Meteorite Times Magazine

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Avanhandava is a stone not usually represented in private collections, and even more rarely in anything larger than a gram or two. The distribution of Avanhandava is very low even though there are over nine kilograms in circulation.

Avanhandava fell in São Paulo, Brazil in 1952. It is listed as an H4, S2, and despite its mundaneness, Avanhandava has found its way into a handful of research studies.
There are much better looking chondrites than Avanhandava. In fact, most stones, even those pulled from the hot sands are more enjoyable to gaze at. Avanhandava as represented in most collections is little more than a friable rust-tinted blob with occasional distinct chondrites.

Initial reports stated that the mass of Avanhandava that arrived on earth was 30cm in diameter. However, it broke up and 9.3kg were preserved. According to the Catalogue of Meteorites, of those few kilos, the largest pieces are 7.74kg in Colegio Estadual, 1.59kg in Avanhandava, 3.1kg in the USNM. Since that totals 12.42kg, but the first two weights exactly total the listed TKW, I assume that some subdividing has occurred within the limited sub 10kg initial report.
Avanhandava is certainly not a looker, but it does represent a half-century old witnessed fall. And any witnessed fall is a good fall in my book.

Until next time....
I have had a great adventure the last couple weeks. My old diamond saw that I made about 30 years ago finally died and I needed a new one. There is nothing on the market to go out and buy that will do what I want from a diamond saw. So I took a week or so to think about the design and made a few sketches of ideas and then spent the last week making the saw. Of course this was the last two weeks of March.

Paul said, “You have to take a lot of pictures for an article unless you are keeping the design a secret.” Well, there is no reason to keep it secret. There is nothing really new that was not in the other saw it is just a lot better. Thirty years ago I had to make a saw fast. I used a lot of welding on parts and used really scrap stuff from the garage to put the old saw together. Not this time.

This is an image of the nearly finished saw. Is just lacking its splash covers. I had the time to do this right and make it the way I wanted so I did no welding.
No brazing either it is made from aluminum and a few hard wood spacers. The only plastics are the splash covers of clear acrylic and the motor and pulley cover and blade cover made of black ABS.

First let me say that I made nearly every part except the actual machine screws that hold it together. The aluminum plate and angle I had in the garage from taking apart some old pieces of printing equipment. I had been holding on to this metal from years ago when I got out of the printing business. The whole cost for this saw was under forty dollars and that is because I had to buy the pump for the coolant. I had two pumps but after sitting for 20 years neither worked.

I used the motor and pulley mechanism from the old saw since that part I had well engineered 30 years ago. But the broken belt that provoked this whole thing forced me to modify the pulleys. They were a strange double groove vee belt type deal that I could not find a replacement for anywhere. So I took the pulleys and turned them down to get rid of the middle peak and make them into a normal single vee design.

I had two thick aluminum plates that were the side frames from a huge old photo typesetting machine. They were 1/4 inch thick and would make a great saw top structure. There was a hole in the middle of the plates and I decided to utilize the hole for the coolant to drain off the saw. I have become annoyed too many times by having to drain the saw after use and having to pull the saw apart to change the blades. And then there are the times that the thin slice of meteorite slides right down into the coolant tank and I had to take the saw apart to retrieve the slice. So the plan for this saw was to spray coolant onto the blade and let it be completely exposed above the top of the saw structure; much like a commercial chop saw. I would have to recirculate the coolant and I needed to keep big pieces of rock out of the tub that would be under the saw. I did not want pieces of rock jamming up the pump. This will all be pretty easy to understand by looking at the attached images.
This is the top plate of the saw with the coolant containment wall attached.

I had an old piece of electronic equipment that I had torn down but I had kept the case from and it had six round ventilation screens. I took those and made them into filter screens by placing them onto a plate of aluminum that covered the big drain hole in the saw top. So nothing big enough to clog my pump or coolant spray nozzle would make it to the tub that had the recirculating coolant. Also no slices or pieces of rock will ever fall anywhere with the new saw.
This is an image of the six drain screens that prevent any rock particles from returning with the coolant to the tank under the saw. The pump and spray nozzle work fine with the saw created mud but would clog with larger particles.

For years I have written about how I attach the meteorites to a mandrel with dop wax and make slice after slice by moving the mandrel over with a screw pushing mechanism. I am still using that system but this is much more refined. The new saw has much tighter tolerances and the whole mandrel motion mechanism can be removed and replaced with a table cutting platform for when slices are diced down to smaller size pieces.
Pictured here is the mandrel holder and lateral motion mechanism. The dial indicator allows me to cut slices that are exactly the same thickness one after another without removing the rock from the saw.

I had used a rolled threaded rod of large diameter and coarse thread in the old saw. This time I machined the threaded rod for the mechanism that advances the stone into the blade. I used a small diameter shaft and cut fine threads into. It is much smoother and I have a lot more control and none of the periodic error that I had with the old rolled threaded rod. I would turn the handle to advance the stone and it would not move for half a turn and then it would advance the other half rotation. I have none of that with the machined threads I cut. The trade off for using a thin diameter rod however is that I have much less support in the whole carriage the moves forward and back. So to avoid any sagging when cutting a heavy rock I have installed an “antisag pin” from the bottom of the carriage to the frame of the mechanism below. The round end of the pin rides smoothly on the bottom frame rail and there can be no sagging under load. The addition of an un-threaded rod parallel to the threaded rod is another improvement. There can be no up and down or twisting motion of the carriage as it moves forward and back past the blade.

These are the parts for the cross motion carriage that move the meteorite in and out through the blade. The next image shows the mechanism assembled.
Since the whole blade was to be exposed above the saw top plate I decided that I could use an 8 inch blade as well as the 6 inch size I have been using. So I designed the blade cover so that it would have wide enough sides to cover the last portion of the 6 inch diameter blades and be thick enough to handle the 8 inch blades with some room to spare. I drew up patterns on cardboard and cut them out then transferred the contours to 1/8 inch thick ABS plastic and cut out the two sides. ABS plastic has a textured side and a smooth side so I had to turn the pattern over for one of the sides so they would both have the attractive texture when glued up. I made an assembly jig with a board and finishing nails to hole the plastic sides down in alignment and let me wrap the band of plastic around the edge for the top of the blade cover. I stacked blocks made of foam core the correct thickness in between the two side pieces and glued the assembly together.
These images show the blade cover cardboard templates and the cut parts, then the parts in the assembly jig drying after gluing.

I love working with ABS plastic it cuts easy and breaks straight if you score it on both side. And it glues together with solvent type glue so the pieces are welded as if they were one piece when it drys. I made the motor and pulley cover the same basic way. Patterns cut from cardboard and the pieces glued using my right angle picture framing clamps and small hobby speed clamps.

I had thought about making a fiberglass tank to contain the coolant within the middle of the saw. But decided to take aluminum angle and cut it and rivet it down to the saw top plate and create a wall. I had been storing a big can of assorted aircraft rivet for 30 – 40 years and had used a few from time to time but this was my chance to make use of them. The hard aluminum alloy rivets would give me a fantastically strong connection and would never rust. I also sprayed the inside of the wall area with a plastic sealer so the coolant could not leak.

I worked the project as sub-assemblies. I made the cross motion mechanism with the carriage and support as an assembly of its own. I had the motor and pulley and blade arbor mechanism as another assembly. I just needed to integrate the various sub-assemblies into the finished saw design. I already had the cross motion mechanisms and carriage made so I could mark the saw top plate for where it would be located. Then I cut and folded the coolant wall aluminum angle to leave spots where components would later be mounted.

This picture shows the positioning of the sub-assemblies in the aluminum wall.

Having the ¼ inch thick top plate let me tap all the mounting holes for the various items that needed to be mounted. I used mostly brass screws to avoid rusting but could and may switch them out for stainless steel screws.
But I don’t think there will be much galvanic activity between the dissimilar metals of aluminum and brass. After all I am using distilled water with a little alcohol which is nearly electrically neutral for chemical action. And the saw should drain to nearly dry quickly after use. But, I did not want to use steel screws within the coolant tank area. I figure I will need to take it apart from time to time and do not want to fool around with corroded screws.

I had been annoyed with the old saw that it did not have nice knobs to turn for making the motion of the stone laterally or into and out of the blade. So I had some scrap exotic hardwood (the species I no longer remember, but it was nice wood). I turned it into knobs and think I made nice attractive contours that will make the saw nice to look at and pleasant to use. There is a knob that locks the aluminum mandrel holder into the cross motion mechanism. There is a knob that holds the mandrel in position after it has been moved over for the next cut. Two additional knobs were needed one for the end of the lateral motion adjustment screw and one on the crank of the forward and backward motion threaded rod. It took a lot of time to turn the knobs but I am happy with the way they look and work.

I was a lot more interested in the appearance of the saw this time. I was concerned that it worked well first off, but I wanted something that was nice to see also. Over the last 15 years I have been asked to cut meteorites on camera on two occasions and to be perfectly honest I was not proud enough of the saw I had to feel great when using it on camera. But, this saw I think is pretty attractive and well engineered.

The images will tell you the rest of the story on the construction. So I will move on the the next annoying part of the old saw I was going to try and remove from this design. I have cut rocks long enough to expect that there will be spray everywhere. But, I am tired of being soaking wet after a couple hours of work. So one of my goals with this saw was to make covers that would give me visibility while still containing almost all the coolant.
The splash guards can be seen in this image and they worked very well I get hit by no coolant now.

I was pretty sure that I could heat acrylic plastic and bent it using the heat gun I have for shrink insulation. So I made templates again out of cardboard for the size and shape of my shields and then cut them after they were correct from 1/8 inch clear acrylic. I heated the plastic with the heat gun then bent the straight folds of two of the shields using wooden blocks to apply pressure and make the bends. For the large shield that folds back out of the way on a hinge I heated the plastic and used the same template I used for the curve of the blade cover, but with some alterations to give me a drip lip on the front edge and a flat vertical portion to raise it to the correct height. It needed to be higher than anything else near the stone so I had plenty of room. I wanted the front shield to just be a little higher than the drip lip of the curved swing able shield over the middle of the saw. You can see the finished shields in the pictures. I made a shield for the left side of the saw just to keep the remaining spray that when in that direction but it needed no heating and bending.

The coolant needed to be squirted at the edge of the blade near where the stone was being cut. But I did not want a huge stream. So I cut off a length of copper tubing saved from an old refrigeration unit that I had saved the compressor out of. I needed a vacuum pump for high voltage rarefied gas illumination experiments 20 years ago. I cleaned up the copper tubing and formed it into a curve that mimicked the contour of the blade cover because it would be next to the blade cover when installed. I took a tiny tubular rivet from
my clock making supplies and would use that as my nozzle for the coolant sprayer. It had an opening of only about 30 – 40 thousandths of an inch. It would nicely restrict the amount of coolant dispensed and make a good stream. I drilled a tiny hole in the side of the copper tubing near the end which I had bent to cross over in front of the blade. I soldered the tubular clock rivet into the hole and closed the copper tube with solder at the same time. Down at the other end of the copper tube I soldered a thick brass plate with two holes to the side of the copper tube to mount the copper coolant supply tube to the saw frame. The tube now very solidly mounted just needed a piece of plastic aquarium tubing and a pump to make it work.

This is a closeup of the coolant spray nozzle. The way that it is attached and aligned can be seen in the next photograph.
There is little else to describe. I needed to change the AC electrical cord for the saw motor. After 30 years it was due for a change. I run the saw off a Variac to control the speed a little bit and have used the switch on the Variac, so I just made a waterproof plastic box on a plastic stand for the cord to motor wire connections.

So that is it, I got some 8 inch diamond blades that were still thin and put one on and made my first cuts. I picked one of the most fractured pieces of Al Haggounia that I could find and mounted it on a mandrel. I made seven cuts one after the other moving right across the width of the stone. The slices were so smooth that they almost did not need to be lapped. It cut with so little stress that the slices did not fall apart on the fractures. I got rock mud all over the saw but proved it worked. I keep it clean and probably always will because this may be the big home engineering project of my life.
This is an image of the saw ready to run with an 8 inch blade.

I hope some of the readers found this interesting I know it was pretty far from the normal discussion of meteorites and probably was pretty dry stuff. But, maybe it gave some enthusiasts a few ideas for saws of their own.
These are the first slices I cut on the saw. The meteorite is Al Haggounia and it was full of fractures. You can see how smooth the surface is they have not yet been lapped.

As a fun experiment I got to the very end of a stone and decided to see if I could split the last remaining little bit attached to the mandrel. So here is a shot of that piece after cutting. The feeler gauge is .014 inches and the rock slices on each side are only about .028 inches. I left it slighted uncut so it would hold together for photos.
Meteorite Market Trends
by Michael Blood

This Month’s Meteorite Market Trends

by Michael Blood

Please Share and Enjoy:
El Mirage Dry Lake Clean-up

By Robert Verish

Volunteers needed to help “clean-up” El Mirage Dry Lake.

The title of this article may mislead you into thinking that I am looking for volunteers to help clean up all the remaining meteorites from El Mirage Dry Lake (well, maybe I am).

Actually, this “clean-up” is really an event where a large group of volunteers come out to El Mirage OHV Recreation Area (twice a year) to help the Friends of El Mirage (and the BLM) with their clean-up and maintenance of the area. The 2014 “Spring Clean-up” was held on May 3rd. The “Fall Clean-up” will be held on October 25th. And from what I have learned from past “Clean-ups”, this is a great opportunity for public outreach (regarding meteorites), and to promote meteorite-recovery to a large group of people (while actually at a drylake).

Because of last years federal government shut-down, the October 2013 clean-up was cancelled. That fact, and the forecast of very high temperatures predicted for the Mojave Desert, resulted in a lower than average turnout (85 volunteers) for this recent May 3rd “Spring Clean-up”. Past turnouts have had as many as 175 volunteers! That’s a lot of people at one gathering all walking about on a drylake, bent over collecting refuse, picking-up metal-debris with magnets, and leveling hummocks with rakes.
Ample opportunity for someone to “accidently” find a meteorite. It would only be prudent to have a “meteorite expert” on hand to conduct public outreach and to help identify any possible meteorite finds.

This was exactly what I suggested to the Friends of El Mirage (the coordinators of the “Spring Clean-up”), and much to my surprise I received a prompt reply from the Barstow BLM. Apparently, not only did the FoEM agree with my suggestion, but the BLM agreed, as well, and extended to me a personal invitation to their next clean-up and to “set up an information table and even bring a few samples”.

Ever since a $15 fee per vehicle for entry onto El Mirage was established, I have had no luck in convincing my friends to join me in a group meteorite-hunt at this Dense Collection Area (DCA). But after I reported back to them about this last Clean-up, and how volunteers get a free overnight pass, they are now wanting to join-in at the next Clean-up. So, if you would be interested in joining us in this outreach effort, but have some questions about what volunteers do, here is an overview of the last Clean-up:

The day started off at the Visitor Center with a breakfast at 7:00AM (a $3 donation is suggested). Then registration started at 7:30, followed by the formation of work crews. By 8:00AM these crews had already headed out the drylake area to begin work. Work crew projects included general clean-up and trash collection, lakebed maintenance, Joshua Tree fence repair, and using magnets to remove nails and other sharp objects from the lakebed and campsite areas. The work crews stayed out until around noon, returning to the Visitors Center for a BBQ lunch that was served at 12:30 and that was followed by a raffle drawing (the 50/50 drawing began at 1:00PM).

So, to recap, Pre-Registered Volunteers receive:
- a full breakfast ($3 donation suggested)
- a BBQ lunch (donation suggested)
- a free raffle ticket (held at lunchtime)
- and free permit to overnight camping facilities.

This was a day of good company and good fun, and was a chance to give back to one of the more popular public areas.
Breakfast starts at 7AM for clean-up crew volunteers.

On average more than 100 volunteers sign-up for the “Clean-up” which means
it will be easy to meet people and make new friends.

Volunteers from SCTA are eager to remove rocks and small sand-dunes from the racetrack portion of the lake-bed. This maintenance crew knows where the rock-pile is located.
Clean-up crew on their way back from a work “project” site, returning to the Visitors Center for a much deserved complimentary lunch.

One of the CORVA volunteers display the magnets that are used for picking
Here is an example of the kind of metal debris that is picked-up by the clean-up crew with their magnet-devices.

Unfortunately, no meteorites were recovered. Maybe someone will get lucky at the next Clean-up?
EMDL 004 is classified as “W0” which means that it is unweathered! Essentially, it is a freshly fallen meteorite.

This means that relatively little time has transpired since this stone fell, so, there’s little chance that other stones from this fall having traveled very far from where ever they landed.

They, too, are probably still sitting on the alluvium waiting to be found. Maybe stones even larger than 271g.

Had there been a witnessed fireball event prior to finding this “W0” stone, this would be highly publicized.

Why there haven’t been dozens of meteorite-hunters clamoring about this “fall” & searching hard this area, is a mystery to me.
Google Earth View: of El Mirage Dry Lake – San Bernardino County, CA – showing EMDL-DCA and meteorite find locations.

Aerial View: of a wet El Mirage Dry Lake – San Bernardino County, CA – showing many shorelines.

Post Script: A spokesperson for the FoEM (Friends of El Mirage) wanted me
to mention that, if you are unable to attend one of the publicized Clean-ups, people who want to volunteer to clean up are always welcome at anytime of the year. Of course, you would miss-out on all of the socializing that comes with a “Clean-up”, but you may still be able to negotiate a free overnight pass. If you do go, let us know if you find a meteorite. And Good Luck!

References:

Meteorites with Name = “El Mirage Dry Lake” from the Meteoritical Bulletin: the search results for all meteorites found on “El Mirage Dry Lake, California, USA” – Published in Meteoritical Society – Meteoritical Bulletin, Database.

El Mirage Dry Lake 004 from the Meteoritical Bulletin: the entry for EMDL 004 – Published in Meteoritical Society – Meteoritical Bulletin, Database.

The Digital-Desert website for images and links about El Mirage Dry Lake.

Geology of El Mirage the original geologic history of the Antelope Valley.

Barstow BLM Office the BLM website for the EMDL Off-Highway Vehicle Recreation Area: El Mirage Cooperative Management Area is now a Fee Area.

El Mirage Days the BLM website for the 2006 “Clean-up”.

Southern California Timing Association the SCTA official website.

CORVA the website for CA Off-Road Vehicle Association.

Friends of El Mirage their official website.

El Mirage Dry Lake, California website for “Interesting El Mirage Facts”.

My previous articles can be found *HERE*

For for more information, please contact me by email: Bolide*chaser
Layered Chondrules in Allende CV3

John Kashuba

These photos were taken of four thin sections that were deaccessioned by a US university. They appear to have been made by different people and at different times. On one, the cover slip cement has turned yellow. Some have labeling engraved on the slide behind the sample. Some of this can be attributed to the sample size being very large, covering most of the slide. Some samples have been polished a bit thinner than the standard 0.03mm. This might have been intentional since it helps reveal structures that are otherwise obscured by the fine grained matrix of this type 3 carbonaceous chondrite.

The layers in these chondrules distinguish themselves by differences in texture and composition. And these result from successive episodes of accretion and heating. Layers tend to be finer grained toward the outside of chondrules. We see different types of cores.

Core is a single crystal of olivine.
This is the same view as the photo above. The polarizing filters have been rotated putting the core grain into optical extinction to highlight its halo of fine grained material.
Coarse core surrounded by finer mineral grains.
Another single crystal core.
A barred olivine chondrule core with an untidy fine grained surround.
Two barred olivine chondrules and a layered chondrule.
Both chondrules have barred olivine chondrule cores. In the upper chondrule the bars are blue and red.
A jumble of bars is at the center of the chondrule surrounded by medium size grains and, toward the edge, layers of opaque material.
The black circles and curved traces are metal. They show better in the reflected light photo below.
The metal blebs and mineral grains in the center were surrounded by two metal shells before the chondrule was sliced open for inspection.
A 5mm diameter porphyritic pyroxene chondrule (with poikilitic texture) is surrounded by dark and finely crystalline layers.
Coarse center with finer surrounding layers. Some mineral grains were plucked from the center of the chondrule during thin section preparation.
0.66mm wide layered chondrule.
The outer layer is a barred chondrule so we know that part was fully molten at some time. When it solidified its internal crystal lattice grew in alignment with the adjacent core crystal.
Over the years, we’ve only handled a few moldavite dumbbells and even those were not great. Recently we were offered this gem by an Austrian collector (and we accepted!) 5.4 grams, Chlum, Czech Republic.

A real beauty.
The Harriman file is much bigger than the others with few pictures but many letters detailing a long, convoluted and difficult negotiation with many players. It was carried out by an associate of Oscar Monnig, who goes by the name of Vega or Bunch, not his real name according to Dr. Ehlmann, a resourceful person who not only did not use his real name, but even resorted to using coded messages.

The first document in the file is this index card dated Spring 1933, the first sign that a meteorite had been found in Tennessee.

WHEAT, IRON, owned by W.F. Gallaher, Wheat Tenn., {P.O.}, about two years ago; tested by Prof. H.C. Amick of University of Tenn., who definitely states that it is an iron meteor; described as a "splinter" shape-- weight about 75 lbs. Date of fall unknown. Three letters to Gallaher unanswered. It is reported that he asks an unreasonable price for it.
Not encouraging either, but things soon improved, and by June the existence of the meteorite was confirmed and “Bunch” was on its trail although he didn’t seem to particularly like or trust the people he was dealing with.
And then the whole thing turns into a shell game with the meteorite as the pea. Who actually has the meteorite? Mr. Davis in Harriman says it is Mr. Parks in Chattanooga (locally called Ross Landing), or maybe E.L. Kenyon also in Chattanooga. Or maybe it is Dr. Cross, a pediatrician in Knoxville, or could it be his father, also a doctor. Some tell Mr. Monnig’s envoy, now signing Vega, that they have an offer on the meteorite, others deny it; either way “Vega” insists his offer remains $1 per pound, but only after he examines it. There seems to be no trust between anyone of those multiple players. But ‘Vega’ is not giving up, as he explains to Oscar Monnig in a long and convoluted letter.
Knoxville, Noon, June 4, 1935

Dear Prof:

Your wire of June 3 and Air Mail letter received.

INTERIM EXPLANATION:

You know about the original Harriman and Wheat trip. To bring you up to date I shall give you some of the later developments.

While at Harriman something was said about running down to Chattanooga that afternoon after the meteorite, but as it was then getting late and Huff had to get back to Knoxville to meet his wife when she got off from work we decided against the 100-old mile trip down there and back that day. However, Decoration Day being a holiday, I had time on my hands and as I had not heard from Harriman further I thought I might do something to speed up the deal. I called Davis at Harriman. He said he had written the man at Chattanooga but had received no reply, so I suggested that I could run down to Chattanooga after it if he could get all the partners together and have them ready when I got back up to Harriman. He seemed pleased with the idea and gave me the name of the man in Chattanooga I was to see. I got an appointment with this man by phone for 2:30 pm that afternoon, rounded up a man to take me down there and we hie-tailed it for Ross Lanning (Localism for Chattanooga). I had hoped to make a try at the Wetmore prospect on the way down or back, but as you will see we did not get to it.

We just barely made the appointment in Chattanooga. I introduced myself and stated my business. The man, Mr. John Parks with the City Board of Education, was courteous, but did not waste much time in talking cold water all over me. He looked me squarely in the eye and swore he would be damned if he knew anything about the meteorite or even knew the man I mentioned in Harriman. I thought, of course, that he was simply stalling until I identified myself. I offered to do this through Knoxville, or through any one of several fellows I know in Chattanooga, or to simply get in touch with the Harriman bunch. He was still polite but insisted that he didn't know anything about the matter at all. I described carefully what it was I was after, thinking maybe the fellow was just ignorant. But he said he knew what meteorites were but that he had never seen this one, didn't have and knew nothing about it whatsoever. There was nothing for me to do but retreat as honorably and diplomatically as possible--I would much have preferred punching the old --- --- ------ in the nose, for he was a liar, if there ever was one. I hot-footed it to the nearest telegraph office and sent Davis the following wire:

PARKS FORMERLY IN ARCADE BUILDING CLAIMS HE KNOWS NOTHING OF METEORITE AND DOESN'T EVEN KNOW YOU PLEASE ADVISE WESTERN UNION COLLECT WHAT TO DO.

That was at 3:00 pm. We waited in Chattanooga until 5:15 pm for a reply and never received. As we had a 110 mile drive ahead of us and I had to go to work next morning early we had to leave, albeit with reluctance. I left word to have the reply, if any, forwarded to me at Knoxville. I received it the next morning about 10 am. It was apparently held over in Chattanooga and I am making inquiries about the delay. Anyway, the reply read:

HAVE PARKS TAKE YOU TO E L KENYON WHO HAS METEORITE
All documentation is Property of the Monnig Collection – TCU

By July Vega-Bunch is a bit more encouraging. He has heard from the Doctors Cross, father and son, who seem to know more than they initially let on, they advise him to be patient. And now the pea, hmm... the meteorite, is said to be with Mr. Parks. So while waiting, Vega-Bunch writes poetry, that he sends to Mr. Monnig.
By August the shell Game is heating up, and Vega-Bunch is resorting to sending a coded message to Oscar Monnig. Yes, finally, it seems that the meteorite has been located, but it does not mean that the holder of the pea will let it go. Oscar Monnig only wrote the translation of the first line, anyone care to try deciphering the rest?
The next day the news is discouraging: the doctors have located the meteorite, it is in Chattanooga but they had to hire a lawyer to help recover it. What follows is Vega-Bunch long diatribe about the legal system and local judges in what he considers to be back woods. But again the doctors tell him to be patient, so he waits. And by October, he is still waiting.

Dear Prof:

As I told you on the card yesterday, Dr. Cross sent word, through his son, that they had located the meteorite in Chattanooga and had turned the matter of recovering possession over to an attorney. You wrote me once that you did not know of any decision in this country in court on this matter. I am just wondering if, in the absence of any statutes and prior decisions, a judge would be guided by the English law on this point. If so, the meteorite would certainly come back to Harriman to the man whose place it was found. I very much fear, however, that in this case the reliev[ing] warrant, or whatever the court order is called, would be sought through some half-baked JP's court, of which there are literally hundreds in the large cities of this state, and it would simply reduce to a question of how well strings could be pulled on both sides. No fine legal points considered in such courts. Dr. Cross seemed insistent that I sit tight just a little longer and confident they would have possession of the meteorite in a few days.

But by mid-October, he seems to be running of patience and goes to Chattanooga, where he gets information on some of the shell-game players. He now knows that Mr. Kenyon has the pea (meteorite) but the problem is finding Mr. Kenyon. He explains all that in a long letter to Mr. Monnig. Communications were indeed difficult in 1935!
Knoxville, Oct. 14. 1.00 pm.

Dear Prof:

I have not hurried to write you about my trip to Chattanooga after I learned you were going to Houston. Today I am homely expecting another wire from Kenyon, but will close this out in time to catch the 2:30 plane west.

I arrived in Chattanooga at 11:30 am Friday and left there at 9:00 am Sat. I didn’t get the meteorite but I did find out a thing or two. I was with Jones within an hour after I arrived and he soon contacted Park’s. Jones did not mention my name at all, and Park’s told him readily enough that he had been to Harriman with Kenyon when he got the meteorite but he didn’t anything about it, except that Kenyon was supposed to have it and that it was for sale.

Kenyon is a broker’s salesman and was supposed to have an office right in midtown, but we couldn’t find him there and he didn’t come in all afternoon. They said he lived way up on Signal Mountain without a telephone but he wasn’t there nor did his mother know where he was. I decided last thing Friday, just before bus time, that I would make a good job of it while there and try to see Mr. Kenyon next morning, but at 9:00 am, which was the last bus I could catch to get back here for work Sat. afternoon, he still hadn’t showed up. I left a note with his office giving my name and address and asking him to get in touch with me.

It was nearly midnight Saturday night that I got a wire from Kenyon saying that if I wanted to buy a meteorite to call him at such and such a county number. The wire had been filed early in the evening and I was pretty sure that the number he gave was some neighbor’s phone where he probably parked waiting for me to call, and I decided against trying to reach him that late. I filed a night letter to him last night, however, asking him if he could bring the meteorite up here for me to see and possibly test. They said at his office that he was sometimes rather getting to work in the mornings, but that that was the surest place to send wires and letters. I didn’t much expect another answer before noon, but it ought to be here by now.

Parks told Jones of another meteorite he knew of there near Chattanooga, but he fooled away so much time trying to contact Kenyon that we didn’t have time to trace it down. I have the name of the man and his address for future reference. Parks described this one as being quite soft, like magnesia inside. May be a stony meteorite, alright.

For your file note the following:

To: Kenyon, care Sims Ferry Long, 111 West 6th St., Chatt.
Mr. K. Ramsey, Harriman, Tenn., the reputed owner of the stone.
I think there is little doubt but that Kenyon has the meteorite and is itching to sell it, from what I heard of him down there. Jones suggested that if there was any further trouble in the deal that you contact him yourself direct and let him get after Kenyon. I think that would be a good idea, that I am trying to pass the job along, but Jones knows the town and Kenyon and could probably make the deal better than I. Wait until you hear from me again, however, before writing or wiring Jones. I still think Kenyon will wire me today or to-night. I’ll probably wire you again tomorrow, and will give you any other details I think of.

Sincerely,

Dunlap.
And then, only a week later, this telegram: The shell-game is over; somehow the meteorite has been found and is on its way to Texas and Mr. Monnig’s office. Sorry, there is no explanation in the file as to how this happened so quickly.
And here it is finally, the whole Harrison meteorite, in a picture stamped on the back by the Smithsonian Institute, but not dated.

But as it is quite obvious by now, Mr. Monnig was a very thorough and persistent person, and he needed more information. We don’t know when he wrote to Mr. Hembree, the last person to join the shell-game, but in August 1950 he received this letter from the finder of the meteorite, who confirms that yes, indeed, he is the finder but seems to be just as baffled as everyone else about the rest of the story.
After all those troubles and tribulations, the Harriman meteorite is now comfortably settled in the Monnig collection, it has been classified as a fine Octahedrite, group IVA, with 7.96% nickel, and it has a beautiful sharp Widmanstatten pattern.
Our Meteorite of the Month is kindly provided by Tucson Meteorites who hosts The Meteorite Picture of the Day.

Gibeon Meteorite 1616 grams. 230 mm long – Copyright Jim Strope. Iron, IVA TKW 26 metric tons. Fall not observed. Found 1836 in Great Namaqualand, Namibia. The fragments of the meteorite in the strewn field are dispersed over an elliptical area 275 km long and 100 km wide. Jim writes: When sitting in this position it reminds me of a fireball.
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Once a few decades ago this opening was a framed window in the wall of H. H. Nininger’s Home and Museum building. From this window he must have many times pondered the mysteries of Meteor Crater seen in the distance.

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