIRST ANNUAL MEETING of the Academy will be held at Olin Hall of Science, Nebraska Wesleyan University, 50th & St. Paul Streets, Lincoln, You will need to plan now to attend and participate in Nebraska's chief interdisciplinary scientific meeting of the year.

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HOPES HIGH FOR OREGON GOLD MINE

Dallas Times Herald
12/15/80

MEDFORD, ORE. (AP) - A Las Vegas mineral firm says it will dig what could be the country's richest gold mine eight miles southwest of this southern Oregon city by June 1981.

Sean Downey, Vice President of Continental Mineral Inc., said the firm could reap at least \$900 million, and possibly \$5 billion, from its 20-acre site at Sugar Loaf Mountain.

"This is probably the wealthiest gold mine in the history of the United States," he said.

Continental, which operates mines in Arizona, California, Idaho and Nevada, became interested in southern Oregon when studies showed an estimated 1.5 million ounces of gold ore at Sugar Loaf.

- via AFMS Newsletter, Jan. 1981

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CALIFORNIA Anaheim, California August 7-9	EASTERN Lexington, Kentucky June 26-28	MIDWEST South Bend, Indiana July 23-26	NORTHWEST Kent, Washington August 21-23	ROCKY MOUNTAIN AFMS SHOW Salt Lake City, Utah June 4-7	SOUTH CENTRAL Lubbock, Texas April 24-26
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Give a Hoot!
Don't Pollute



IT'S EVERYONE'S AMERICA!

DO YOUR SHARE IN KEEPING IT BEAUTIFUL!

JUNIOR PAGE

Hi Juniors:

If you are studying Earth Science at School, you might want to share some of this information with your classmates.



There are many scientific theories concerning the origin of the earth as your science text books will tell you. You must remember that a hypothesis is only an educated guess and has often been proved wrong. I personally prefer to believe that an intelligent Being planned and created the Universe. It is too perfect to have just happened.

Scientists have studied the earth's crust only five or six miles down. Canyons and gorges, such as the Grand Canyon, help in the study of the earth's crust. The crust is the outer shell of the earth that extends from 20-40 miles below the surface. The man-tle extends about 1800 miles. Scientists believe there is an outer core of molten material and an inner core consisting of very heavy minerals such as iron and nickel. Temperature measurements made in deep mine shafts indicate that at a depth of 30 miles the temperature may reach 1000 degrees.

The crust of the earth is composed mostly of two different kinds of rocks; granite and basalt. Both are common igneous rocks. Granite contains feldspar and quartz. Basalt is a fine-grained, dark-colored rock.

Some geologists believe that granite is not as dense as basalt and that the granite floats on basalt much like ice floats on water. They think that mountains have been pushed up as masses of material moved from place to place.

Can you think of any recent happenings in western North America that show earth movements are taking place?

- submitted by Evelyn Ulrich

* * * * *

Minutes - Junior Club Meeting:

February 20, 1981 - - Walker home, 3029 'T' Street

It was decided that meetings will be held on the third Friday of each month, from September through May. The time will be from 7:00 PM to 8:00 PM; and until a larger meeting place is needed, they will be in the Walker home at 3029 'T' Street. Activities such as shows and field trips will not replace meetings unless held on a regular meeting night or designated as a meeting. It was decided to make the ages for the Junior Club to be from 9 years to 18 years old.

Officers and a name for our club were not selected at this time but will be at the March meeting.

Junior exhibits for shows were briefly discussed and possible field trips. If you have any ideas, bring them the the next meeting, March 20, 1981. Ideas from adults are very welcome, too.

Jimmy Archuleta was appointed liaison to the Pick & Shovel.

The
LINCOLN



GEM & MINERAL CLUB, INC.
invites you to attend the

23rd ANNUAL

1981 Gem & Mineral Show

APRIL 11 - 12, 1981

Agricultural Hall - Nebraska State Fairgrounds

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Subscriptions to THE PICK & SHOVEL are \$3.00 per year mailed.

Dues to LINCOLN GEM & MINERAL CLUB are as follows:

Adult membership fee \$5.00 (age 16 and over)

Junior membership fee \$1.00 (age 12-16)

Family membership fee \$11.00 (husband, wife and all children under 16 - permanent residents of household)

New membership must be approved by the Board, after applicant attends at least one (1) regular meeting of the club, and pay the above dues plus \$1.00 registration fee.

PLEASE NOTE:

The regular Club meetings are held on the fourth Saturday of each month, September through May, at the Nebraska Center for Continuing Education, 33rd and Holdrege.

The Business Meeting begins at 7:30 P.M. followed by a program.

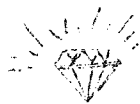
Anyone who is interested in our hobby is welcome to attend.

REMEMBER:

Our 23rd annual Show is coming up soon. The dates are April 11-12, 1981; and it will be held at the Agricultural Hall, Nebraska State Fairgrounds.

PLAN TO ATTEND.

Lincoln Gem & Mineral Club
Box 5342
Lincoln, Nebraska 68505



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Exchange Editor: Vera Lyman
420 N. 56th St.
Lincoln, NE 68504

Roger Pabian
315 'D' street
Lincoln, NE - 68502