DECEMBER, 1953

The Lapidary Journal



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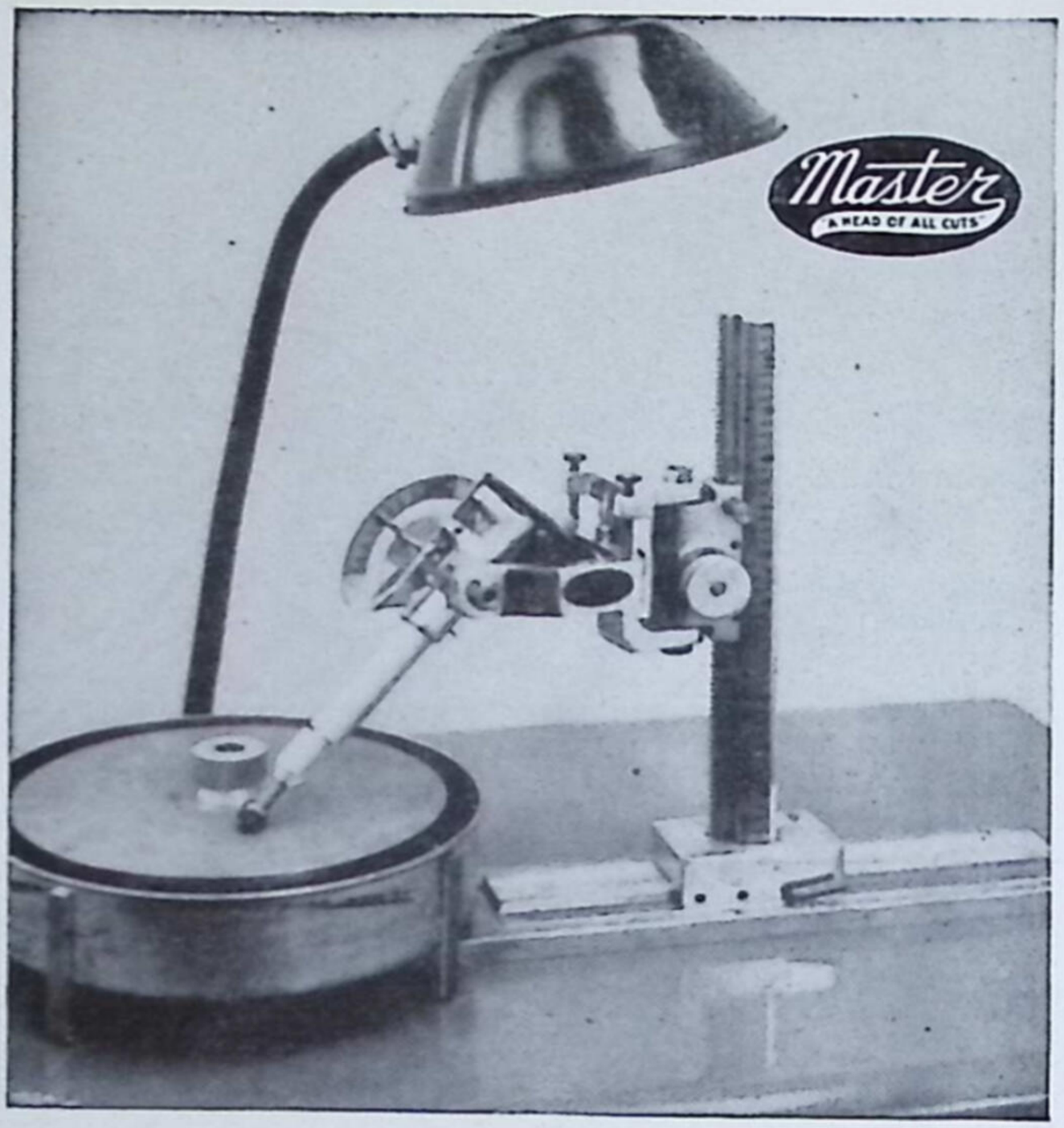
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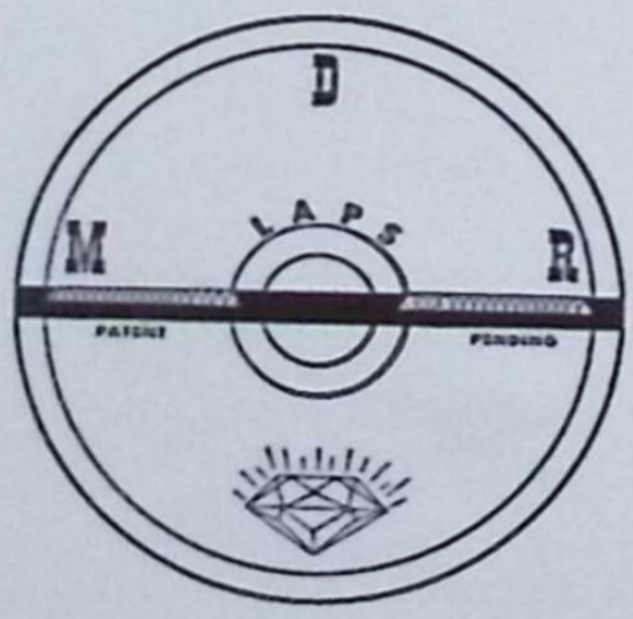
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for
GEM CUTTERS, GEM COLLECTORS
AND JEWELRY CRAFTSMEN

THIRTY-NINTH ISSUE

PUBLISHED BI-MONTHLY ON THE FIRST OF FEB.-APR.-JUNE-AUG.-OCT.-DEC.

Volume Seven | December, 1953 | Number Five

No man is really happy or safe without a hobby, and it makes precious little difference what the outside interest may be . . . anything will do so long as he straddles a hobby and rides it hard.
Sir William Osler

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Where the summer spends the winter

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Pearls Are Not a Lapidary Luxury

By FLORENCE M. SWAN
8249 Ellis Avenue, Chicago, Illinois
Member *Chicago Lapidary Club*

Working with cultured pearls is not an extravagance beyond the amateur lapidary's fondest dreams! A year or two ago, I drilled and mounted a number of cultured blue, baroque pearls, and have developed quite a partiality for their irregularity of color and form.

Before that time I hardly knew there was a baroque pearl—or what the word meant. The word baroque applies particularly to pearls, and simply means irregularities in form, color, etc.

My sister happened to be stationed in Japan when my interest in lapidary work was quite new. Casting around for something to send me, she found that the pearl industries in Japan, in grading their cultured pearls, had for some time set aside the pearls of irregular shape, and those not the favored creamy white of commerce.

A vogue was just beginning for the use of these pearls. There was on hand an accumulation of pearls of varied shapes; some oval, some round with a curved piece attached, or indented on one or more sides, a few even shaped like tiny seashells — all definitely not what the jewelry world was accustomed to. The colors were different, too; some blue, some pink, some blue-gray, some shaded or iridescent—but all had the lovely soft luster and gleam of real pearls. And—in price they were far below the cost of the usual cultured pearls! A half dozen were in the first lot she sent to see if I liked them. The color and variations so intrigued me that, although I hadn't the vaguest notion of how I would use them. I promptly asked for more.

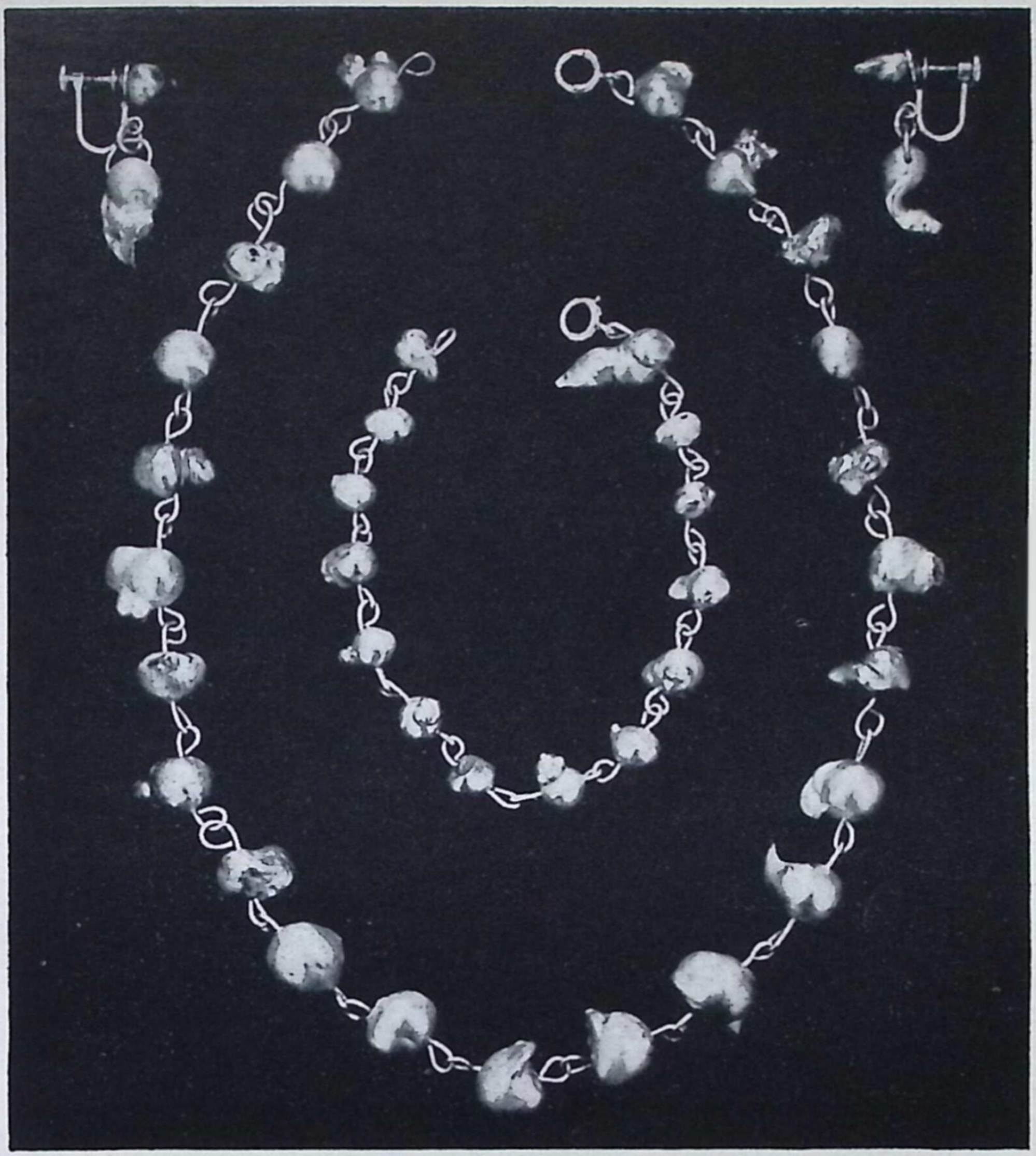
The pearls arrived and for some time they stayed in my jewelry box while I turned over in my mind ideas of how to set them. All were undrilled, of varied shades of blue, shading into a blue-gray and steel gray. I liked the most irregular the best. Silver seemed the best medium for setting, making a beautiful background for the blue and gray of the pearls.

One day, in looking through a magazine on archeology, I saw some pictures of Indian shell artifacts, the designs curiously modern, although so old. I adapted a motif from the center of one of these ancient shell amulets, and soon sketched a design for a brooch.

I used a compass to make my design symmetrical, and drew the design on the silver. Then I cut it out with the jeweler's saw. I sawed out two pins before I was satisfied. To give it depth I made the sawed-out brooch top slightly repousse, using a hammer and lead pan. I wanted it light for wear, but not to *look* light, so a narrow ring was soldered on the back of the pin, around the outside circumference, so that from the edge it looked heavier, yet was actually light-weight. Then all I had to do was solder on the clasps for the pin, slightly above the center, of course, so it would not tip forward in wearing, and the background for my first pearl was ready.

I had decided one pearl in the center of the design would accentuate the beauty of the pearl—and the design. So, with a friend's power tool, a hole was drilled half way through a fair-sized pearl, and a short spike of silver wire (about ¼″ long) was soldered to the slightly indented center of the brooch. The spike was then filed down to the proper length, so that when the pearl was impaled upon it, the bottom of the pearl rested flush on the silver base of the pin. Then pearl cement (purchased from a jeweler) was used to make the pearl secure on the brooch.

The finished pin was so lovely—to me—and to my friends (judging from their comments), that I wanted earrings to wear with it. Using the outside section of the design of the brooch, I made

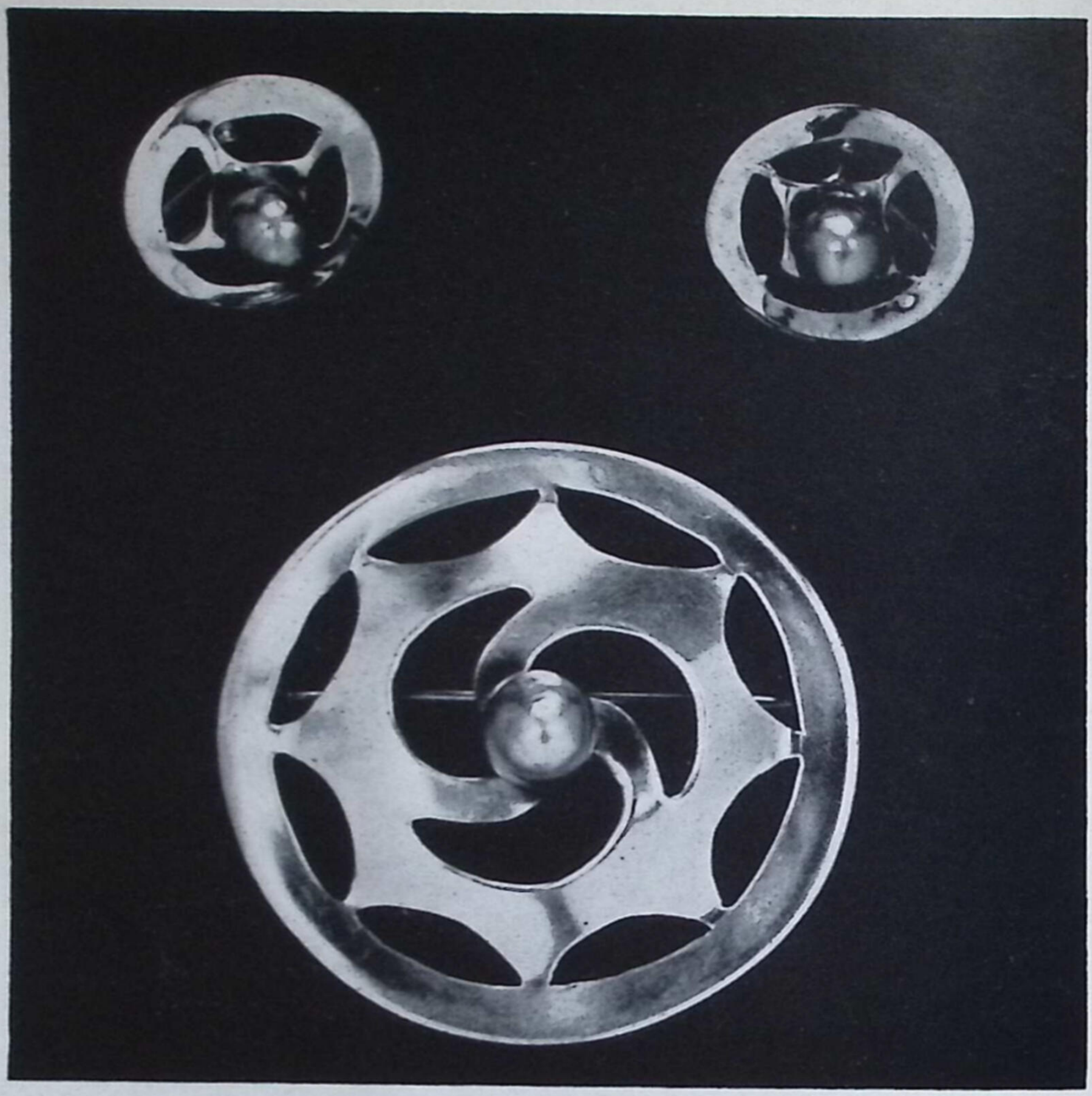


Necklace of baroque pearls with matching earrings, described in the accompanying article.

a design in silver for the earrings, and set one pearl in the center of each, similarly cemented on a tiny silver wire spike.

More time went by, and occasionally I opened the box and fingered the pearls, while I wondered how best to use them. At last I decided I was going to make a jewelry set of the pearls themselves, using silver only for the necessary links to join the pearls, and without any extra links between. So I embarked on the making of a necklace, bracelet and earrings of cultured pearls—blue—baroque something no one else had, as far as I knew.

I made the bracelet first, choosing small, dainty pearls, but those of the most irregular shapes. Then I made the shape of the links to harmonize with the shape of the pearls, so that the rings, too, are irregular. I measured and cut a length of wire for each pearl, long enough to make a loop ring at each end. Each new length of wire was threaded through the previous loop ring, and the new ring closed in the old. Then the pearl was slipped on and the wire end closed in a loop. I used a pair of pliers in either hand; one round nose and one flat nose. At the end of the bracelet I used the most irregular pearl of all,



Brooch of silver with matching earrings, each piece set with a large baroque pearl.

shaped like a tiny seashell, as a dangle. A simple spring clasp was used for closing.

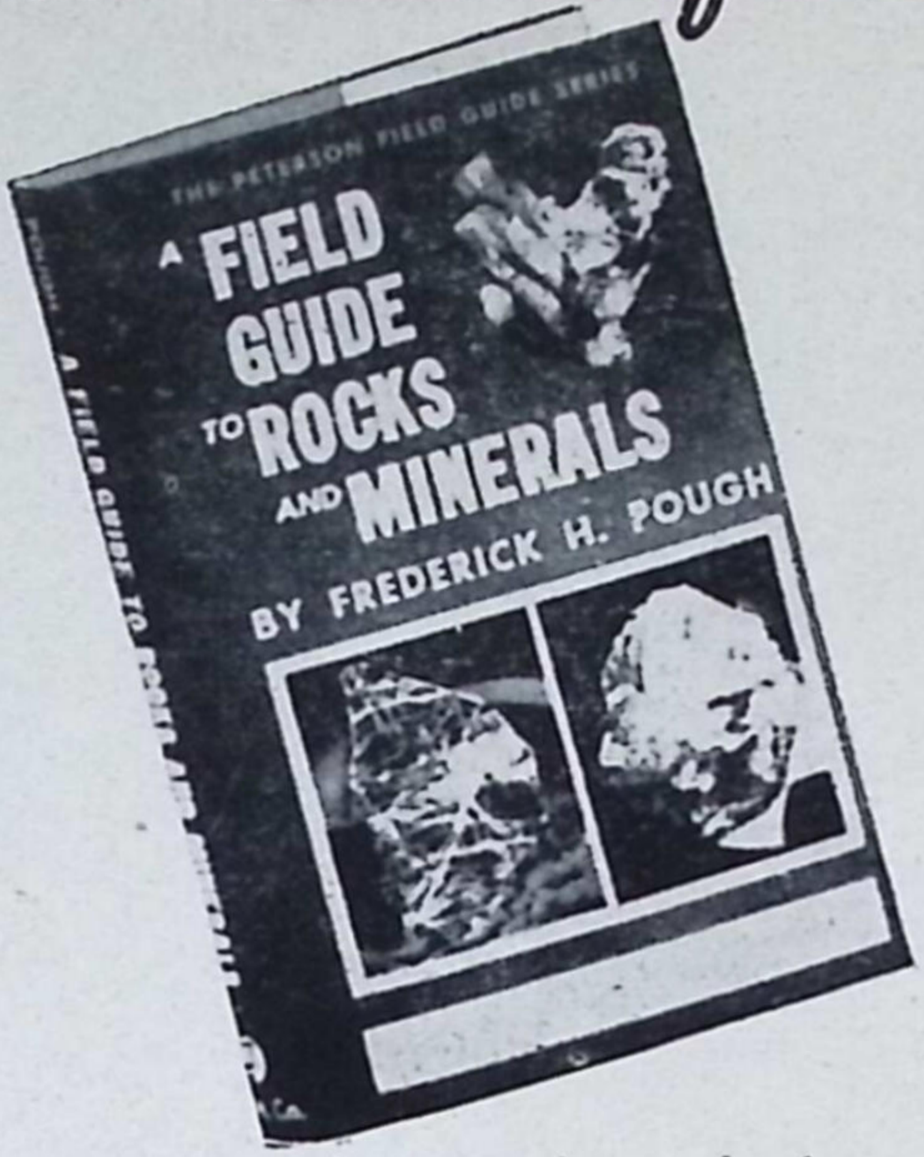
The necklace was made next, choker length, of pearls selected this time for the largest sizes I had available; about three or four times the size of those in the bracelet, and graduated in size from the center of the necklace. Before drilling, to make it easy to wear, I selected the flatest side of each pearl to be worn against the neck. The links were made in the same way, again irregular in shape to fit the pearls as they were linked together. A larger spring clasp was used for closing.

The earrings are the pieces I like best of all. I had two seashell pearls left, and used those for dangles, with small, slightly pointed pearls as buttons above the dangles. The seashell pearl dangles of the earrings were drilled half through, from each side, and then an irregular wire loop cemented in each side. The button pearls were cemented on the ear screws.

I learned that it was quite easy to drill the pearls, requiring the use of only three hands! I had acquired a hand power tool by the time I was doing this drilling, and called in a friend for the third hand, to steady the proceedings. I figured I would need a drill bit the size of the wire I wanted to use for the links so took my wire to a hardware store to match it. For a person whose background is that of housewife and office secretary, that amounts to a major engineering achievement! To hold the pearls while drilling I made a jig

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FREDERICK H. POUGH

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from the soft wood of one of my young son's discarded building blocks, simply hollowing with a knife a small depression the size of the various pearls for the pearl to rest in.

Getting back to the three hands—two hands were required to hold down vibration while drilling the pearl, to keep the tool from wavering around and scratching the surface. The third hand held the pearl in the jig, and when it was too hot to hold, it was time to turn off the drill and let it cool. Then I drilled again, as many times as needed to go on straight through the pearl. My jeweler friend later told me he was amazed the pearls weren't drilled crooked, or burned, when he reflected on the care used in fine jewelry shops in drilling pearls. He claims that in such a shop pearls are carefully measured and drilled from both sides, a very little at a time. The only ones I used this procedure on were the earring dangles. In the cultured pearls I found that sometimes the core in a very few of the pearls was loose and slid around until the drill bit into it.

The necklace and bracelet about exhausted my store of pearls, together with a few used as gifts and for swapping. But I have a new project in the back of my mind. I have lately noticed ads of dealers in various cities featuring baroque pearls, so I'll soon replenish my supply.

Lapidary Journal readers probably won't think my accomplishments as exciting as they were to me—but, gosh, I had fun! And—isn't that what we all get out of our lapidary hobby in many different ways?

◆ ◆ ◆



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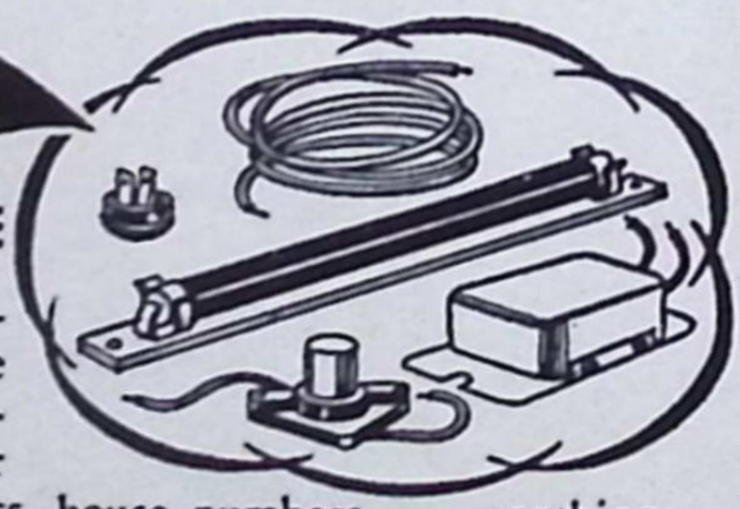
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◆ Collecting Jade In Korea

By CAPTAIN GEORGE W. OWENS
7500 Ellington Drive, Aero Vista, El Paso, Texas

It was a nice sunny California day in May 1952 when the news arrived. If I remember correctly, I was in the garage cleaning a beautiful group of quartz crystals that my wife, Dora, and I had dug from our "secret" location when I received a telephone call from a friend telling me that I was alerted for assignment to Korea.

Aside from the thousand and one things necessary to arrange I immediately started a campaign to obtain locations of minerals in Korea. Several dozen letters were dispatched to friends and to friends of friends. An astonishing fact became evident as the replies flowed in—most of the mineral resources of Korea were located above the 38th parallel in *North Korea!* Since I felt it would be rather difficult to collect specimens in that area I abandoned what plans I had for obtaining large scheelite crystals, etc., and determined I'd do what I could to open the area for future collecting.

Shortly after being alerted I found myself standing facing the sea in a beautiful little valley a handful of miles from Pusan, Korea—a couple of heavy duffel bags in my hands and a vague idea of swapping cigarettes and candy bars for art treasures that would astound my friends and have the Smithsonian Institution begging for the privilege of displaying my art. Ah—how great the distance between fact and fancy!

Let us skip the next two months, during which time this neophyte became a full-fledged Combat Crewman and an expert on where not to find objects of Oriental art.

Numerous trips throughout the surrounding countryside from our airbase convinced me that there were no large collectors' items and precious few small ones to be had. Korean art carvings in precious stones were as scarce as the proverbial hen's tooth.

During the course of the next month I was most fortunate in making the acquaintance of a Korean gentleman, Mr. Kim Sick, 228 Pujon Dong, Pusan, Korea. He introduced me to a gentleman who had at one time held the post of Curator of the King's Museum. Now things were looking up! Over the period of the next six months a small but steady trickle of amber, coral and jade pieces found their way into my hands. All of this was not easy, for the Korean people treasure their few remaining possessions and only part with them because of absolute necessity.

In several instances small carvings were presented for my admiration, but they could not be bought. Twice I was presented with jade objects for which I could not pay. The Korean people are a proud people, they have a fierce desire for freedom and they are deeply appreciative of the efforts of the American soldier.

The history of Korea for the last three hundred and sixty years is the history of a subjugated people. Prior to that time (1592) the Koreans led the world in art and invention, of both peaceful and warlike nature. History gives them credit for the first moveable type, without which the *Lapidary Journal* would cost many many times its present price, if, indeed, it could be printed at all. They also were first to use iron clad monitor ships for purposes of war. The Korean people believe that war is an evil, but sometimes a necessary one. It interferes with the true purpose of man—the advance of civilization.

Korea is a small country, yet it has been said that if it were "ironed" out it would cover the world. Never have I seen such terrain! Mountains all over the place. These mountains are rich in wealth and beauty. Gold is abundant. Amethyst, quartz crystal, silver, copper, lead, zinc, tungsten, scheelite, as well as nickel and molybdenum are present. This wealth of minerals is undoubtedly one of the basic reasons for the desire of others to control the destiny of Korea.

But enough of general things; back to collecting.

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5. **AGATE, Mexico:** (a) Most colorful nodules available. Mixed medium sizes $1.50 per lb. (b) Small nodules 75c per lb.

6. **AGATE BAROQUES or NUGGET GEMS.** (a) Many fine varieties beautifully finished in mixed sizes. $3.00 for ½ lb. (b) We are tumbling large quantities of fine Brazilian materials such as amethyst, aquamarine, tourmaline, as well as tigereye and turquoise and other interesting materials. 25c to 80c per stone, according to size and material.

7. **OPAL, Mexico:** Red, Cherry and fire opal cabochons. 45c to $1.00 each, according to size. (b) Cherry and red opal rough, medium to large pieces. $1.20 per oz. (c) Cherry opal with matrix attached. 40c per oz. (d) Fire opal in matrix, mine run, $3.00 for ½ lb.

8. **SMOKY QUARTZ, Brazil:** Cairngorm variety, faceting grade. $3.25 per lb.

9. **WULFENITE, Mexico:** The largest and finest stock available, including brilliant vanadinite on orange wulfenite. Please indicate size of specimen desired for price quotation.

10. **THOMSONITES:** (a) Highly polished North Shore pebbles of fine grade. 75c to $1.25 each, according to size. (b) Unpolished pink thomsonites (Minnesota) in mixed sizes at $2.00 for ¼ lb.

11. **GRINDING WHEELS:** L and M Bonds made by The Carborundum Company, the largest manufacturer of wheels and abrasives. We recommend these as the best possible wheels for general lapidary purposes and especially for grinding agate. (a) No. 100 grit 6x1" $3.50. (b) No. 220 grit 6x1" $3.75. (c) No. 100 grit 8x1" $5.25. (d) No. 220 grit 6x1" $3.75. (e) No. 220 grit 8x1" $5.50. Arbor hole reducers furnished on request.

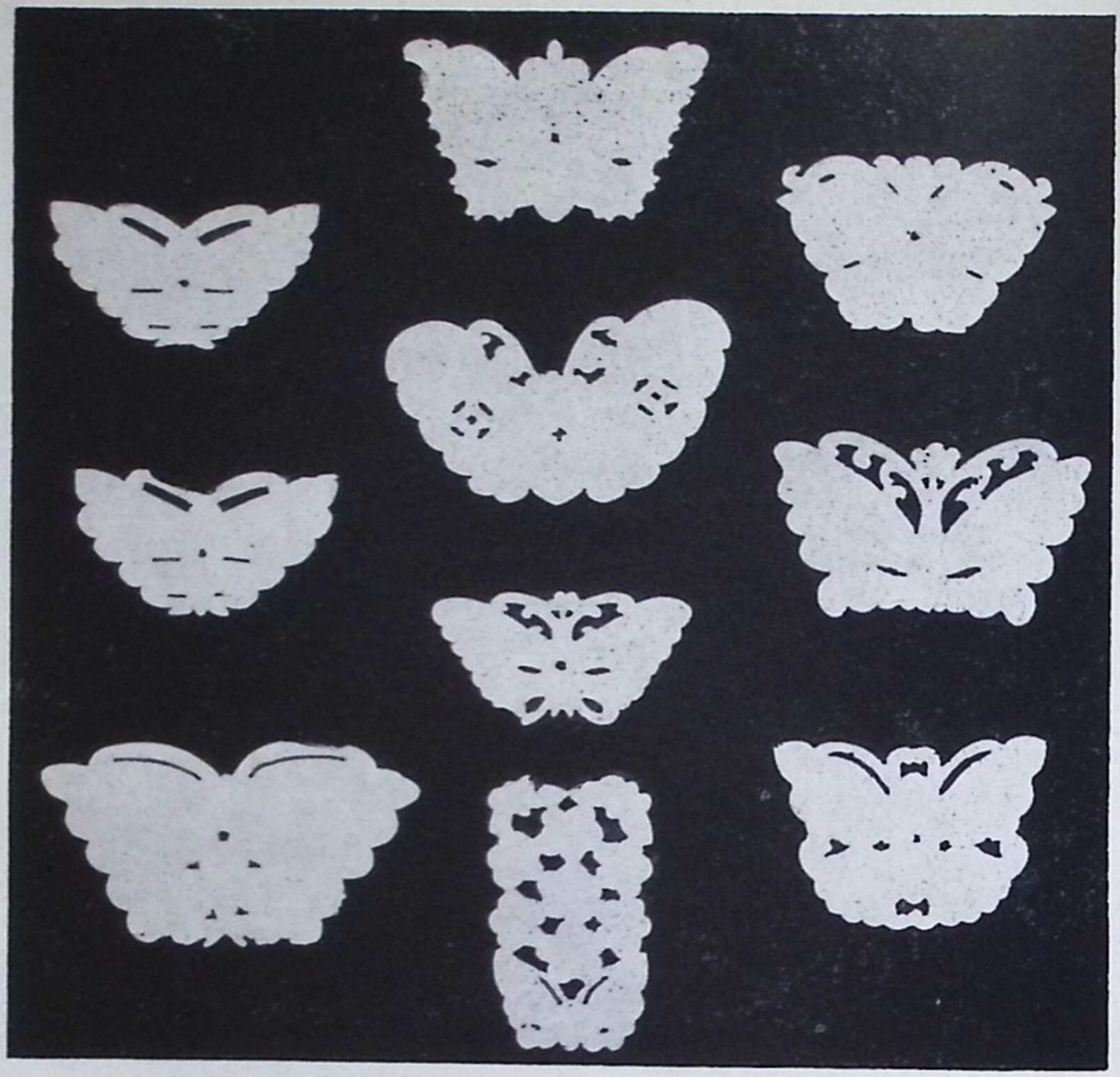
12. **ABRASIVE GRAINS and POLISHING POWDERS:** (a) No. 80, No. 100 and No. 220 grits 73c for 1 lb.; $2.50 for 5 lbs.; $3.40 for 10 lbs. (b) No. 400 grit 75c for 1 lb.; $2.95 for 5 lbs.; $5.50 for 10 lbs. (c) No. 600 grit $1.30 for 1 lb.; $4.45 for 5 lbs.; $7.30 for 10 lbs. (d) Cerium oxide $2.65 per lb. (e) Levigated alumina 75c per lb. (f) Tin oxide $2.00 per lb. (g) Chrome oxide 95c per lb.

MINIMUM MAIL ORDER $5.00 plus postage and 20% Federal tax on taxable gem materials. In keeping with the usual trade practice, all orders must be accompanied with a remittance to cover the value of the materials mentioned in this advertisement. All materials are sent on a ten day approval basis. Satisfaction or your money promptly refunded. Open week days 9 to 5. Closed Sundays. Our comprehensive retail price list of gems, gem materials and lapidary supplies is now available at cost. Price 45c. Our wholesale price list No. 7 is now available to dealers.

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Series of jade butterflies described in accompanying article.

The amber I collected is not impressive, the few pieces being cloudy or exceedingly checked. However the workmanship is very good. The Koreans seem to value amber much more than we do.

The corals are the most beautiful I have ever seen. The color is a deep orange-pink. The carvings reveal the ability of the craftsman for they are perfect. Most of these coral pieces are carved to represent sea life. However one pair of ear rings are perfect replicas of small bean pods. One choice piece of coral is five and a quarter inches long. It is a hair pin with the top carved to represent a flowering vine. Unfortunately this is one of two pieces (the other being a red and white jade cup) that were broken in shipment to the States. They have since been mended and now have a prominent place in my collection.

The jade pieces are mostly white jade. Two are red and white, several are green, with one or two pieces grading into a deep off color of tannish white. There are, in addition, four pieces that I believe may be "grave" jade because of the discoloration present.

Some of the jade pieces I collected are:

9 White jade butterflies—from 31 x 58 mm. to 50 x 85 mm.

6 Extremely good white jade carved hexagon pieces 40 x 40 mm.

1 Very good white jade butterfly and honeycomb with brass clasp, 45 x 80 mm.

1 White jade butterfly with 2 bees and 7 flowers. 36 x 65 mm.

1 White jade, fish design, relief work. 58 x 70 mm.

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No. A—Gems from ½ to .90 carat, sky blue color, good star, per stone.$ **6.00**
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No. 300—Skl blue gem, good star, 3.65 carat, 8x6½ mm..... **18.00**
No. 400—Cornflower gem, medium good star, 4.81 ct., 10½x8½ mm.. **25.00**
No. 500—Cornflower gem, medium good star, 5.01 ct., 10x7½ mm. **30.00**
No. 600—Medium blue gem, medium good star, 7.30 ct., 10¾x8 mm.. **38.00**
No. 700—Medium blue gem, very good star, 3.80 ct., 10½x6½ mm.. **20.00**
No. 800—Light gray stone, weak star, 3.75 carat, 9x8½ mm..... **5.00**
No. 900—Light gray stone, weak star, 10.03 carat, 11x10 mm.....**12.00**
No. 1000—Blue gray gem, weak star, 10.12 carat, 11½x9½ mm..... **35.00**
No. 1100—Medium blue gem, weak star, 8.20 carat, 11¾x9½ mm..... **40.00**
No. 1200—Cornflower gem, medium good star, 7.07 ct., 9¼x8¾ mm.. **45.00**
No. 1300—Cornflower gem, good star, 5.25 carat, 10x7½ mm..... **55.00**
No. 1400—Sky blue gem, very good star, 5.49 carat, 9x8¼ mm..... **66.00**
No. 1500—Sky blue gem, good star, 12.44 carat, 14x10½ mm..... **125.00**
No. 1600—Dark gray-blue gem, good star, 17.76 carat., 17 mm. round. **260.00**
No. 1700—Sky blue gem, good star, 14.04 carat, 15x11 mm..... **168.00**
No. 1800—Medium blue gem, good star, 11.38 carat, 13x9 mm..... **170.00**
No. 1900—Dark blue-gray gem, good star, 10.50 ct., 11¾x9½ mm..... **130.00**
No. 2000—Medium blue gem, good star, 9.95 carat, 11x9 mm..... **120.00**
No. 2100—Violet blue gem, good star, 7.35 carat, 12x9 mm..... **125.00**
No. 2200—Sky blue gem, good star, 8.54 carat, 12¾x7¼ mm..... **70.00**
No. 2300—Medium blue gem, very good star, 7.17 carat, 11x8 mm.... **90.00**
No. 2400—Cornflower gem, very good star, 6.31 carat, 9¾x8½ mm... **120.00**
No. 2500—Medium blue gem, good star, 6.30 carat, 9½ mm. round.... **35.00**
No. 2600—Cornflower gem, medium good star, 5.82 ct., 11¼x10 mm.. **90.00**
Black star sapphires, finest quality, very good stars, sizes 3-8 carat stones, per carat..... **8.00**

PARCELS

All Star Sapphires in these parcels have good to very good stars. Color gray-blue, sky-blue, medium-blue; some violet.

Parcel—¾ - 2 carat assorted gems, 20 carat parcel.....$ **40.00**
Parcel— 2 - 5 carat assorted gems, 30 carat parcel..... **75.00**
Parcel— 5 - 10 carat assorted gems, 50 carat parcel..... **400.00**

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Pieces Approx. ¼ - ¾", in Parcels

Parcels of:	Per Parcel
10 grams	$ 1.50
50 grams	6.00
100 grams	10.00
1 pound	37.75

Pieces Approx. ½ to 1", in Parcels

Parcels of:	Per Parcel
10 grams	$ 2.00
50 grams	7.50
100 grams	12.00
1 pound	45.00

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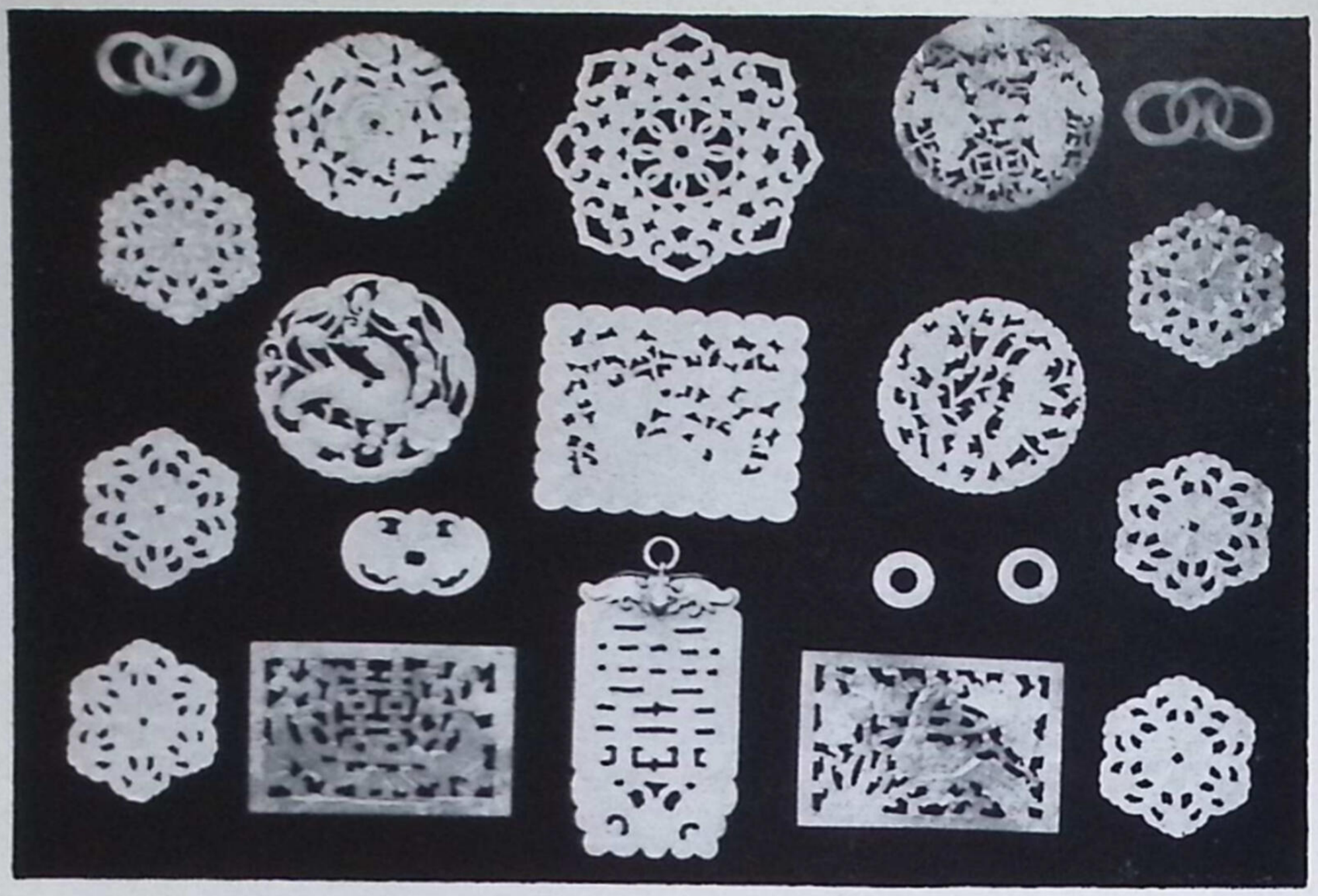
No. 1 Quality: Boules, from 135-200 carats, per carat.....$ .20
Fractions, of approximately 50 carats, per carat..... .25
No. 2 Quality: Boules, from 135-400 carats, per carat..... .14
Fractions of approximately 50 carats, per carat..... .18

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Some of the author's best jade pieces. They are described below.

1 White jade hair pin back, 70 mm. diameter.

1 Parrot design white jade, 60 mm. full circle.

3 White jade leaf design full circles, 55 mm.

2 Tan Jade, flower design, 47 x 72 mm.

2 White jade snuff bottles; the largest 65 mm. high.

2 Matched white jade relief carved dragons, 30 x 42 mm.

1 White jade relief carved dragon, 30 x 32 mm. Same dragon as the 30 x 42 mm. pieces. Excellent.

1 White jade pumpkin (?), 40 mm. high, 20 mm. thick.

1 White jade Hondo, 40 mm. long. drilled.

1 pair White jade earrings, full circles, 16 mm. diameter.

1 White jade bat. 25 x 40 mm.

1 White jade 48 x 56 mm. dragon carved piece. The prize of them all.

1 White and green jade heart and vine, 28 x 44 mm.

1 Green jade flower 28 x 25 mm.

1 Green jade Hondo, 40 mm. long, drilled.

1 White hairpin back 63 mm. diameter .

1 Pair red and white jade cups, 46 mm. high, 56 mm. diameter.

1 Cream color jade cup, 46 mm. high, 62 mm. diameter .

1 Tannish color jade cup and saucer (since presented to my good friend Charley Crosby of the *Los Angeles Lapidary Society*).

I believe that some two thirds of these articles date prior to 1592 and most of the balance to within one hundred years of that date. I am not an expert on jade nor do I pretend to be but I have taken the appraisal of my Korean friend for he had nothing to gain from advice. Any expert appraisal would be welcomed.

There was a time or two during my Korean "visit" when I thought my collecting days were at a sudden end but that passed and now I've listed the pieces I collected and I hope you have enjoyed some of the pictures and the story as much as I enjoyed collecting the items, even if none of them will cause the Smithsonian to beat a path to my door. I made many Korean friends while in pursuit of that elusive

ANNOUNCING

That we have recently opened Michigan's most complete lapidary and rockhound supply center. We have available leading lines of equipment and supplies including the products of such well known manufacturers as Hillquist (Lapidary Equipment Co.), Gemlap (Lapidary Hobbycrafts, Inc.), Poly Products, M.D.R. Mfg. Co., Sapphire Units, Felker Mfg. Co., Ed. J. Goodwin and Fred S. Young Co.

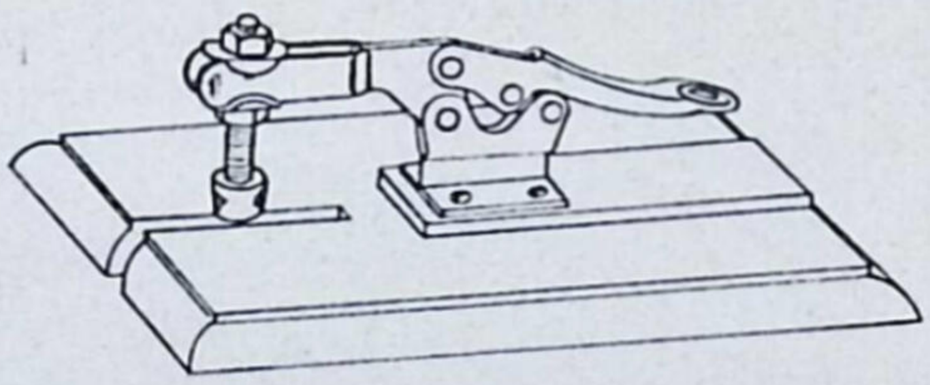
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We carry an especially large stock of a well known make horizontal cup type grinding wheel—6" O.D. x 1" thick with 3/16" thick metal back having ½", 5/8" or ¾" arbor holes. This wheel was developed by one of Michigan's most experienced cutters and it will outlast many ordinary type grinding wheels. Available in 100, 220 and 320 grit sizes. Each $9.95. Shipping weight 7 lbs.

A NEW HIGH SPEED THIN BLADE TRIM SAW
THE LITTLE FELLOW

Of special interest to cutters working with opal and expensive faceting materials is the recently developed Goodwin Saw which mounts a 4¾" Elgin Diamond Saw Blade only 12/1000 inches thick. This ultra-thin blade offers a big advantage over the usual diamond blade which removes approximately 3/32" of material in the saw kerf. This saw comes as a complete unit. All you have to do is add coolant and plug it in. Price $30.00 complete F.O.B. Ferndale, Michigan, $25.00 less blade.

Please include parcel post charges for 10 lbs.



You are sure to be interested in this recently developed tool which makes child's play of the troublesome job of locking a gem stone in a bezel. A well designed clamp holds the stone firmly in the mounting, leaving both hands free to adjust the bezel tightly to the contour of the stone. With this handy little gadget, mounting a stone can easily be a matter of minutes instead of hours and with practically no chance of damaging the gemstone.

Honestly, wouldn't you like to get rid of your burnisher and the sore hands you get when you use it? Price $5.50 net each F.O.B. Ferndale, Michigan. Complete with directions for use. Dealers' inquiries invited.

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Linde "A" ½ lb. jar factory packed and sealed. Guar'd uncontaminated.$9.00
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per lb.	12.00
Slabs (minimum 4"), per inch	1.50
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Slabs (minimum 4"), per inch	.30
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Slabs, per inch	.30
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¼-lb. Sunstone	$2.60
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Pendant with chain, gold filled or s. silver, with amethyst or topaz citrine hearts	3.75
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Agate Marbles, genuine—Large size	1.50
Small to medium sizes	1.00
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with 70 different minerals	3.90
Bulk Assortment of $10.00 worth of mineral specimens, our choice for	6.75

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"big find" and learned again the simple lesson that if you treat people decently you receive decent treatment.

I wish to express my thanks to Mr. Lim and his most capable and accomplished daughter, Miss Jung Hi Lim, without whose help as an interpreter my collecting would have been a complete failure.

None of the jade mentioned is for sale but if you are coming through my section of the country I will be happy to meet you and proud to display it for your pleasure.

* * *

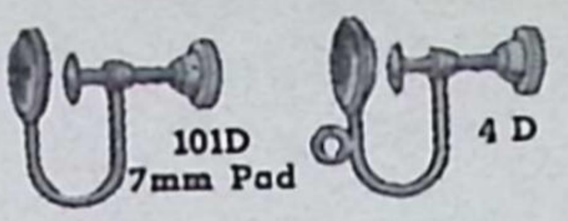


Exhibit of the Idaho Gem Club shown at the September meeting of the Northwest Federation of Mineralogical Societies convention at Portland. Against a painted panel the State of Idaho is shown in gemstones, with each county in the state made from a different gem material, all of them found in the State. This exhibit drew great attention.



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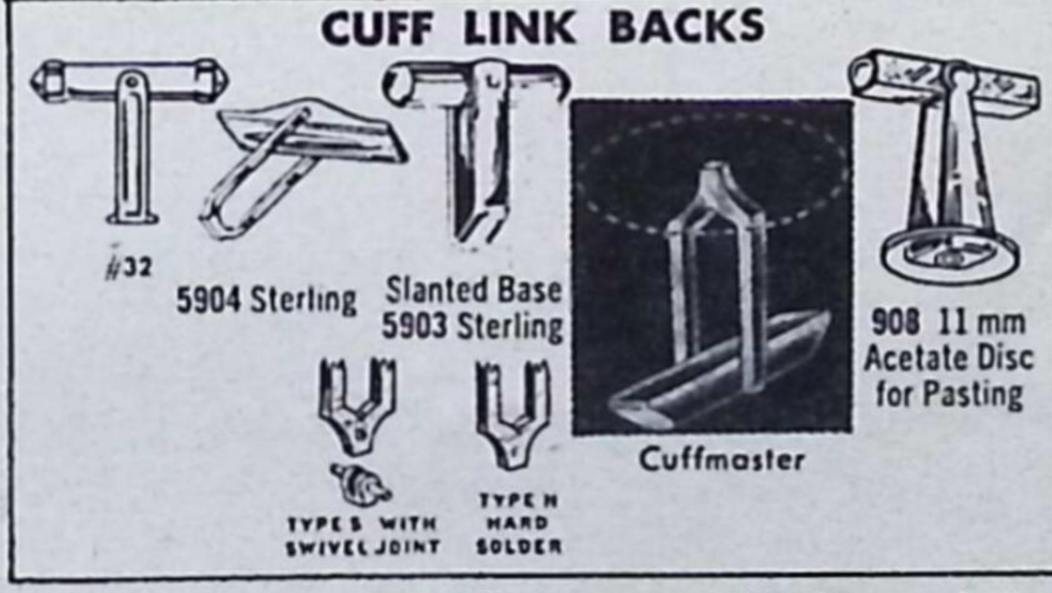
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So You Want to Carve Gems

By GORDON S. KENNEDY

It is the intention of the author to write a complete book on gem carving. The chapters will appear as a series of articles in the Lapidary Journal. Detailed information and projects will be given. With the subsequent articles in this series as a guide no one should hesitate to enter the carving field. This first installment treats the subject broadly, promising pleasure and advancement into actual projects to come. The outline the author has planned will teach enough of the art work to support good carving. The series will demonstrate the mechanics clearly and carry the reader through most problems that may arise. A short biography of Mr. Kennedy appears on page 448.

the purpose of gem carving

The major purpose of carving gems and other allied materials is to develop self expression beyond that which can be shown through other lapidary forms. It provides relaxation and the stimulating pleasure of work for the carver. It conveys his feelings and concerns to those who look at his finished pieces of work. It utilizes beautiful materials, greatly enhancing their natural color and charm, bringing out many interesting things about them. Gem carving is the crowning step of advancement and the final lapidary achievement. Through gem carving expression and symbolism we achieve a better understanding of art and craft so necessary in our present day mode of living.

necessary ability

Lack of ability should be of little concern to those who wish to carve. If your talents have supported you in cabochons, faceting, flats, spheres, etc., you will find you are ready to advance into carving. Many of us who have failed in work requiring symmetry principally will find great ease in doing artistic shapes and contours. The carver may well be much more concerned about the *meaning* and *idea* of his work than the perfection of mechanical procedure.

requirements for carving

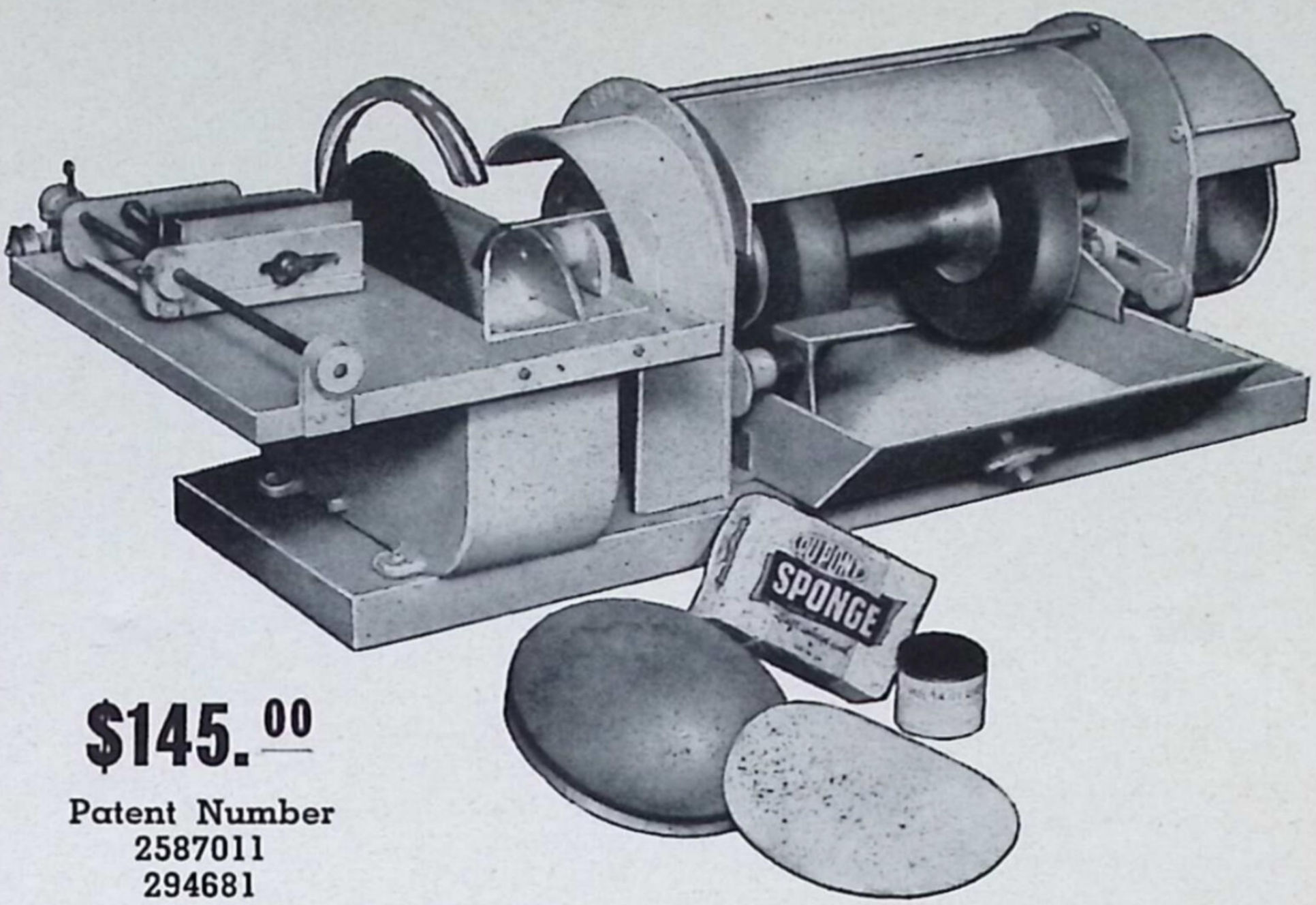
The requirements for some simple but effective carving projects are largely time in proportion with the estimated extent of the job, material of quality worthy of the effort, a shop or place to work, facilities, such as most of us already have, plus a small amount of reasonably priced special carving equipment which the author is arranging to make available. The most important requirements of all are *interest* and *desire*. It is largely desire that has carried me to successful carving in so many materials.

When I started very little or no information was available on the subject of how to do gem carving. My time and money were very limited. My background was an advantage, but most of the hazards I encountered were of a mechanical nature, not to be overcome through past artistic experiences. Since it is my intention to unselfishly write a series of articles on carving, giving the mechanics and highlights on the artistry connected with the subject, advancement should be comparatively rapid.

encouragement through history

To be sure, gem carving is not a modern fad, but dates back beyond written history to the Stone Age. It is mentioned in the Bible and it has played an important part in the religions of many ages of civilization. The true carving of most prehistoric people was done in materials softer than seven on Moh's scale. However, many pieces of harder materials have been unearthed showing ingenious utilization of the material; the natural shape with some carving. In many such cases the technique used is still a mystery.

The history of the carving art may be divided into two main categories: the expression of a message or culture and the making of utility pieces. Combination of the two is prevalent in some cases, especially in our present day liv-



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ing. In early history useful pieces were of greatest necessity. It was then learned that much meaning could be expressed through decoration, for early Man was capable of decorative expression and was able to influence other people peaceably and thereby to trade to advantage with them. Carving through the ages has been favored as the most permanent representation of the unwritten history of man. It has been responsible for the development and meaning of symbols understood by people of all ages all over the world.

The expression of meaning through carving of even the most simple designs was so vividly proven to me on the occasion of an attempt to sell some of my own mixed collection. I wished to eliminate most of my cabochons and some small simple carvings for the sake of greater concentration on better carvings. A gem dealer in downtown Los Angeles had invited me to come to his shop. After looking at what I had to offer he recognized the cabochons as good work in choice materials. Beautiful as they were, his well developed sense of merchandising attracted him entirely to the simple carvings. He picked up the carvings, gladly paying my price, and left me with the cabochons. His explanation, upon my inquiry, was that he could easily sell the carvings because they had *meaning*.

Carvings alone have been able, in many cases, to tell us the mythology and religious belief of prehistoric people. Then carvings were done in a very crude manner but I have seen authentic examples of striking perfection. As the art advanced it enjoyed great favor among rulers and was encouraged to play a great part in the path of culture. The modern history of carving is most interesting however to those who wish to carve. Since it is the purpose of the author to dwell upon how to carve rather than upon history, let us look briefly into modern history for a lesson that cannot be taken from examples of work done by crude or unknown means.

We may have been prone to forget about art during our cutting of flats, cabochons, spheres, etc., but that, perhaps, is the very proof of our interest in natural art, which is the greatest source of artistic subject material, much needed for carvings of the future. It is not modern to copy from history, but to do our own bidding in our choice of materials.

A fairly recent jade carving, supposedly of great importance, was done in a Chinese motif. The piece was well done and we realize it was achieved by means of modern tools and equipment, but think how much more fitting it would be for an American to do American subject material in American jade. I say this with great respect both for the artist who did the piece and the Chinese jade carvers, for both deserve credit wherever carving history is mentioned.

In the past tools and equipment presented a great problem and practically controlled the style of work. Today it is possible, without great cost, to surpass the achievements of history, both in soft and hard materials. The large carvings publicized during the last few years are proof of this. The many stories of buried treasures in history bear out the fact that portability is a great factor in deciding the size of a carving. The great value placed on our time is the deciding factor in choosing which material to use. The softer materials are far more readily worked into carvings of which the cutter may be proud.

During the customary question and answer session held in conjunction with my lectures on gem carving, I am often asked for comments on the reason why so few Americans have carved gem materials. It may be true that we do not often hear of such things, but the fact is that the American people are fairly blooming forth with artistic inspiration and desire. If we encourage originality, our success in gem carving will soon render great pleasure. America is fairly young and the many exhibits of fine gem cutting I have seen proves that we are not entering a state of confusion, but that we are venturing into an age of art that can well keep pace with the modern way of convenient living.

the fascination of carving

I cannot visualize any picture more pleasant than that of a carver at work, perhaps with a piece or two of finished work beside him, relaxed, with his tools at hand and a suggestion of inspiring subjects, models or sketches showing in



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the background. Such has been the case through many pleasant evenings in my little shop at home. Many times I have happily spent entire evenings in the living room or den with my wife and daughter discussing and planning a project in which we all took part, studying the material of a week-end field trip, deciding what to make of it and preparing a model from which the final work was done. This family spirit carried into our work has prolonged the pleasure of many outdoor experiences and has utilized expressive subjects of nature observed on the field trip location.

One of the greatest fascinations of carving is in the observation of your own progress. It becomes a matter of regular procedure to look upon your own work with a critical eye; to note your improvement. Your appreciation of hand work will grow immensely, even to the extent that you can enjoy quality and meaning in other hand work that you may not have understood before. So great is the pleasure of developing designs for your choice material that you will find yourself willing to invest much care in them. This care alone will express meaning to others and will bring out their compliments, encouraging you to continue developing your ability.

how to prepare yourself for gem carving

The thought of doing a phase of lapidary so different as carving could in itself turn some of us to doubt, but in proper preparation lies the basis of pleasant success. First of all most of us may not know which subjects to consider. Your choice can be easily made by thinking of the things you like and have seen so often in everyday life that have made the strongest impression on your memory. You need not remember every twist of their shape, just the general idea and approximate proportion will serve the purpose, thus developing your memory form and tentatively choosing your category of subjects. It would be well for you to consider the fact that most artists and craftsmen specialize in a single trend of subjects, such as animal or floral, for example, using these subjects so often that they are always at their command.

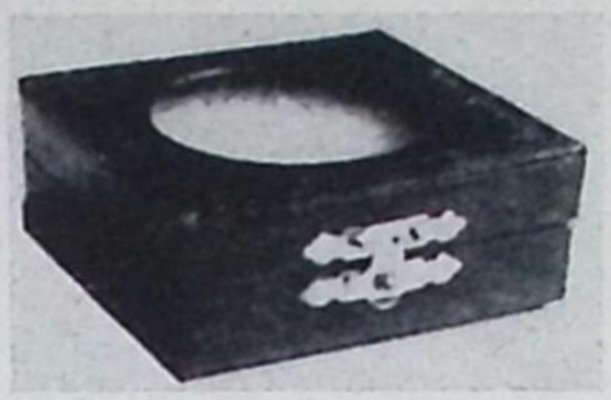
These same familiar subjects are used

for basic forms through which the carver can express nearly all of his feelings. The carver of animals may for example render mass through the elephant as a subject, but will probably choose the cat to show cunning and stealth.

We all have the necessary talent. The object of our early effort in design should be to find the individual specialty that our observation and background has best adapted us to. Some of us may be best at copying directly from nature, using actual proportions, while others may find that they are good at abstract designs. Take a pencil and paper, draw lines outlining simple shapes that form a pattern, and you may soon surprise yourself. The term "style" has a lot of meaning as applied to carving. "Style" is the individual manner of line or shape used to give expression. Allow *thought* of the outline or *form* of your chosen subject to become active in your mind and you will soon be able to put it down on paper as a sketch or carve it roughly in clay as a model for later work in an important piece of gem material. Although it has often been said that carving has a philosophy of its own, the carver must study the development of symbols and basic art principles (though they be simple at first) before he can sit down to carve with confidence.

symbolism in carving

I have concluded from many comments I have heard while exhibiting my carvings at gem and mineral shows that a considerable number of people think the Chinese have many more symbols suitable for carving than we have. This common opinion could hardly be disproven, but so many of the stories carried by carvings are told through the originality of the carver rather than by actual symbols. If you were to attempt the listing of all true American symbols, including those of the American Indians and finally those of our naturalized citizens, the total list of symbols would be surprising. The source of usable symbols cannot be a problem. It is the knowledge of them and the choice with which we should concern ourselves. Take symbols from religion, lodges, trade, sports, state or country, and you cannot miss. The family crest is a good idea. And to carve even a suggestion of any part or thing or character from a



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well-known event or story will serve to remind the observer of sufficient significance.

It is true that one often wonders what to carve in order to make the greatest possible impression on observers of a finished work. But after much thought has gone into the question one should rely on simplicity unless some very good complex scheme can be clearly conceived. This fact was noted by a college art teacher not too long ago. His students had gone "all out" to do impressive work, adding many subjects and much detail in each entry. But one slow worker in the class was only able to sculpture a single fish. Upon noting the judges' decision, the poor fish won the honors as an expression of simplicity. I was told the piece possessed good artistic quality and was easily understood. Simplicity in itself has great meaning.

suggested types of carving

In brief, intaglio is an incised design. Cameo is a raised design. Carving in the round is a complete three dimensional form. The carver should consider all of these, and practice them enough to become familiar with them, but he should specialize in one.

Intaglio is comparatively fast, because it requires the cutting away of little material. It is a method requiring very precise sharp cuts as a rule. Therefore it takes a lot of practice in manipulating the stone about a revolving tool in order to control the design. I have done an intaglio ring stone about the size of a nickel with the complete action figure of a man, showing good proportion, fine detail of limbs, face, hair, hands holding a wine glass, background of landscape, and vine with leaves. All of this on a single stone took lots of time and good aim with every cut. I enjoyed it and was praised greatly but my wife said, "never again." The type of intaglio for most of us should be simple monogram work —floral or scroll. It would be well to try cutting through a layer of one color into another if you have such material.

The sheer pleasure and fascination of cameo work is the greatest reason for its popularity among carvers. It is the kind of carving that utilizes nearly any material and eliminates much of the confinement of intaglio, without requiring the larger equipment used in carving in the round. It is possible in cameo carving of soft materials, such as shell, amber, etc., to sit in the arm chair and enjoy your work without making a muss. In cameos one can take advantage of working slowly, taking off a little material with each stroke of the tool, allowing maximum control and time for deciding each cut. It is a good type of work to begin on. Through enhanced light penetration the raised areas produce greater beauty in translucent materials. And of much advantage is the use of layers of color in natural lamination of materials. The simplest cameo is a credit to the carver because of polished highlights on even, rough or dull backgrounds. In this medium the carver has a free hand to express himself, even to the extent of pictorial work.

Carving in the round, or three dimensional work, is a very natural art. Only in it does one avoid the transforming of perspective into a plane. Due to the usual elimination of background, it is simple and direct. Working in the third dimension usually calls for the cutting away of much material, and except on small work, exercises a large scope of effort. It uses materials beautifully that look best in thicker sections. Contrary to a common belief, especially in the rounds, one should decide his own subject and style with an eye for utilizing the best in the piece, thereby allowing the shape of the material to merely suggest, but not control, the work.

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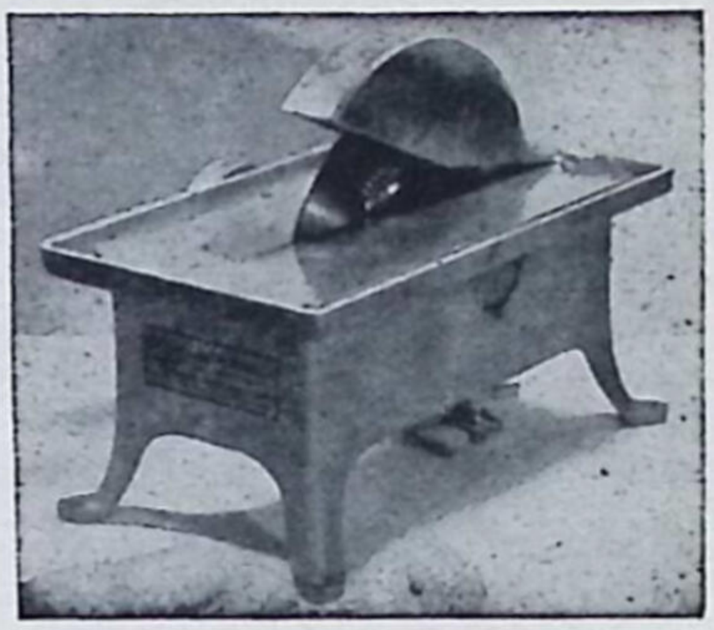
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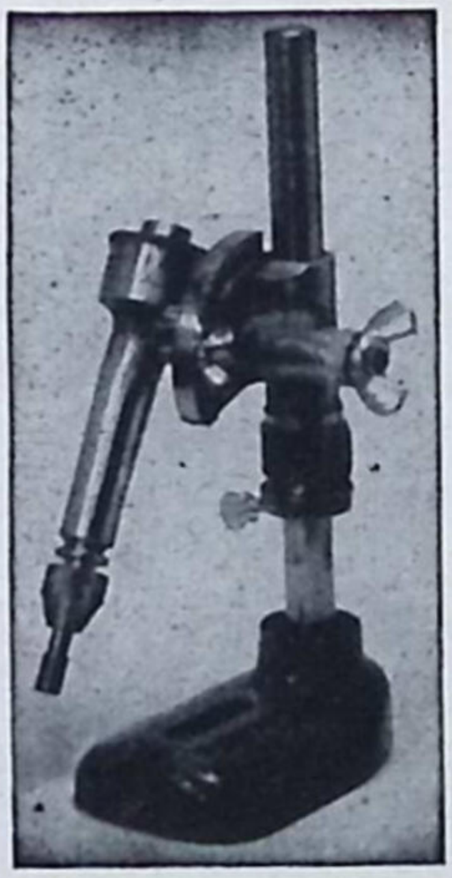
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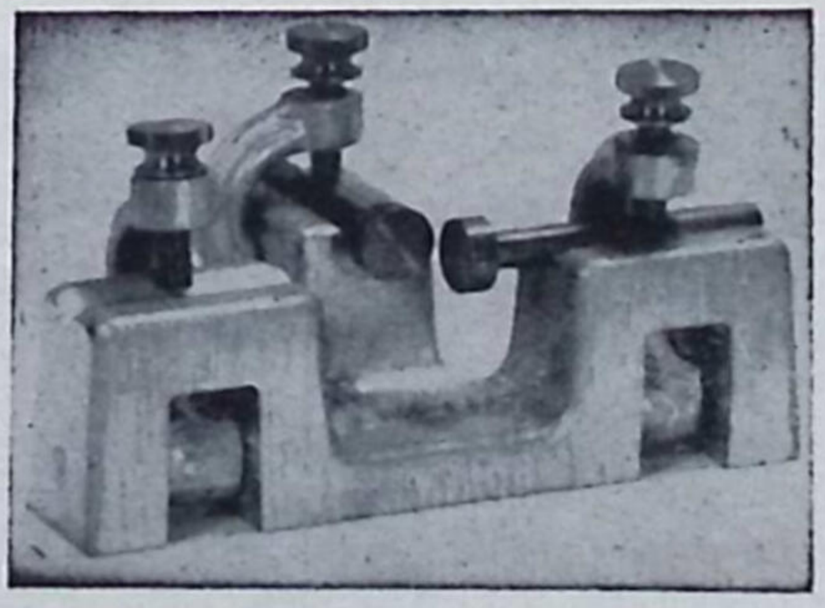


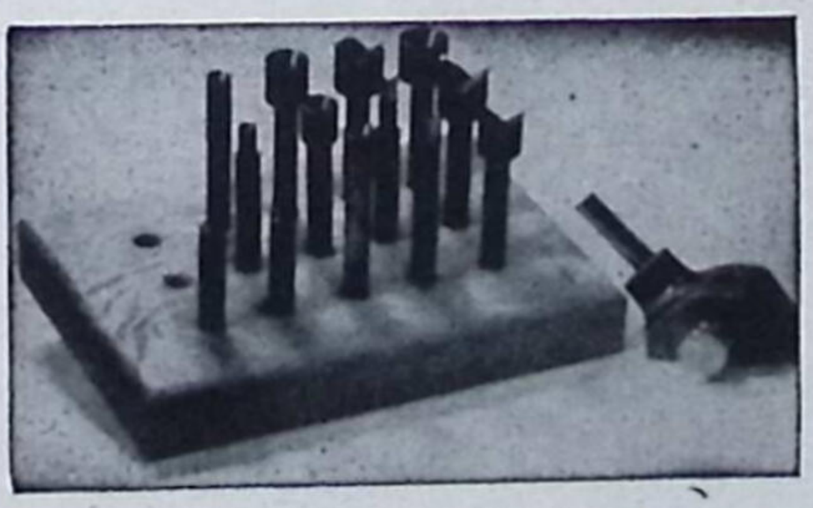
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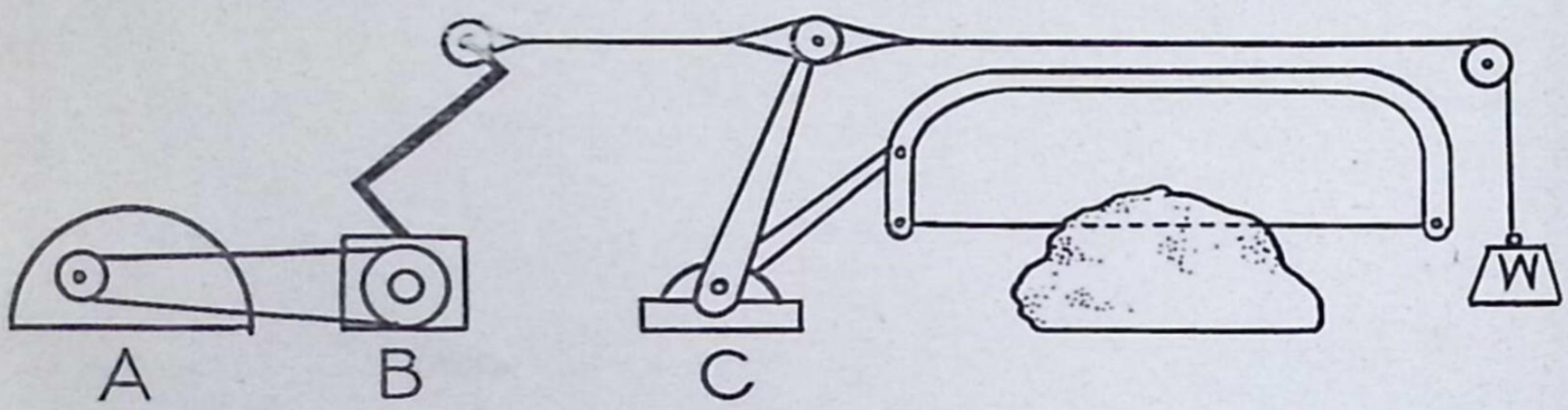
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By JEAN FOLEY
912 Virginia St., El Segundo, California

Most people with any time at all in the rocking dodge have expended no end of power and perspiration lugging big boulders down out of the hills and into their back yards where they have been falling over them ever since.

Some rhodonite rocks, much too large for any saw the writer has seen or heard tell of, sent him scurrying about like a questing Beagle searching for some way to whittle said rocks down into something usable, without money becoming involved in the process.



Quarter horse power motor (A) turns hand crank bench grinder (B) to operate wire saw on a 5/8" arbor (C).

It was an illustration in the book *Chinese Jade Carving*, by S. Howard Hansford, showing the four handed wire saw in use, that suggested a solution. The Chinese method consists of two callow striplings latched to either end of a big bow with a six foot wire for a string. The rock lies on a low table between them and, wearing expressions of wan boredom, the boys drag the wire back and forth while an old timer ladles grit into the cut and drones on and on about how rugged things were when he was a lad.

At this juncture, an idea fell with a soft plop out of nowhere. Why not rig the thing with power? So—what with digging oddments out of obscure corners, and experimenting in one way and another, the writer assembled the contraption pictured above.

It works! Slowly but inexorably—*it saws!* As an apprentice boy in China, Mr. S. T. Koo, a Los Angeles jade craftsman, used the wire saw. He tells me that the Chinese use three annealed black iron wires evenly twisted together. The wire gauge depends upon the size of the rock; the bigger the rock, the larger the wire.

It is surprising how long the wire will last. The writer changes wires about every four or five hours. A wire must not be allowed to wear down to the point where the cut is too narrow for a new wire. The wire will not readily stick in the cut because it wobbles about sufficiently to keep itself clear. A flake of rock or a slug of grit wedged in the cut will cause it to bind. In comparison to modern high speed methods, the wire saw is slower than the coming of tax relief.

The most salient of its meagre virtues is cheapness. It does not cost any more to run than it takes to burn a 100 watt bulb, and the makings are kicking around every garage in Christendom.

Portability is another selling point. That big rock lying abaft the petunia bed can be sawed right where it lies. Dig a temporary hole so the crank can go around and you are in business.

It will be noticed in the illustration that all drives are in tension. The crank pulls the saw in one direction; the counter weight pulls it back. The use of flexible thongs instead of rigid connecting arms will prevent the gizmo from tearing itself apart should the wire stick in the cut.

To build a wire saw like the one illustrated will not be handy for every-

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one because the same combinations of this and that do not lurk in every garage. How the reader will convert rotary motion into reciprocating motion, and reduce the crank speed to about sixty revolutions a minute, is his problem. All we do here is to toss an idea into the hopper.

In that connection. What could be done with an old beat up bicycle? There is a drive and a crank. You take it from there.

The one big unsolved problem is to automatically feed grit and water in proper amounts to the saw so that *The Thing* will require scant attention. We will not dwell upon the frustrations arising out of this phase of the development.

Besides the methods already tried and abandoned, the writer can think of ten possible ways of solving the problem. But he cannot decide which one to try first, because he knows for sure that first nine will not work.

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◆ It Began With A Bloodstone
The Mineral Life of William B. Pitts

By LLOYD W. STAPLES and RUEL R. CROCKER
With supplemental remarks by LELANDE QUICK

The following excellent account of the life of William B. Pitts, "Dean of the Lapidaries," was presented in the "Pacific Discovery Magazine," September-October '53 issue, published by the California Academy of Sciences at San Francisco. Through their kind permission we are reprinting it for our readers and we have added some comments of our own.

Californians, in particular, and a great many people throughout the nation should be forever thankful that "Shady" Myrick happened to stop in at Gardner's Drug Store in San Bernardino one fine autumn day in 1906.

There was nothing questionable about Shady's character. He was a prospector from Death Valley, and he followed a rather sagacious practice of always working in the shade. He had no gold but he did have, this day, an unusually fine bloodstone. And bless his unsunburned hide, Shady sold the stone to a gentleman calling on the druggist, a salesman from back East.

The salesman was William B. Pitts. On that day he became a collector of gem minerals, and since his "retirement" (27 years ago) he has devoted himself to mineralogy. Pitts is Honorary Curator of Gem Minerals at the California Academy of Sciences—and the acknowledged dean of American lapidaries.

He is known especially for the magnificent collection of gem minerals he presented to the Academy some 18 years ago. The Pitts Collection, which fills an entire corridor of the Academy's North American Hall, is undoubtedly the largest ever to come from one man's hands. A national mineralogical magazine has called it "unquestionably the finest of its kind in the country." Another says it is probably the most representative gem mineral collection; it is alone in variety and quality. Its opals, jasper, and apple-green chrysoprase are unsurpassed.

The collection at the Academy is only part of Pitts' work, however. A list of museums, colleges and other organizations displaying his handiwork sounds like a a catalog of the mineral exhibits of the country: Santa Barbara Museum of Natural History; Geology Museum, Emory University; Smithsonian Institution; Chicago Natural History Museum; Cranbrook Institute of Science; Buffalo Society of Natural Sciences; Academy of Natural Sciences of Philadelphia; American Museum of Natural History; Tallahassee Geology Museum — there are many others.

Pitts has never sold a specimen and refuses to do so. In fact, all his work has been given away—he hasn't a single display case of his own.

William B. Pitts was born 85 years ago in southern Georgia, near Thomasville. His father had been a captain in the Confederate Army. His grandfather, an army surgeon in the War of 1812, served under Andrew Jackson in the Battle of New Orleans and in the Seminole War in Florida.

Billy Pitts grew up in Georgia. Taking a cue from his grandfather, he became a druggist's apprentice. In his first position young Pitts showed two characteristics that have marked all his efforts: single-mindedness, and the ability to do uncommonly well whatever his hands found to do. From 1895 to 1905 he was a prescription clerk with the Jacobs Pharmacy of Atlanta. Pitts conceived the idea of and wrote a newsletter for doctors. This letter not only kept doctors informed of new drugs and pharmaceutical products—a vital service—but it brought in an astounding amount of business.

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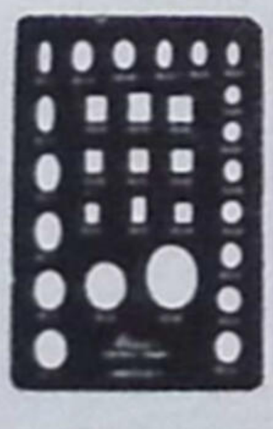
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The head of the Eisner-Mendelson Company of New York, a firm that sold mineral water and salts from the world-famous Carlsbad Springs in Germany, heard of the Pitts newsletter. Mr. Eisner was so impressed that he promptly offered the enterprising editor a position as sales representative, with the whole country for his territory. Thus it was that Pitts left Georgia, and came in due course to be in Gardner's Drug Store in San Bernardino, where he bought the piece of bloodstone. Pitts says he was so thrilled with the natural beauty of the rough stone that he then and there resolved to start collecting gem minerals.

For the next 20 years Pitts spent all his free time collecting — week ends, holidays, vacations. He went to work for Horlick's Malted Milk Company in 1916, after World War I wrecked the Carlsbad Springs enterprise. But for both firms Pitts spent about 20 months of each two years traveling his circuit, and in his spare time collected rocks. Porters and bellboys earned their tips when they carried his luggage.

Pitts developed a systematic approach to mineral hunting. First he visited state capitals and read all the literature he could find pertaining to each state's mineral deposits. Then he called on the major museums, becoming acquainted with geologists and mineralogists on their staffs. He was soon able to list as intimate friends such personalities as Dr. George Kunz of Tiffany & Company; Dr. O. C. Farrington, Field (now Chicago) Museum; Dr. H. Whitlock, American Museum of Natural History; Dr. S. Gordon, Philadelphia Academy, and Dr. George P. Merrill and Dr. W. F. Foshag, curators of geology, in turn, at the Smithsonian Institution.

From all of these and from many others Pitts got encouragement and helpful advice. As his own knowledge of minerals and deposits grew, he became their respected colleague and an expert in the field. But the actual business of gem collecting, he says remained a solo proposition. In the early 1900s few but scientists were interested in rocks.

Pitts went it alone, visiting remote reaches of the West and Southwest. He prospected often in Death Valley, then a virgin paradise of mineral deposits all but overlooked by the gold seekers. As

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Our gem cutting articles published in past issues are as new and fresh today as when they were printed IF—you are new to the hobby or if the information is new to you. Here is a list of some available back issues and the title of a leading article in each. Please order by number at 50c per issue or 5 for $2.00. This offer is limited to available issues.

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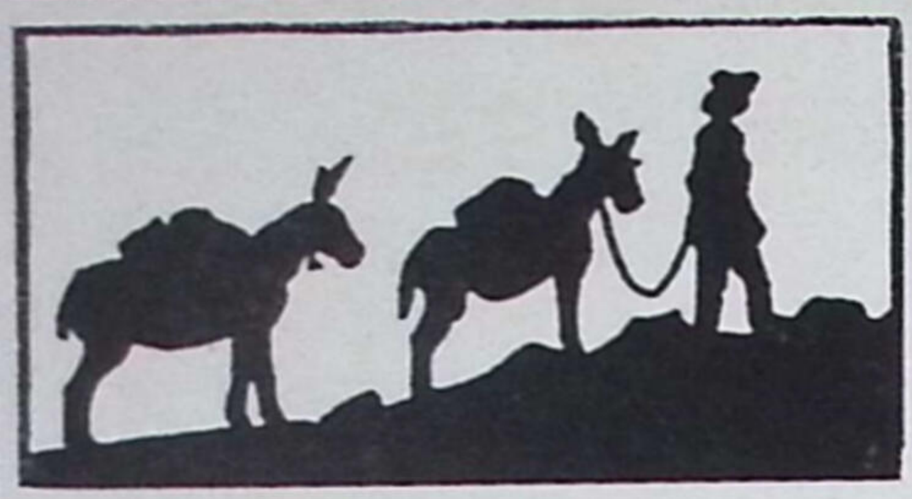
1—April '47 —How to Cut Cameos and Intaglios
5—April '48 —Simple Jewelry Mountings for Small Slabs
6—June '48 —Fine Carving with Nails
7—Aug. '48 —Home Made Faceting Laps
8—Oct. '48 —How to Cut Kunzite (3 methods)
9—Dec. '48 —How to Cut Tigereye
10—Feb. '49 —Composition for Better Cabochons
11—April '49 —How to Cut Titania
15—Dec. '49 —Complete Birthstone Issue (Special Issue)
16—Feb. '50 —How Old Gold Is Refined
18—June '50 —What Is a Good Polish?
19—Aug. '50 —Animal Carving in Silver
20—Oct. '50 —Adventures in Sawing
21—Dec. '50 —Gem Stone Engraving
24—June '51 —Jewelry Casting From Leaves & Flowers
25—Aug. '51 —Wet Sanding for Two Bucks
26—Oct. '51 —Iris Agate and Its Treatment
27—Dec. '51 —How to Make Jade & Agate Rings
28—Feb. '52 —How to Cut Abalone Shell
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he collected he stored his material in wholesale drug houses in Atlanta, Denver, Philadelphia, and Salt Lake City. When he retired in 1925 and moved permanently to Sunnyvale, California, he possessed more than a ton of high quality gem minerals. Here he had to build most of his grinding equipment himself. There were no commercial outfits then, no diamond saws, no grinding wheels as we know them today, no cerium oxide or felt buffs. His working days became longer and even more regular than formerly. From his shop came a steady flow of polished stones. Generously he gave them away, to institutions and individuals, faster than any ten other men ever collected gem minerals.

He continued to add to his collection, however, by direct purchase and by personal prospecting. Pitts and Dr. Foshag, who was especially interested in borax crystals, spent ten days in Death Valley in 1928, and collected minerals in the Boulder Dam area the following year. Pitts kept in contact with other collectors in this country and abroad (such as Norman Seward in Australia). He had standing agreements to buy truly outstanding semi-precious gems they acquired. For example, he purchased (from Seward) a collection of Australian opals that was exhibited at the World's Fair in San Francisco, 1939-40.

One of the most exciting strikes Pitts ever made was in 1926—the huge deposit of orbicular jasper at Morgan Hill, Santa Clara County, California. Someone had found a small fragment near Morgan Hill and had sent it to Pitts. Figuring that a deposit of the orbicular jasper must be nearby, he drove down to Llagas Creek. He found small bits of jasper in the creek, and as he traveled upstream he began to find large chunks. "I came to a large boulder, and I was pounding away when I happened to look up—and there was a whole confounded cliff of the stuff!"

With help, Pitts hauled out about five tons of choice material. Today every important museum in the United States has a display of cabochons and flats of the Morgan Hill orbicular jasper. It is called California poppy jasper by many, because of the red and yellow circles in it that look like flowers. Striking ex-

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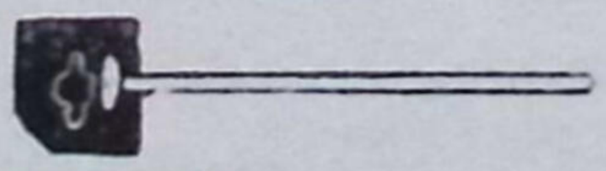
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amples of this beautiful stone are included in the Pitts Collection at the Academy.

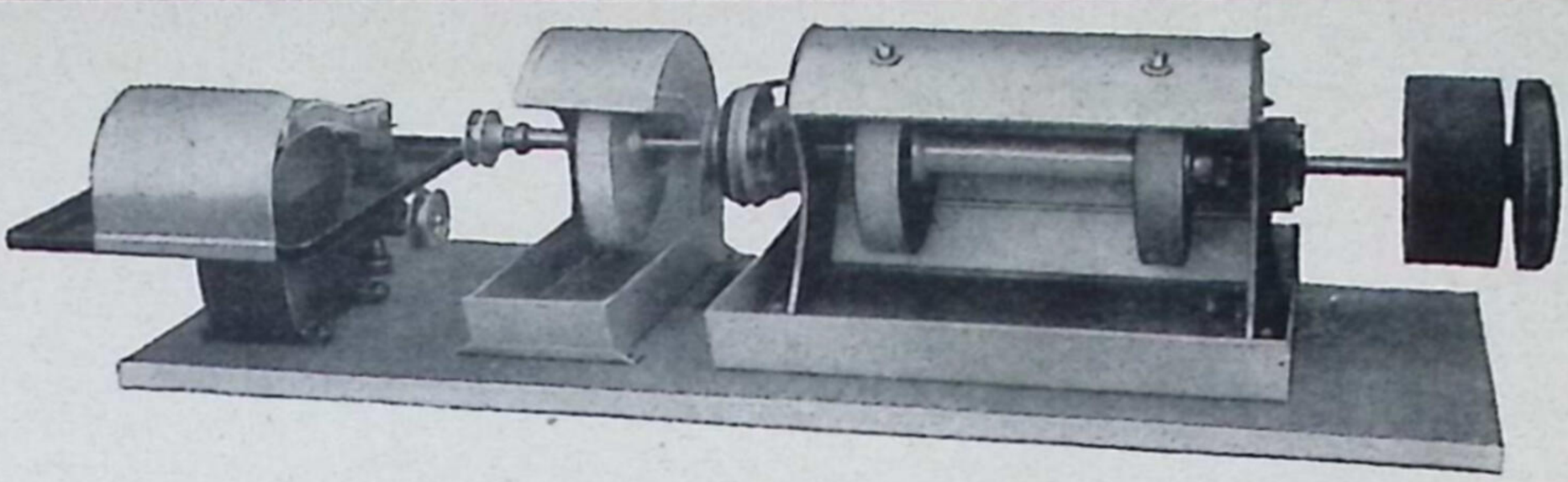
Pitts gave his collection to the Academy in 1933, and in 1935 he moved his shop there. Within this one collection several of Pitt's pioneering contributions to the lapidary art are revealed. He was one of the first, if not the very first, to cut moss agate and agatized wood into thin sections, showing their delicate beauty as transparencies. He also did much of the original development on thin mineral sections for projection slides.

An especially arresting exhibit consists of polished slabs of petrified wood. This display is perhaps surpassed only by a similar exhibit at the museum in Arizona's Petrified Forest National Monument—one that was also prepared by William B. Pitts. He has also turned a great deal of his creative genius to display methods. In the Academy collection the stone is the thing. Background materials are subdued, the better to point up the natural beauty of myriad gems and minerals.

His greatest achievement, however, has been described by one of his close friends. When Lelande Quick began publication of the *Lapidary Journal,* he dedicated the magazine to Pitts. In a lead editorial he said, "His contribution to the lapidary art is great in many directions but principally in the happiness he has brought to many thousands in making them realize that there *are* 'sermons in stones.' "

It is gratifying to note that the public is continually expressing its appreciation of William B. Pitts. He has been named a Patron of the California Academy of Sciences, and he has been made honorary life member of at least ten mineral societies in various parts of the country. He could cover his office walls with citations and certificates of merit from organizations displaying his specimens. Recently a day was dedicated to him at the twelfth annual convention of the California Federation of Mineralogical Societies. The Federation placed a bronze plaque to him at the Academy.

William Pitts has greatly appreciated these many honors, but he has always accepted them humbly. He feels he has done no more than bring out in his specimens the beauty God placed there. Some of his citations contain well-de-

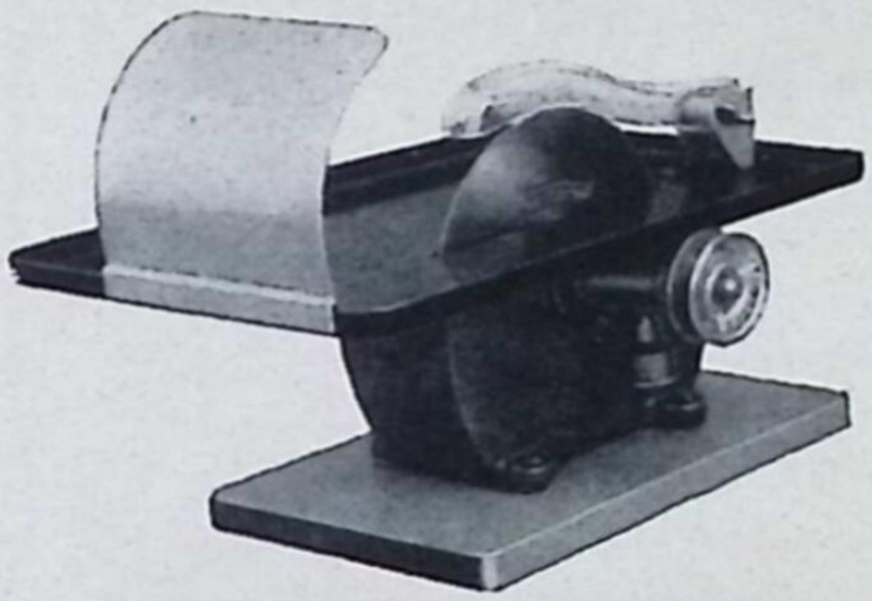


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served praise, but nothing better could be said of William B. Pitts than that he exemplifies in his own fine character the same genuineness, the same individuality exhibited by the stones that to him represent God's handiwork at its best.

* * *

Since the first issue of the *Lapidary Journal* appeared in April 1947 we have been gathering material for an additional article on our beloved friend William Burton Pitts who has just celebrated his 86th birthday in November, whose picture you see on our cover, and to whom the first issue of the *Lapidary Journal* was dedicated. However, even with the additional material in our files, we could not do a better job of reporting than the foregoing account of Lloyd Staples and Ruel Crocker. We are grateful to the publishers of *Pacific Discovery* for allowing us to reprint the article for the group of people who love him best and to whom he belongs—the gem cutting hobbyists of the United States.

Through these last six years, since our first account of Uncle Billy appeared, we have grown to know him far better and love him far more. He has made annual visits to see us and the result of each visit has been an increase in our knowledge of gem rocks and a greater appreciation of the word service. His next visit with us is scheduled during the next convention of the California Federation of Mineralogical Societies' which will take place just eleven miles down the road at Indio next March.

On September 8, 1952, KCBS, the Columbia Broadcasting Company's station in San Francisco, had a wonderful program about Mr. Pitts. It revealed new evidence of this man's dominantly unselfish attitude toward his fellow man. Mr. Pitts was fortunately able to retire in 1925 and he has never worked for pay since that time, never sold a rock or permitted anyone to compensate him in any way for the years and years of endeavor in working up his wonderful museum displays. When World War Two came along, because of the Navy's need for finely cut mirrors and pieces of glass, Mr. Pitts was asked to help out. He immediately accepted — and just as quickly refused to punch a time clock. "But, why?" asked the officer in

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charge of the shop the Navy set up at his museum in San Francisco. "Because I want to do it for free" answered Mr. Pitts. "If I'm too old to fight in this thing I'm not going to work toward winning it and accept any kind of compensation. The boys overseas aren't punching time clocks at eight in the morning and going home at four thirty."

"You mean you never accepted a cent during the war?" the reporter asked. "No, not a cent—unless you'd call this payment." And then he rolled up his sleeve and proudly displayed a Navy issue watch of World War Two vintage which still had a dull green G.I. band. "The officer in charge wanted to give me something, so I settled for the watch." Mr. Pitts then further summed up his attitude by saying, "I guess I am a little crazy, but I made up my mind to do things this way, and at this stage I'm not going to change. Some people love money . . . I love people and the thrill they get out of seeing my work."

In a subsequent letter to us Uncle Billy characteristically said "it kind of keeps the real records straight, kind of shows the real purpose of my endeavor, although, like many reporters, he has drawn the Long Bow."

Last March when Uncle Bill came through Palm Desert, to attend the Mid-Winter Desert Rockhounds Fair, the two of us fixed up the Pitts collection in the *Lapidary Journal* offices. This collection is displayed to the public every day in the week from November through May, and Monday through Friday the rest of the year. We are proud of it and happy indeed that the Dean made it for us for it contains some of the things that he held on to longest because they were things that meant the most to him.

If any one could put a finger on the one moment in history when the amateur gemcutting movement in America really started we believe it was the day in 1920 when Mr. Pitts paid one of his yearly visits to the Smithsonian Institution in Washington, D. C. On his way out of the Institution he picked up a brochure, about the page size of this *Journal*. It contained two colored plates of gemstones. In his travels during the next year or so Mr. Pitts personally gathered nearly every gemstone that was pictured. Supplementing his collecting

(*Concluded on page* 468)



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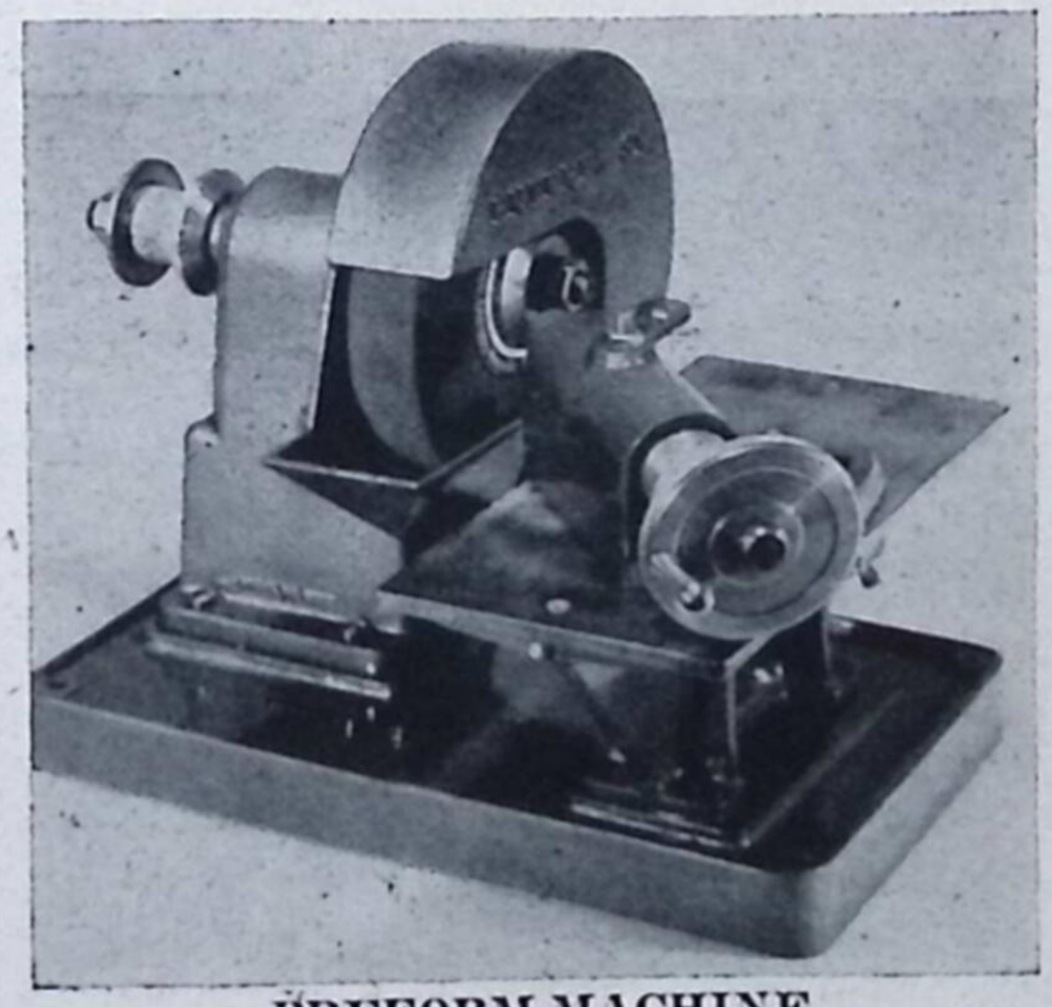
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By LELANDE QUICK

As this appears the Christmas season will be coming upon us and we would like to use these columns to climb upon our soap box for a cause. The cause concerns our favorite hobby of gem-cutting, the Christmas spirit, the generosity of American hearts and international goodwill and ties them all into a neat package.

We think that most readers are acquainted with the wonderful work that is done all over the world by the Society of Friends. That is the official name of the settlers of our native state—the Quakers. Another Pennsylvania religious sect, not so well known, is the Brethren. The Brethren are the world's best farmers. While the wonderful unselfish and practical work of the Quakers is often detailed in the press we have never read of the similar work of the Brethren. Information comes to us that the Brethren are sending whole boatloads of heifers to Germany and other countries to replace the valuable dairy herds that were destroyed during the war or used as needed food. Trained young men accompany the herds on the cattle boats and stay with them at their destination for a full year to help the farmers who receive them free to start their new herds.

The Brethren have established a training school at New Windsor, Maryland, called the Brethren Social Service Center. Here come the young folks as volunteers for two year's service in foreign fields. These young people are not missionaries in the same sense as the missionaries who go into the four corners of the earth to "save" the heathen. These young people are just trying to help other people in the true Christian spirit to rehabilitate themselves. In doing this they are building good will with foreign peoples and mending the holes in the fences made by the unfortunate and vulgar display of our wealth by other Americans at almost every point on the globe.

Now it happens that their work came to the attention of James Anderson of Baltimore, founder of the Gem Cutters Guild of Baltimore. An old friend of ours, and the originator of silverware with agate handles, Mr. Anderson is well known to all who have followed this page through the years and to the thousands who have seen his mastercrafted silverwork at various shows.

Last year Mr. Anderson taught 50 young workers at the Brethren Social Center to do gem cutting. These 50 youngsters are going to take the idea all over the world. Why? The Brethren are smart enough to know that among the people they visit, the greatest need is not food and clothing but something that will give them a new interest in life. Gemcutting is not the answer but it is recognized as one of the answers.

Anything that will encourage people to practice an art form and do something with their hands, that will encourage them to study the world about them and even explore it with greater attention, is indeed an answer to the problem of starvation of another kind. The gem cutting hobby is a perfect answer to such a requirement. Do you think it will do any harm anywhere in the world for anyone to learn, with surprise perhaps, that Americans are not grubbing for money all their waking hours, that they have more fun than the people of any other nation on earth, that an estimated three million of them have their fun playing with rocks?

The leader of the group at New Windsor, Maryland, is Rachel Garner, a graduate of Cornell University and a trained social worker. When Miss Garner went to Germany recently she wished to take an almost new automobile with her for her visitations in the refugee camps in Western Germany. She was not allowed to take it however but was made to take an old battered car instead. How wise! If we were only smart enough to tone down our lavish display of wealth in other directions we could avoid a lot of the just criticism by our foreign friends.

Now here is the gimmick. The Gem Cutters Guild of Baltimore is supplying Rachel Garner with a portable gem cutting outfit that she can take from camp to camp and the interest is so wide that she could use several more outfits. We applaud the gesture of the Gem Cutters Guild of Baltimore and we toss the idea



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into the Board meetings of all of the 600 gem and mineral clubs all over America. Across our desk in the month of December will come the bulletins from many of these clubs. The bulletins, almost without exception, will say "a formal program was dispensed with because of our annual Christmas party with turkey and all the fixin's etc." Now that's all very good. It's very, very good indeed and we don't want any reader to get any idea that we are opposed to the good old American custom of breaking bread together at Christmas time and getting our feet under a common table that bears the "groaning board" in greater proportion than anywhere else on earth. But everyone knows that nothing helps in having a good time so much as the knowledge that you have also helped some others have a good time too; usually people who would not have a good time at all if someone else did not provide it.

It has never been intended that the gem and mineral clubs of America had any need to help anyone. They were never organized for that purpose. The only "cause" they support is the promotion of knowledge about their own interests among their own members. Now we know, from the information we receive in club bulletins, that many of these clubs have lots of money in their treasuries that isn't working. We know of one club that actually has more than $5,000 in a savings account drawing interest. Wouldn't it be a good idea, friends, to cast some bread upon the waters at Christmas time by either giving Rachel Garner some cash contribution or even donating some portable gem cutting outfits for use abroad? These outfits will be sent by our Government freight free to any part of the world.

New groups of 75 students enter the school in Maryland every three months and their good work is pyramiding rapidly in many countries of the world. There will be a constant demand for a long time to come for help with gem cutting equipment and who knows just how big the oaks will grow from the little acorns planted by the gem and mineral clubs of America—if they will only do it.

If the idea meets with favor anywhere we will be happy to spearhead the distribution of donations into the proper channels. Take this editorial to your next Board meeting and see if you can get your club to enter into this practical and unselfish Christmas program.

To indicate our own sincerity in plumping for the idea we will do this—we will make a cash contribution of $10.00 each toward the purchase of any gem cutting outfit donated to the Brethren by any Club regardless of the price of the outfit but it must be a complete outfit of some kind. We necessarily limit this offer to the first 15 clubs to write us that they will buy an outfit. In that way we feel that we will be donating a complete outfit if as many as 15 clubs respond to the idea. If the donation of an outfit is too rich for the blood of some clubs then a cash contribution will be welcome indeed to be used for supplies to go along with the outfits that are donated. Under no circumstances will we recommend any particular equipment. Each club is to buy what they will and we will advise you where to have it shipped. All donations will be asknowledged in these columns and we hope that the list will be long.

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- lists most of the museums with gem and mineral collections—what hours they are open and price of admission, if any.
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- gives author, publisher, address and price of every gem, mineral and jewelry book now for sale.
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• Rings Made From Washers ⇩

BY WILLY PETERSEN-FAGERSTAM

On the opposite page are illustrations of men's rings made from silver washers.

Figure 1—For number 1 use a washer about 25 millimeters in diameter with the inside hole about 17 millimeters in diameter. Set off center and leave about two millimeters in back. A washer of this size will finish about size 6½ and can be stretched to size 9. In number 2 the outside diameter of the washer should be about 1 millimeter larger than in number 1. Use 10 gauge silverplate.

Figure 2—Use two washers of 8 gauge silverplate for this ring. Washers should be tapered in the back as shown for number 2A in Figure 5.

Figure 3—Use two washers the size of those used in Figure 1 except that the gauge of the silverplate may be as thin as 14 although a heavier gauge may be used. The bezel is made of 22 gauge fine silver, soldered to a 20 gauge sterling silver back.

Figure 4—Two washers of either 8 or 12 gauge sterling silverplate are used for this signet ring. Signet plate (number 2) should be at least 16 gauge.

Figure 5—Proceed as in Figure 1. The bezel is made of 20 gauge fine silver. This ring calls for heavy sawing so use No. 2 saw blades. All the ringshanks should be filed to a taper in the back. They are soldered together by laying the solder inside the ring so that it will not show. Be sure the work and solder are clean.

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Complete directions are given for stone setting and for making a variety of silver wire chain bracelets, pins and necklaces. Full information on etching and enameling is also included.

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Those who are jewelers or who are planning to become jewelers will find a wealth of information in this 516 page book. Contents includes sections on: kinks and tricks of the trade, oddities, elementary metals, alloys, electroplating, metallizing, shop practice and tools, lacquers, plastics, enamels, polishing and buffing, burnishing, buying old metals, refining, melting and casting, gems and minerals, proprietary formulas and technical tables.

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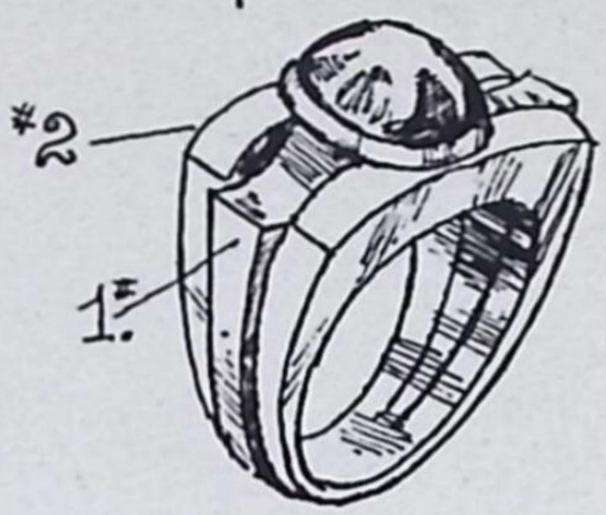
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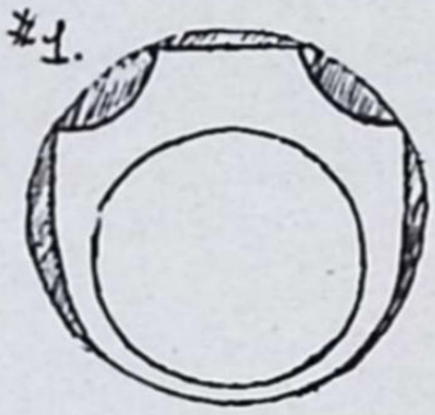
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Fig. 1.





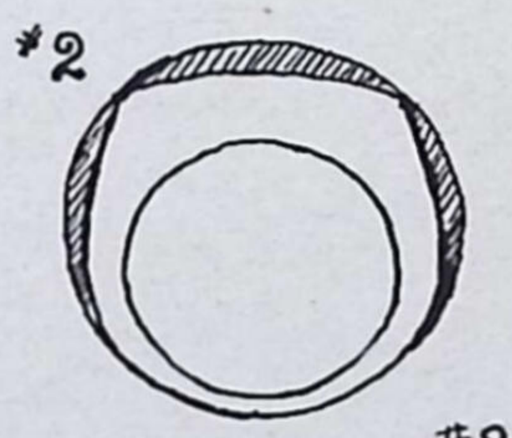
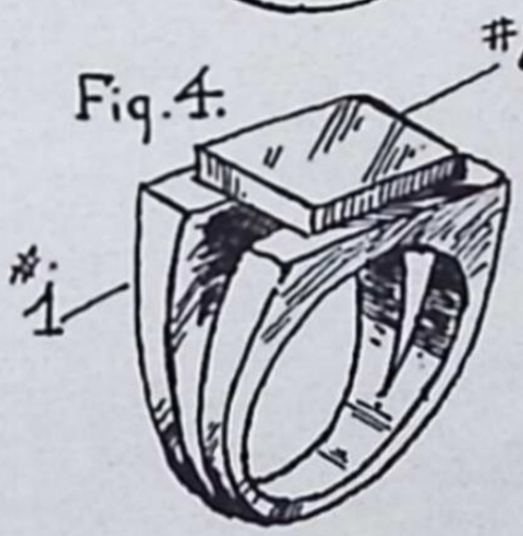


Fig. 4.



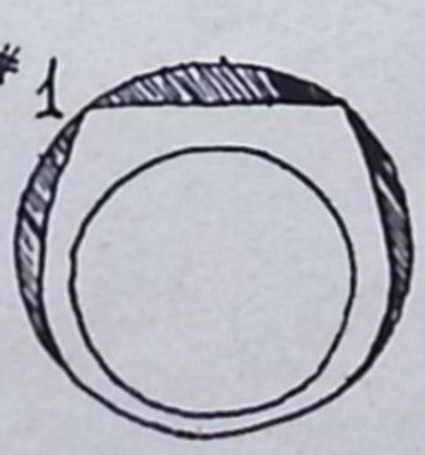
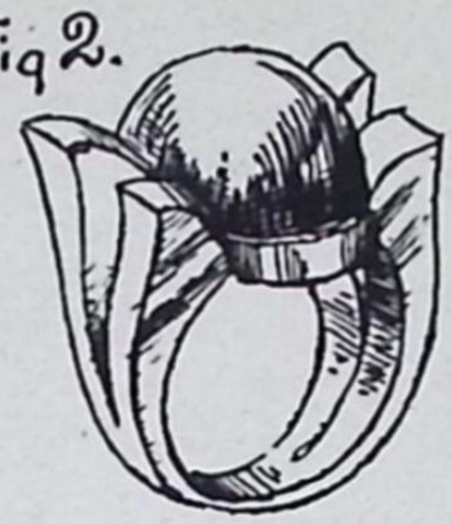


Fig 2.



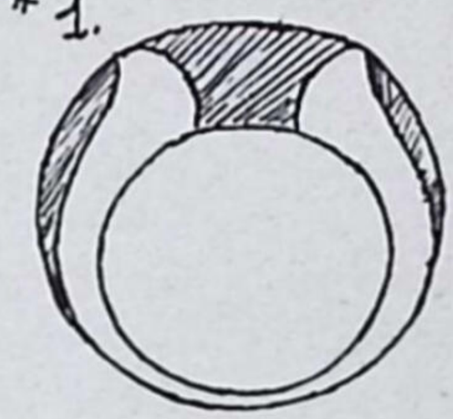
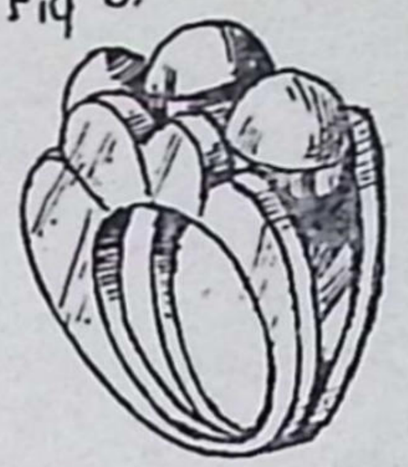


Fig 3.



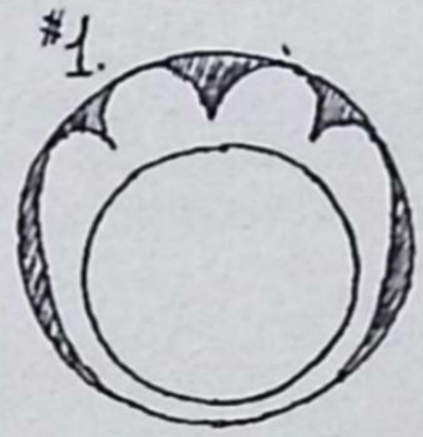
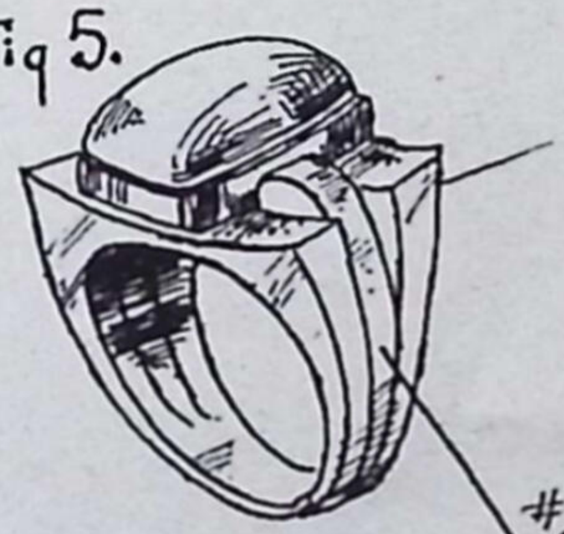
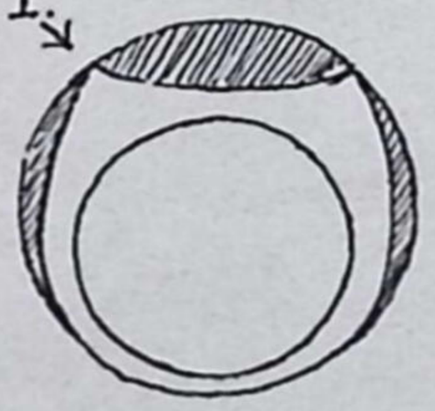
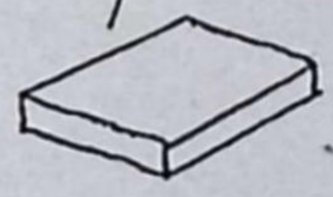
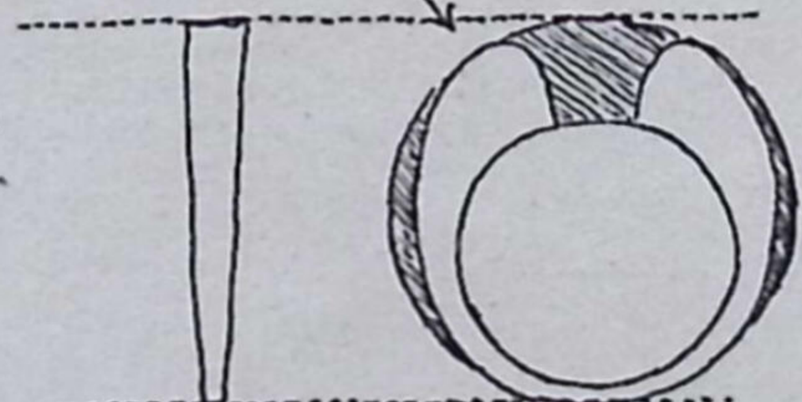


Fig 5.









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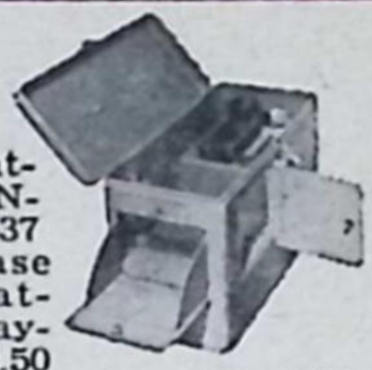
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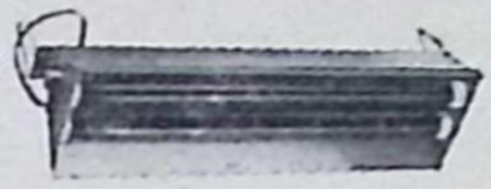
MODEL M-12



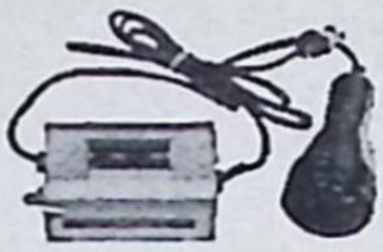
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◆ History of Mineral Collecting and Club Organizations

By CHARLES O. FERNQUIST
North 112 Division Street, Spokane, Washington

Mineral collecting dates back to very early prehistoric time. Early men found rocks and minerals of special types, the most suitable materials from which to make articles for home use in preparation of food and tools of various kinds. They made sinkers for fishing, spear and arrow heads for hunting and self protection from animals and enemies.

Here along the Columbia River we have one of the best regions in the United States for the collecting of such old Indian artifacts. The Indians of our own Northwest were still in the stone age when the white race arrived here.

In the old world man became familiar with the use of metals. The first metal to be used was copper, with an alloy of tin to form bronze. This took the place of the earlier stone implements and was in use for some length of time. After the bronze age, iron was the next metal to come into use for weapons and other uses. This proved to be the most serviceable metal from that time until the present day. A large number of metals and minerals have become necessary for our way of life, since then, and we could not get along without them. Without minerals we would have no world or life upon it. Weathered and ground up minerals form soil. Upon this soil trees, shrubs and vegetables grow and procure their food for their growth and existence. Animal life is also dependent on minerals for their existence. The composition of all vegetable and animal life is composed of the same elements as minerals. What would there be in the entire universe if there were no minerals? Nothing.

Now, we who are interested in the study and collection of objects of geology, rocks, minerals, gemstones, fossils and other objects have one of the most interesting and fastest growing hobbies. We are now close to second place of all the hobbies. Let us keep up with this great interest.

And now for the main subject of this article—mineral collecting, gem cutting, organization of mineral and gem clubs and their federations. I have been interested in minerals since 1888. I am now 72 years old and have seen both active and slack periods in mineral collecting over a period of 65 years of personal collecting. In the 1880s and early 1890s there was considerable interest in mineral collecting. At that time our mineral resources were being developed and many very fine specimens were to be found in the newly developed mines. Many of these were carried home by the miners and found their way to the numerous saloons of that period. Large personal collections and collections of schools, colleges, universities and museums have acquired some of those fine collections by purchase, gifts and inheritance.

In those early days, several mineral clubs were organized. The oldest of these, *The New York Mineral Club,* was organized in 1886. The *Mineralogical Society of Pennsylvania*, at Philadelphia, was organized shortly after. The *Newark Mineralogical Society* of Newark, N. J. was organized in 1915. It is interesting to note that those three early clubs are still in existence. In those earlier days there was one publication—*The Mineral Collector*. After this magazine ceased publication interest in mineral collecting took a drop.

In 1916 *The American Mineralogist* appeared. This magazine is published by the *Mineralogical Society of America;* a highly scientific organization. In 1926 *Rocks and Minerals* came out. This magazine catered to the amateur collector and was probably the cause of the rebirth of mineral collecting. Since then, other magazines have been published. *The Mineralogist* (1932); *Earth Science Digest* (1946); *Gems and Minerals; Lapidary Journal* (1947). *Desert Mag-*

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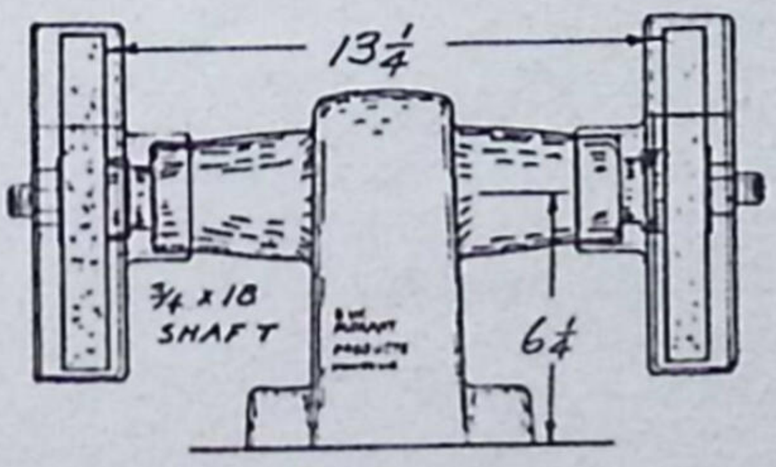
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azine carries articles on mineral and gem collecting.

By 1931 interest in mineral collecting had reached the West Coast. That year *The Mineralogical Society of Southern California* was organized at Pasadena. This was followed by numerous other clubs. By 1935 the many clubs in California organized the first federation, *The California Federation of Mineralogical Societies.*

On January 14, 1933, *The Oregon Agate and Mineral Society* was organized in Portland, Ore. This was the start of our mineral interest in our Pacific Northwest states of Oregon, Washington, Idaho and Montana. On February 5, 1938 the clubs organized the *Northwest Federation of Mineralogical Societies* at Olympia, Wash. Since the organization of *The Oregon Agate and Mineral Society* and the *Northwest Federation of Mineralogical Societies* the increase of new clubs and membership has been very rapid. The last directory of the Northwest Federation lists 63 Clubs, with a combined membership of 3,234. There are now 75 clubs with a membership of about 5,000. Grouped into states, they are:

Oregon—23 Clubs, 1,243 members.

Washington—28 Clubs, 1,605 members.

Idaho—8 Clubs, 288 members.

Montana—4 Clubs, 101 members.

Since the time this list was tabulated, several more clubs and many more members have been added to the list.

The writer of this article, while Mineral Curator of the Eastern Washington Historical Society Museum, organized *The Columbian Geological Society* on June 17, 1936. This is now the oldest club in the state of Washington and has one of the largest memberships. Regular meetings are held the first Thursday of each month at the Eastern Washington Historical Society Museum, otherwise known as the Grace Campbell Museum, at 2316 West First Avenue in Spokane, Wash. Numerous field trips are taken during the year and especially during the summer months. It celebrated its 17th anniversary at its June meeting, this year.

Other mineral clubs in Washington are listed in alphabetical order as follows: *Blewett Rock Club*, Dryden; *Cascade Natural Science Club*, Carson; *Columbian Geological Society*, Spokane;

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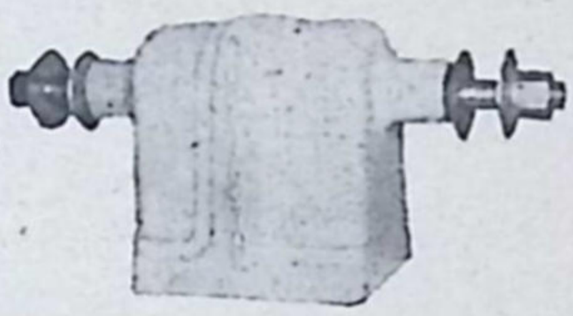


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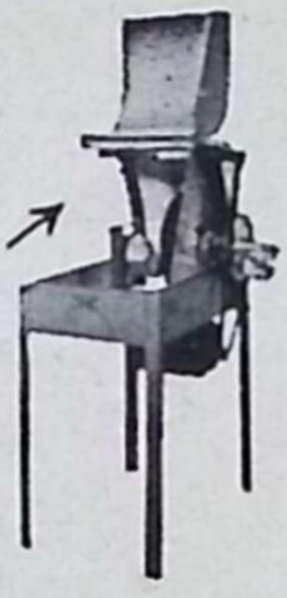
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The writer was a delegate to the Olympia meeting when the *Northwest Federation of Mineralogical Societies* was formed. This is now the second largest regional society in the United States. At the time of organization there were only seven clubs that took part. Now there are 75. Conventions held by the Northwest Federation were: Portland, Ore., Oct. 15, 16, 1938; Seattle, Wash., Oct. 14, 15, 1939; Spokane, Wash, Oct. 12, 13, 1940. After these meetings the dates of conventions were changed to the Labor Day weekend. Conventions since then were Portland, Oregon, 1941; (no conventions during the war); Boise, Idaho, 1946; Seattle, Wash., 1947; Bozeman, Mont., 1948; Eugene Ore., 1949; Spokane, Wash, 1950; Tacoma, Wash., 1951; Caldwell, Idaho, August, 1952 and Portland, Ore., 1953, at which the paid attendance was reported in excess of 10,000 persons.

On the 4th of July weekend, in 1949, the *All Rock Hounds Pow Wow Club* was formed at a collecting trip to Red Top Mountain. A large group from various localities was gathered there. This

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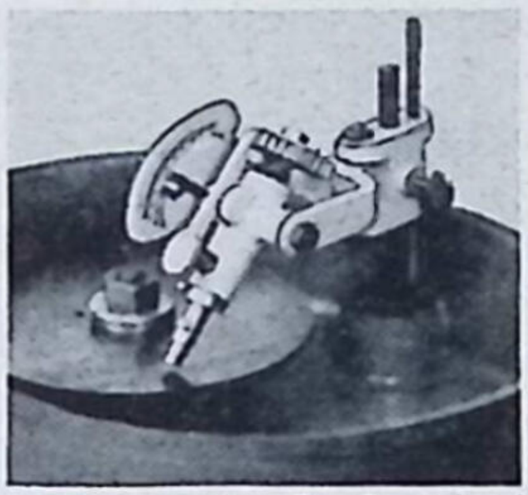




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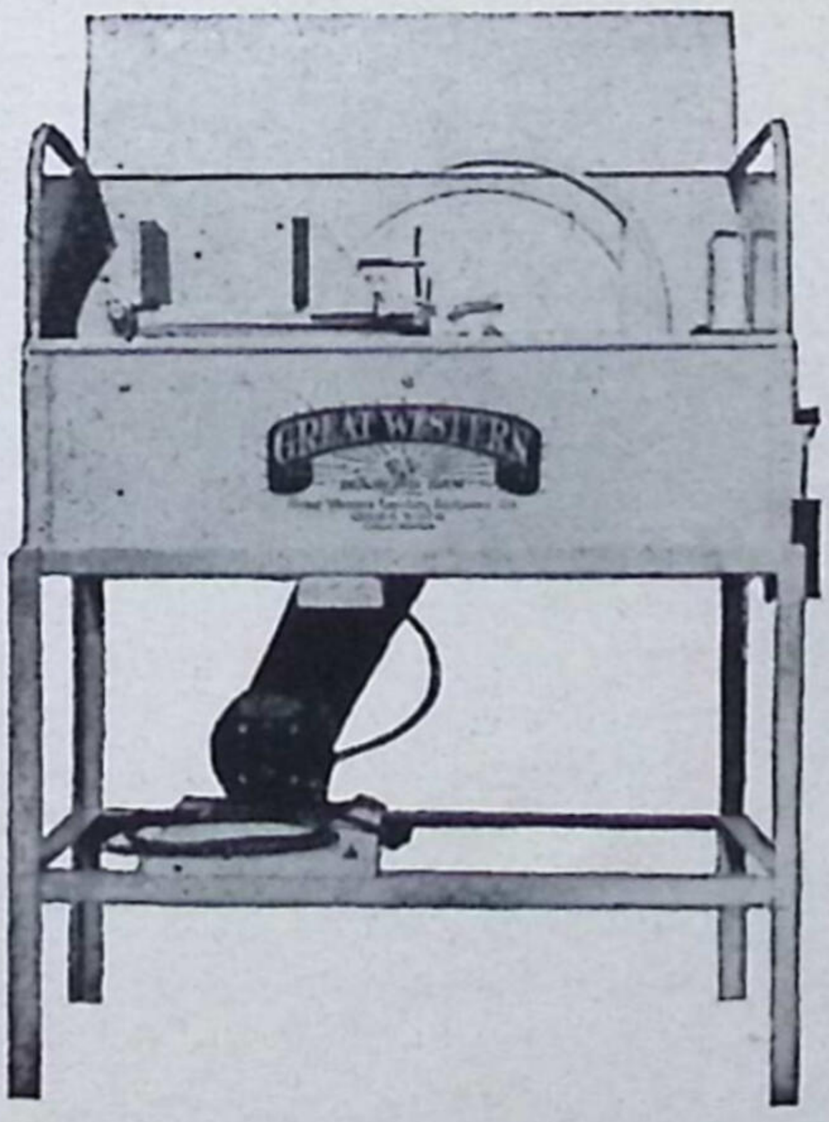
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organization was started by the Chas. H. Robinsons (Jr. and Sr.). Since this first meeting, annual 4th of July meetings have been held at Vantage, Wash. Collecting of Indian artifacts along the Columbia River are made during these meetings. Trips to Saddle Mountain have been made to collect petrified wood.

Other gatherings of the *Pow Wow Club* have been held at Rattlesnake Hills, near Sunnyside, Wash., to collect petrified wood. These meets occur on Memorial Day weekends. The Pow Wow in 1953 was held in Cowlitz County collecting agate. Fall Pow Wow trips are also made. In 1952 the group went to Roosevelt, Wash., to collect petrified wood. The Pow Wow 4th of July meetings attract large crowds from the entire Northwest, as well as visitors from the East. There are members in a number of other states as well.

In Washington there are numerous collecting areas for agate, jasper and petrified wood. Mineral specimens, both metallic and non metallic, are to be found in both eastern and western Washington. Some of these minerals are equal to the best found anywhere.

Starting into the area of the Washington Territory a great stampede of miners began in 1855. In that same year gold was discovered on the Columbia River, at the Hudson Bay Company's Fort Colville, also in the Pend Oreille River area. This movement brought many men from the Willamette River of Oregon Territory and from Puget Sound. Gold could be found almost anywhere, from Spokane to the Pend Oreille; but the deposits were small. Some men made from $3.00 to $6.00 a day by rocker and pan method.

The factor of Fort Colville told the miners that the possibilities were better for finding gold farther north. This started a great rush up to the Thompson and Fraser Rivers, in British Columbia in 1858 and considerable gold was found in that area. In 1860 gold was discovered at Pierce, Idaho. At that time Pierce was in Washington Territory, which extended east to the Rocky Mountains in Montana and included the entire state of Idaho to the Utah line. This gold discovery brought a large influx of gold miners, laborers, business men, saloon keepers and gamblers. New gold discoveries were found at numerous

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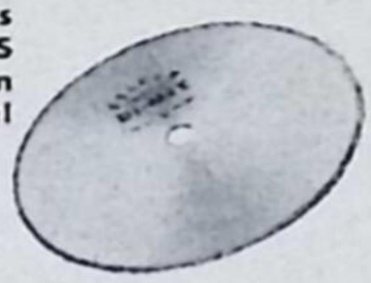


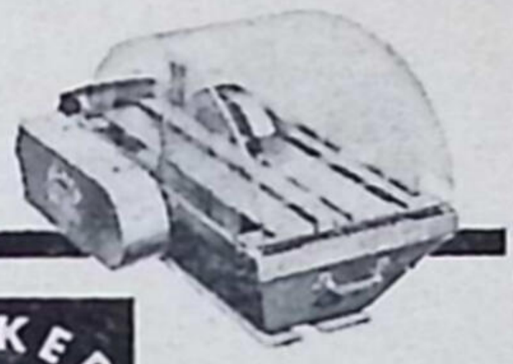
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localities in Washington Territory.

From Pierce City, prospectors went south along the South Fork of the Clearwater River. Gold was discovered at Elk City in 1861. This started Lewiston, Idaho. From Elk City miners made their way across the mountains toward the Salmon River. Here the town of Florence grew up near very rich placer diggings. From Florence miners started across the Salmon River to the south side and here discovered placer gold at Warrens. At these places it is estimated that 30,000 persons were working on mining claims, in business and other pursuits. Production from these districts has been estimated at about $50,000,000.

From Auburn, Ore., another group of miners went east in 1862. Gold was discovered on Grimes Creek in the Boise Basin. Idaho City grew to a fair sized town. Boise and other towns were established later. Movement also started south and placer gold was discovered on Jordan Creek. Soon afterward quartz mining for gold and silver began at Silver City in 1863.

From southern Idaho the mining advance went on to discoveries of placer gold at Bannock, Virginia City and Helena, across on the eastern side of the Rocky Mountains in what is now Montana.

The earliest discovery of gold in Washington Territory was made in 1852, on Gold Creek, a tributary of the Clarks Fork River, in Montana, then a part of Washington Territory. Also there were placer gold discoveries on Peshastin and Nigger Creeks, in the Blewett area, also at Swauk Creek. These and several others were in the area of the present state of Washington. The first important lode mining was in 1884; the Old Dominion mine, near Colville, Wash.

These numerous early day mining ventures brought in a large influx of people to seek their fortunes in the area. New towns sprang up in the different places. Walla Walla, Lewiston, Boise, as well as Portland, San Francisco and Puget Sound cities received large benefit. Of the many immigrants, many went into stock ranching, farming and other pursuits—and so a State was born.

(Editor's Note: The reader will find a very interesting account of the gem bearing areas of the State of Washington by the same author in the *Rockhound Buyers Guide,* under the title *Where to Go in the State of Washington.* This book is procurable from most dealers for $1.25, or direct from *The Lapidary Journal,* Palm Desert, Calif., for $1.35 postpaid.)

(This article originally was part of a souvenir program of the All Rockhound Pow-Wow and convention held at Vantage, Wash., on July 3, 4, and 5, 1953. This was the 5th annual Pow-Wow and the Washington Territory Centennial Meeting. The account has been revised, corrected and brought up to date.)

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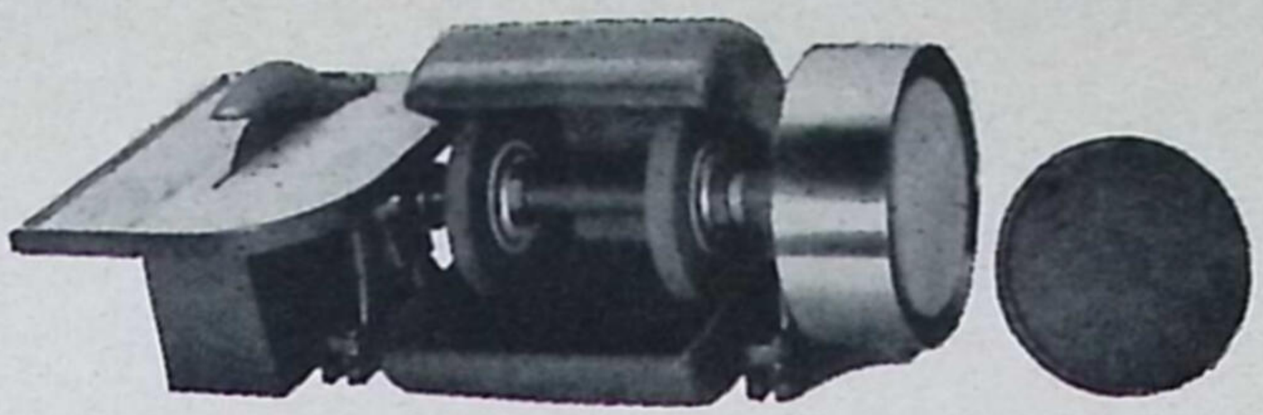
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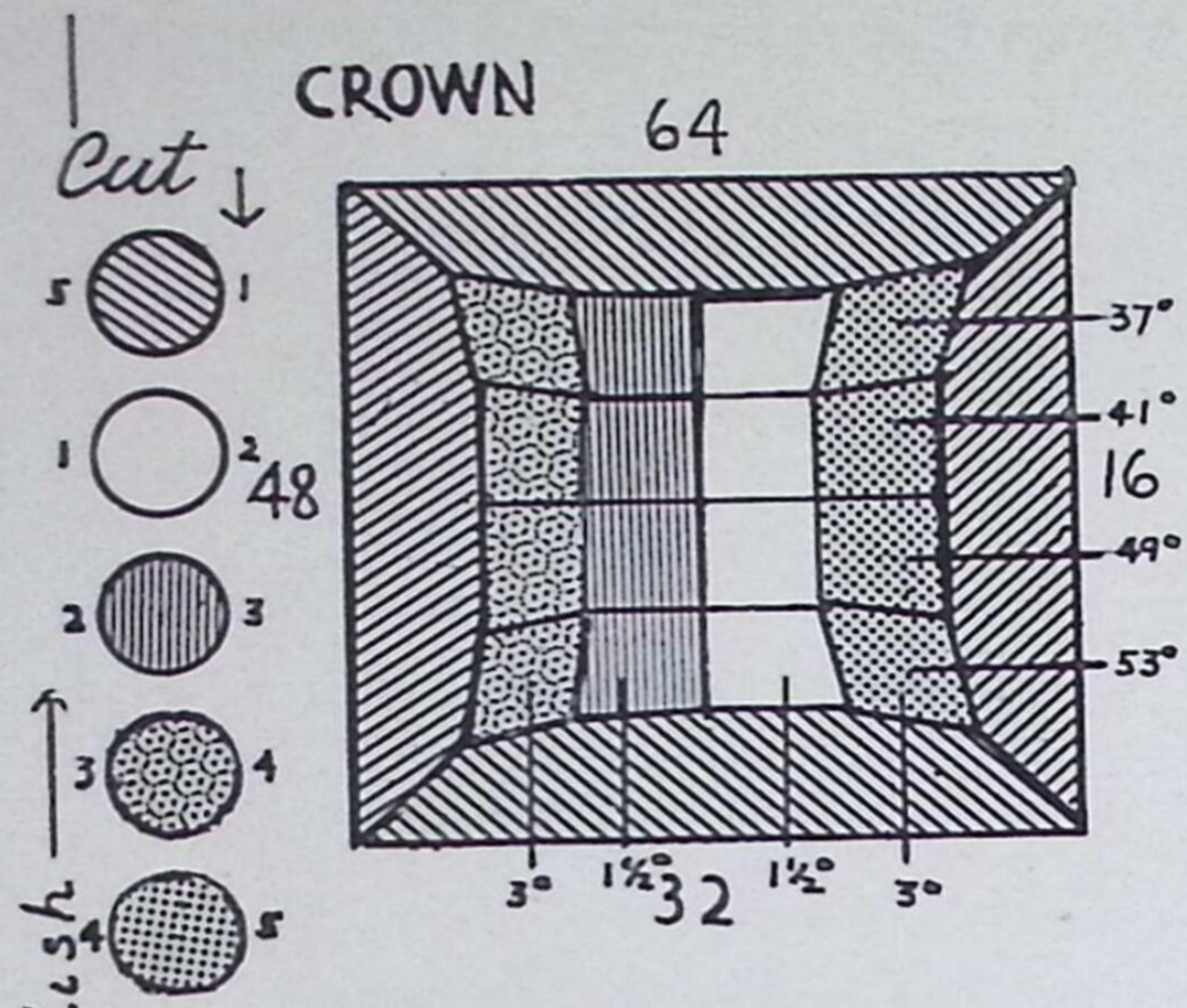
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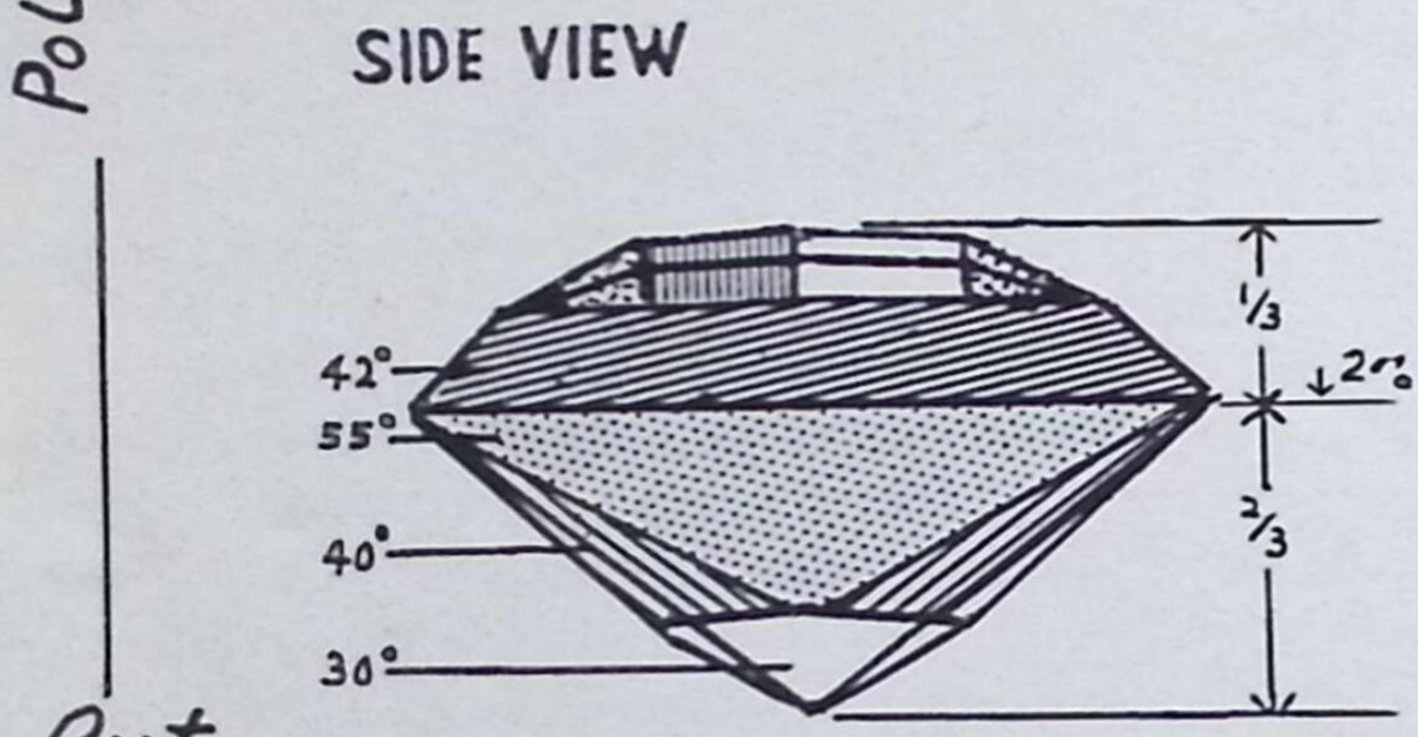
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Grind 5th: Four facets by compounding 3° to the right, using same angles as above.

ORDER OF POLISHING

See polishing order on left, using same angles and index as were used in cutting.

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Grind 2nd: Eight facets at 40° indexing 4-60, 52-44, 12-20, 28-36.

Grind 3rd: Four facets at 30° indexing 64-16-32-48.

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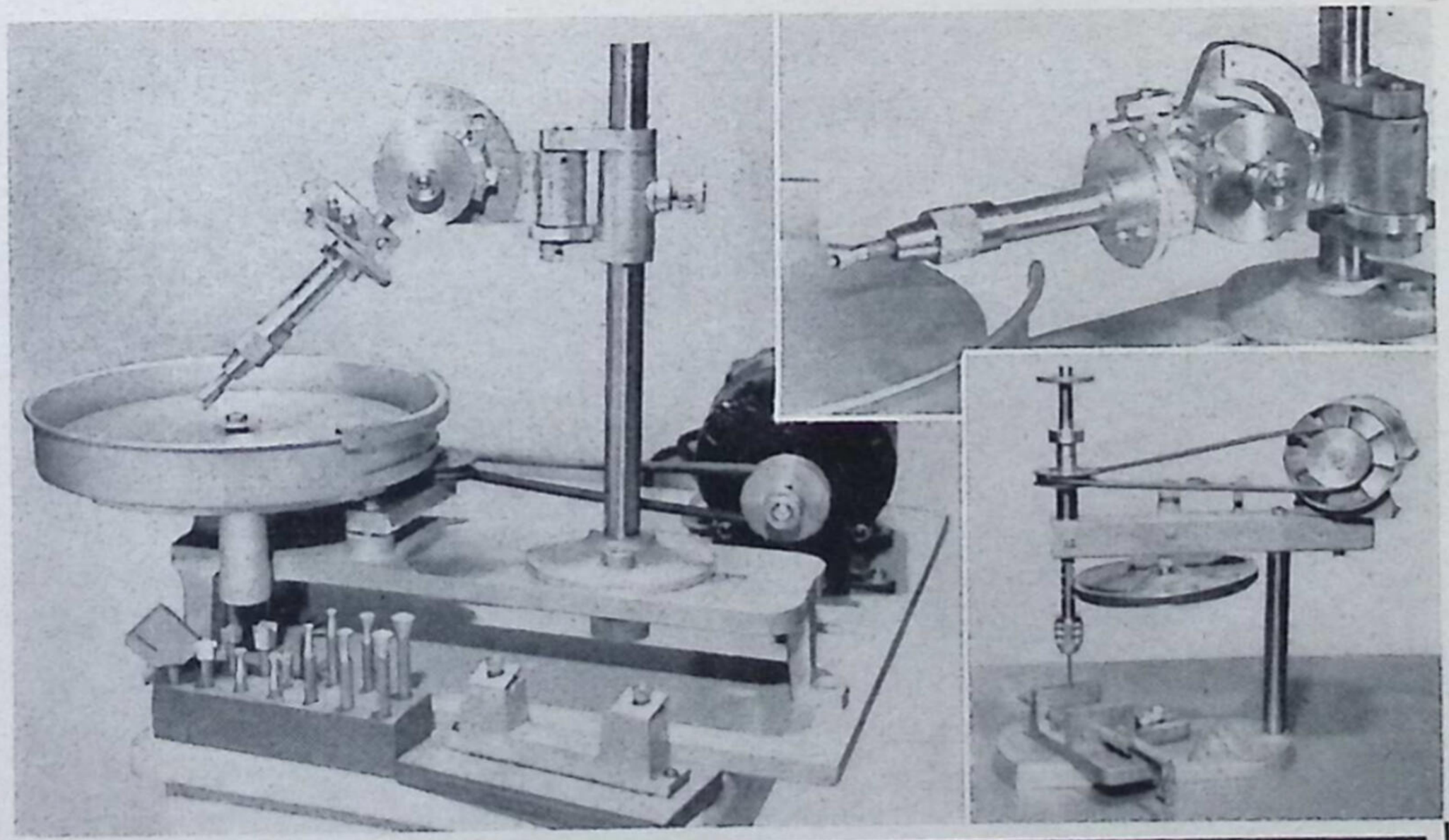
We are manufacturers of the now well known QUAD Line of dependable lapidary equipment and we also have on sale in our store the most diversified stock of general lapidary and jewelers' supplies, findings, books and the most complete line of **Myco** and **Theodore** mountings in Superior California (Probably called Northern California by you, Bub). We do want to increase our mail order business and we do have an equipment catalog which has been free but for which we would like to get 25c, to be refunded to the customer with his first order of $1.00 or more. We have for **free** distribution a three to four page mimeographed price list of lapidary and jewelers' supplies etc.

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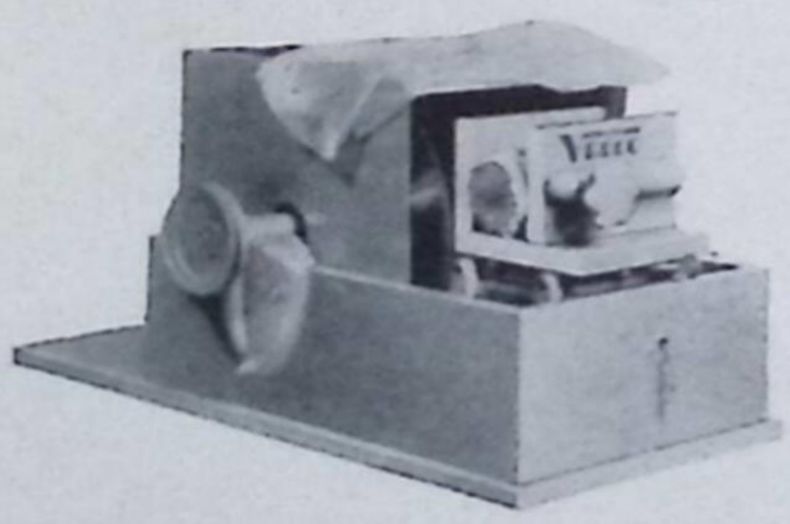
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Yellow tigereye	$ .30
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FLUORESCENT MATERIAL	**per lb.**
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Calcite, (Worland, Wyoming)	1.50
Semi-Opal (Virgin Valley, Nevada)	2.00

Mail orders are welcomed and will be promptly attended to. We can furnish anything if given time. What we haven't in stock, we can get.

JIM JENNE'

◆ Gems From The Mail Bag

I take this opportunity to congratulate you and the *Lapidary Journal* on having a proof reader. It is a rare thing indeed to find any sort of typographical error in the *Journal*. Some of the trade magazines are poorly put together, spotted with typographical errors, and poorly edited. I can't direct any of these gripes at the *Lapidary Journal*. R. I. Martin, Saratoga, Wyo.

✡ ✡ ✡

I marvel at the perfection of the work in connection with your *Lapidary Journal* — never a misspelled word or typographical error. In this day and age of speed someone deserves a huge measure of praise for doing an accurate job along with an artistic touch. Rudolph Fahl, Colorado Springs, Colo.

✡ ✡ ✡

Like many of your other readers I am a cover-to-cover reader, including all the ads. Your magazine is by far the most interesting one in the lapidary field. Sam C. Johnson, Houston, Texas.

✡ ✡ ✡

Thank you so much for the June sample copy. First of its kind I ever saw. I never knew amber was mined. As a child, on the southwest coast of Sweden, I often found cream colored "stones." We rubbed them fast on a woolen dress or stockings. If they lifted a piece of paper the size of a child's thumbnail they were amber and were taken home to be formed into hearts and hung on gold chains. They were then sent over to relatives in the U.S.A. by the next person who was leaving our village for America. We knew that America had gold but amber was believed too cheap to be had in the U.S.A. I wish I had the courage to tell Mr. Cox what enjoyment I had from his amber articles. Mrs. S. Johnson, Peotone, Ill. (Ed. note: Mr. Cox received many letters for his fine amber article and it is being republished in the *Gemmologist* of London. He is now preparing an article for the *Journal* on coral, which will probably appear in our February issue.)

✡ ✡ ✡

Wouldn't be without it. It's amazing that you can keep it so consistently good and interesting. C. M. Corwin, Porterville, Calif.

✡ ✡ ✡

I am an avid reader of *Desert Magazine* and *Lapidary Journal*. It becomes more and more difficult to locate beds accessible to the general public. Two reasons are given: the owners are realizing the value of their property and the greediness of *some* rockhounds. One man told us that he had given hunting permission to a couple in a sedan, to discover later that they were part of a party with a truck and plenty of tools waiting a few miles away. W. L. Dickson, Orondo, Wash.

✡ ✡ ✡

Congratulations once again for your most excellent *Journal*. Want more tangible proof? Enclosed find my renewal. Joseph Hillel, M.D., North Bergen, N. J.

✡ ✡ ✡

Issue by issue this printer marvels at the plentitude of good articles in the *Journal*. I know what hard work goes into getting out a magazine. Arthur W. Browne, Mountain View, Calif.

✡ ✡ ✡

The August issue is very, very good—as you yourself noted with warm appreciation on Pages 240-243. Your summary of the forthcoming lapidary show in Long Beach is, I believe, the most appealing piece of its kind I have ever read. I know how difficult it is to avoid being tedious in a job of this sort. My hat is off. Brooks Shepard, Saxtons River, Vt.

✡ ✡ ✡

The *Lapidary Journal* continues to be the best $2.00 expenditure I make during the year. This is one magazine on my "must" list. Virginia G. Breed, Berkeley, Calif.

✡ ✡ ✡

I enjoyed the article *Out of the Dim Past* in your August issue. Being a "bug" on amber, especially with plant and animal inclusions, I could only too well understand Bill Rebma's concern when his specimens showed up minus the insect inclusions!

As ridiculous as the whole story seems I thought it might be of interest to you and your readers that some sincere efforts have been made in the past to free inclusions from amber. Perhaps the most notable of these recorded attempts is that recorded in the French *Academie des Sciences* by Dr. V. Gallippe, *Academie des Sciences au 6 Avril 1920, Tome 170, No. 14.* Dr. Gallippe declared that he was able to free from their prison certain of the micro-organisms fossilized in amber millions of years ago. He continues that after cultivation they developed great activity. His statement has lacked later confirmation however.

Perhaps it was this bit of recorded research that originally prompted the writing of *Out of the Dim Past*. Robert A. Wells, Buffalo, N. Y.

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We wish to thank our host of friends for their unusual patronage this past season. We have now closed our agate diggings for the winter and until the last Saturday in March. In the Spring and Summer we hope to see many of you again and meet many more new wonderful rock people.

Merry Christmas to All

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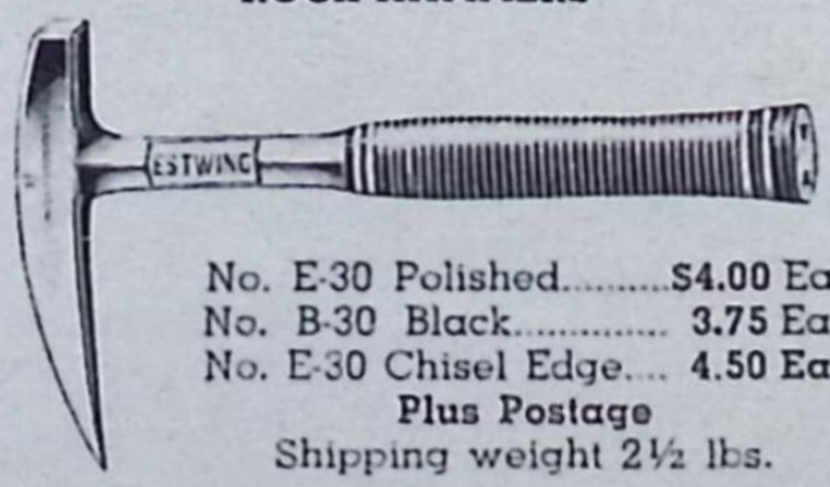
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◆ Shop Helps

If you have found a useful short-cut in your shop send it in. We will give you credit. The most skilled craftsmen, as well as beginners, find this department useful.

J. P. Erwin of Lewisburg, W. Va., writes that he tried applying Simonize paste after sanding with worn out fine sanding paper. He allowed the paste to dry before buffing and reports wonderful polishing results.

* * *

The following items were recently reported by Ray Lulling in *The Rock Rustlers News*, bulletin of the *Minnesota Mineral Club* of Minneapolis-St. Paul.

Are you having trouble with your dopping wax breaking between the dop stick and the wax? If so, the dop wax is too brittle and can be made more pliable by adding a little beeswax to it. The beeswax will make the dop wax more sticky and less brittle and grip the stone to the dop while grinding. Do not add too much beeswax or the melting point will be lowered so that the heat generated by grinding will loosen the stone. Try adding a piece of beeswax only the size of a pea to one-fourth of a pound of dop wax.

* * *

Iris agate slices will show rainbow colors without polishing if you cover the surface with transparent scotch tape. After sawing the iris agate into very thin (the thinner the better) slices, clean and dry them off and put scotch tape on both sides and press the tape on firmly. This same effect can also be obtained by spraying the sawed surface with clear lacquer and let it dry.

* * *

Do you have trouble mislaying or losing your rock hammer or chisels by laying them down on rocks or in the sand and you can't find them again because the rusty hammer or chisel is the same color as the earth? I keep my hammer head and chisel blades highly polished so that they can easily be seen against the sand or rocks. If you have no way of polishing the tools, then paint them a bright color in contrast to the sand and grass. This helps a lot.

* * *

When you leave your car to go after rocks, take along a gunny sack. I find that besides being a good conveyor for your bulky stones, it doesn't take up much room with the rest of your luggage and it is quite a comfort to have a rolled up gunny sack to sit or kneel on when working on stones that you have to break or chisel out.

* * *

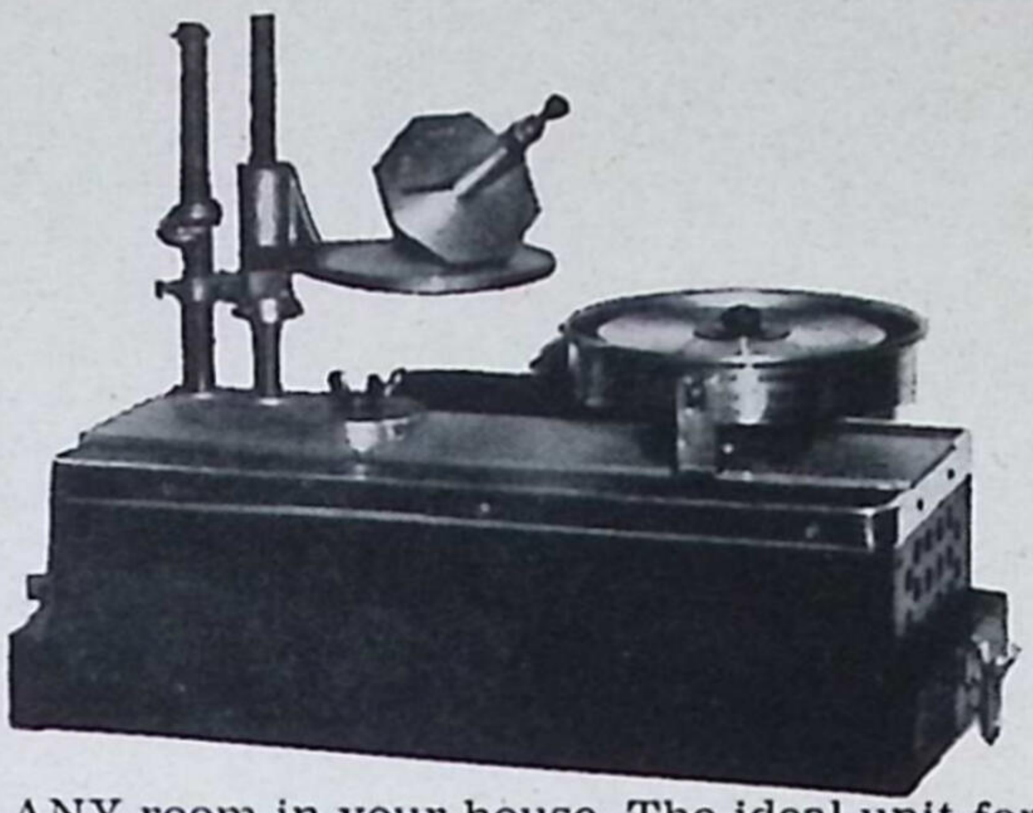
If the wooden jaws of your slabbing saw are chewed up and need replacing, replace them with second growth hickory instead of hard maple. The hickory is much tougher than maple, will grip the stone just as tight and will last much longer.

* * *

Save the waste grit from your hard emery wheel grindings. You can wash it, screen it and use it over again for lapping or for tumbling stones. Also, save all the pieces of any broken grinding wheels. They help a lot when put in the tumbling barrel.

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For the First Time in Lapidary History, a Portable Faceting Machine That Is Really Portable



THE NEW

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With the Time-Proven O'BRIEN MODEL D FACETING HEAD

Now you can bring your faceting in from the garage — up from the basement. The New **O'BRIEN PORTABLE is clean** and compact—can be used in ANY room in your house. The ideal unit for a hotel room or small apartment. It's no larger than a small sewing machine. Perfect for traveling, too. It's **light**—less than 30 pounds—it's compact—only 18" x 9¼" x 12½".

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O'BRIEN PORTABLE, same as above but with **DIAMOND CHARGED** copper lap.....**$129.50**
Either machine F.O.B. Hollywood, Calif. Sh. Wt. 40 lbs.
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NEW SERIES OF CARVING LESSONS WILL RUN IN THE JOURNAL

In response to many suggestions through the years we are at last in a position to offer a series of lessons in carving gemstones. The first article appears in this issue of the *Journal* on page 398. Our difficulty has been twofold; to find a gemcutter sufficiently skilled in the art of gem carving to merit attention and to find one who was willing and able to communicate his ideas to others.

Our Author, Gordon Kennedy, has been attracting attention for several years in the Los Angeles area with his finely executed carvings in many gemstone mediums. We are fortunate in having persuaded him to write a book on the subject and to allow us to have pre-publication rights to most of the material for our readers.

We hope that the series will find great favor but we hope more particularly that the information will inspire many cabochon artists to attempt to advance in the lapidary art. As people do try carving we hope you will send us photographs and descriptions of your work so that others may be encouraged. We also hope that every show hereafter will carry a special class for carving as that would encourage more people to experiment with their hidden talents.

We asked Mr. Kennedy to tell us something about himself to pass along to our readers and he sent us the following interesting information:

"I was born on a ranch in Carter County, Montana, on April 2, 1915. At an early age my parents moved to the small town of Ekalaka, Montana.

"As a boy I spent most of my spare time drawing in various mediums and carving in soap and wood. At the age of eleven, I decided to make a violin. Surprisingly enough it played well and I won first prize at the county fair—for the violin making and not for my playing!

"Later on my eldest brother and I cut and polished agates, which we found on the nearby hills or they were sometimes given to us by interested townspeople. Our methods were crude, as we were miles from a town of any size and, of course, there just wasn't the choice of supplies to purchase that there is now. We did achieve considerable success, but we spent days of spare time on each stone.

"Perhaps it will be of interest to you to know exactly how two boys, with very limited finances and no supplies except those at hand, managed to cut and polish agates. We used the old treadle cycle grinder to cut a niche in the stone. Then we put the agate in an old blacksmith vise and with a hammer we would knock off the piece we were going to work on. Then back to the old grinder to take off the excess agate. Next we needed Dad's razor hone to smooth the stone and then Mother's Dutch Cleanser, mixed with water, in a grooved board. This served as polish when we rubbed the stone back and forth in the groove.

"Ranch life, combined with the love of nature and the beauty of the countryside, provided varied inspiration for making many things of agate and other stones.

"In high school I excelled in sports and managed to win several honors for my school in the track meets. I spent my long winter evenings and weekends carving animals in wood. After graduating from high school I studied art in various forms with the Washington School of Art.

"The jeweler's apprenticeship, which I served at Baker, Montana, was another step which increased my knowledge of working beautiful stones and provided lots of practice in making jewelry.

"After the apprenticeship, I went to Florida. Business conditions in Montana were bad, due to drought and general depression. Under the guidance of a relative I was able to get a job doing sign painting. This proved to be only a meager living so I decided to go back to Montana.

"With the help of a friend I set up my own jewelry shop. Everything went fairly well but I realized another move was still necessary. California looked promising, and I had been asked to drive elderly friends of the family to California. This was just what I had been waiting for.

"My first job in California was doing window display trimming for a large department store. However, I continued

(*Concluded on page* 468)

If You Only Knew

Now is the time to make that jewelry, and to cut those fine stones, found on your vacation. See us for, findings, gold and silver ring mountings, fancy, plain, wedding, bridal sets.

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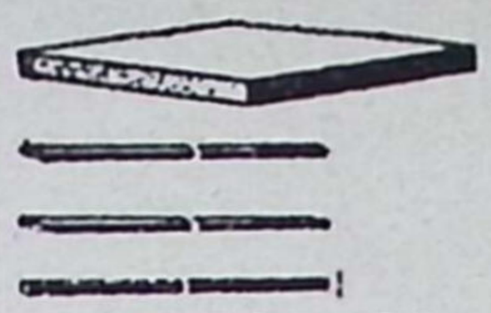
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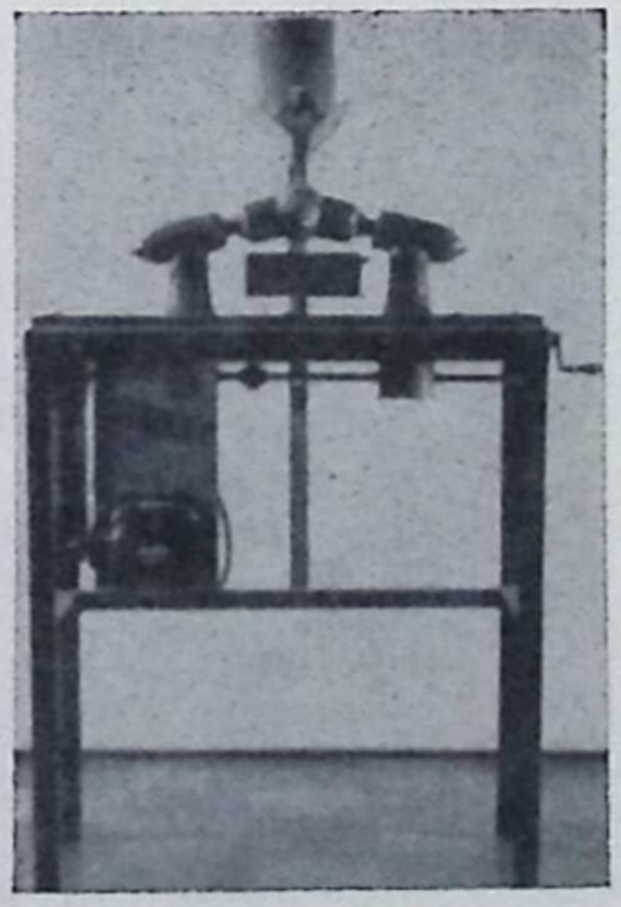
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◆ A New Dopping Method

By RAY C. MITCHELL
2753 Hawthorne St., Franklin Park, Illinois

Dopping is the name of the process whereby a stone is affixed to the end of a stick for ease in handling when performing the several operations necessary to shaping and polishing. The name derives from the German, the term and process being in use for many years at the gem cutting town of Idar-Oberstein. Its root origin is uncertain but I suspect that it derives from the German word *dopplich* meaning *awkward*. I arrive at this after observing the technique in use by many amateur cutters.

(Editor's Note: We understand that it derives from the Holland Dutch word for daub stick.)

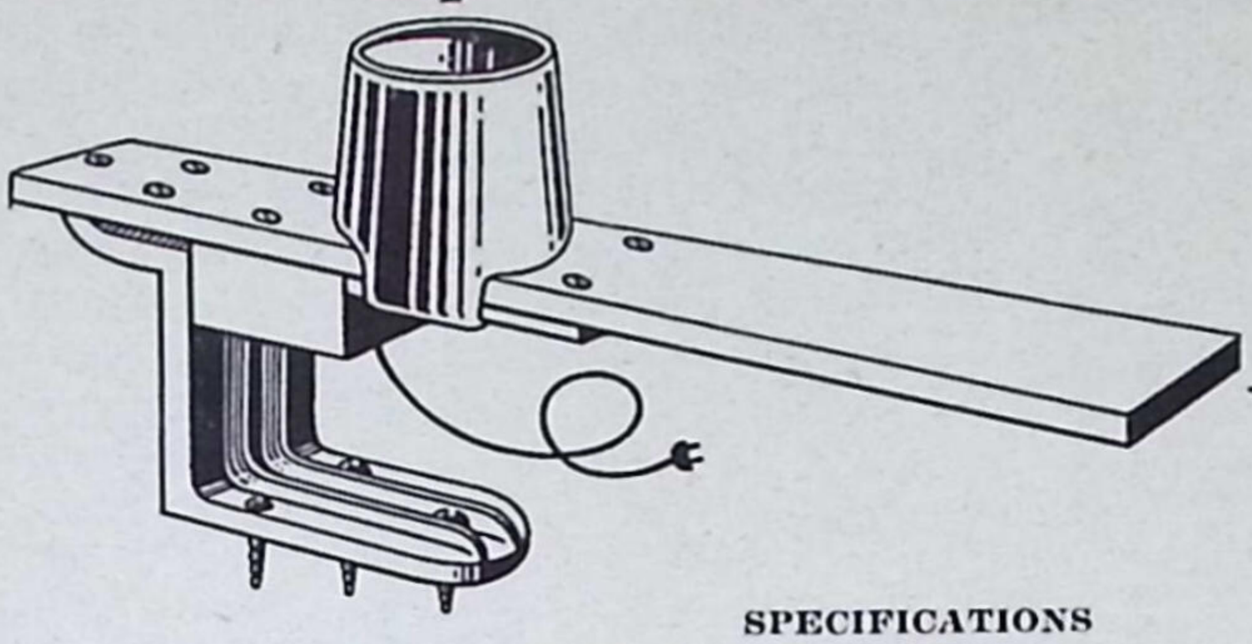
It is odd that so little advancement has been made in this important operation, in view of the perfection of techniques in all other phases of the work. As a full time lapidary instructor I conduct ten classes a week in the Chicago Parks, and have been so engaged for fifteen years. In our classes several hundred stones are cut each week, most of them by beginners in this work. This has long posed a problem, as much experience is required before good dopping results may be obtained, without burned fingers, dripped wax and damaged stones, where the usual gas burner methods are in use.

Some years ago we decided to experiment with a temperature controlled electric heater unit, maintaining the wax at a proper plastic temperature, and providing a hot plate surface for heating the stone to proper dopping temperature. A unit was finally evolved consisting of an electric heater element and variable thermostat mounted at one end of a wide strip of metal. The wax pot is placed on top of this strip, and may be moved to a location on the strip where proper temperature is maintained. In use we keep this pot directly over the heating element, and set the thermostat to maintain the wax at about 250° F. The metal table is 17½ inches long by 3 inches wide. At furthest end from the heater the temperature of this plate is about 190° F. This is a good temperature for preheating heat-sensitive stones. Temperature increases as stones are moved closer to the heater end of the plate, giving a gradual increase to dopping temperature. We place opals on a piece of cool asbestos paper on the cooler end of the plate, thus allowing the stone to heat with the asbestos. This eliminates the shock of contact between a cold stone and a hot plate.

The stone is placed, bottom up, on the cooler end of the plate. A dop stick is dipped about ¾ inch into the soft wax in the pot and the wad of wax adhering is pressed against a cool flat metal or porcelain plate to form a flat end, and to cool the wax so that it will not run or drip. The hot wax will not stick to a cool, smooth surface. For larger stones, cool this first dip, and redip to secure more wax on the stick. For oval or oblong stones, preshape the wax to about the stone shape, using the fingers. A small can containing a rag moistened with kerosene or fuel oil is ideal for moistening the fingers for shaping the wax. Use of water or licking the fingers will also prevent wax from sticking, but use of kerosene or fuel oil has been found to be a better practice. Only a trace of the oil is required, and it does not evaporate like water. Also an excess will not crack the hot stone; a danger when water is used. The stone is picked from the plate by pressing the flat wax surface against it, on the plate. It will adhere to the wax.

The wax is now shaped to the base of the stone and evenly tapered to the stick. All creases and folds should be smoothed in the wax, as abrasive will get into such folds and may subsequently

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Standard. Heavy cast aluminum, ribbed for strength.
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work out in the polishing operation, contaminating the polishing wheels. Care should be taken that the stone is centered, with the flat base at right angles to the stick. It is difficult to grind a well balanced shape where the stone is off center or mounted at an angle to the dop stick.

We use ordinary hardwood dowels to make our dop sticks, cutting them about three inches long. A supply of ⅛, 3/16, ¼ and ⅜ inch sizes are kept on hand.

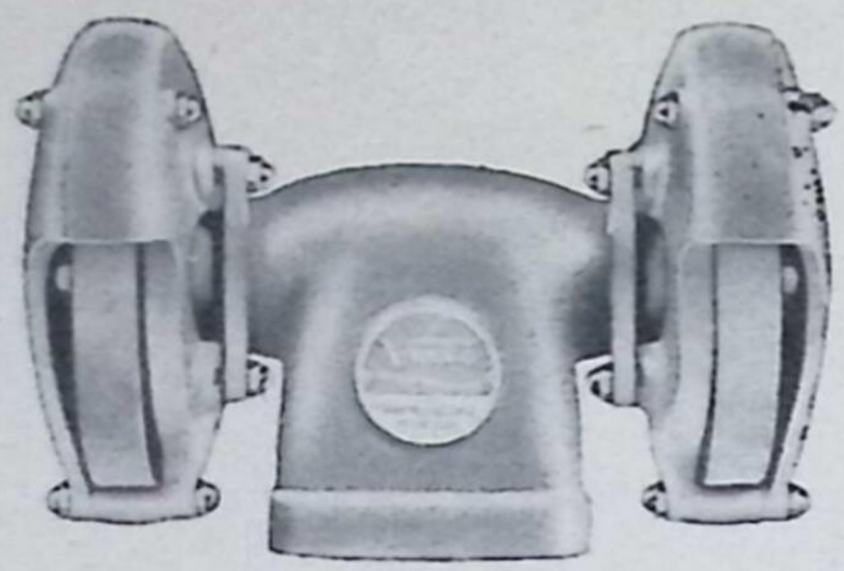
When cutting small stones, we prefer to use a ¼ inch dop stick, and turn the end down to stone size with a pencil sharpener. The small stone is dopped to this tapered end. This gives a better cutting handle than when using a tiny dop stick to match the stone.

Stones are removed from the dop by first chilling with cold water, then placing a knife edge on the wax about 1/16 inch below the stone. Give a sharp rap with a metal tool, striking the blade to one side of the stone, so that the tool will not strike the stone when it pops off. A little wax adheres to the stone but it may be removed by soaking for a few minutes in alcohol. We use a piece of ⅜ inch iron rod about 8 inches long for the striking tool in this operation. Stones may also be easily removed from the dop by being placed in the freezer compartment of an electric refrigerator for an hour or two. Most of them will fall off and the balance may be easily removed by tapping the edge against a table top.

We clean our dop sticks for reuse by placing a bunch, wax end down, in the heated wax pot until they are soft. Wax is then removed by rolling the stick against the inside of the pot above the wax level.

Use of the temperature controlled electric unit is very economical. No wax is wasted, and none is ever spoiled by overheating. There is no wax drippage, and no gas burners to be clogged with wax. We never have the pungent smell of burning wax in our shop. No stones are ever damaged by too much heat or by contact with a flame.

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NEWS OF THE DEALERS

Chuck Gritzner (GRITZNER'S MINERALS) editor of *Gritzner's Geode* and the *Collectors Guide to Wonderful Wyoming* is also a guide equipped to conduct parties on field trips to Arizona mineral and gemstone localities. Send to 135 N. Sirrine St., Mesa, Ariz., for his literature and schedule of his Desert Adventures. For a nickel he'll send you his price list and a copy of his little magazine—the *Geode*.

* * *

We now learn that it was *missus* MATHIEU who cut all those spheres pictured on page 326 in the October 1953 *Journal*. Our *Journal* genie never told us. Why some of those spheres weigh more than she does. . . . GEM LAPIDARY has acquired the Washington School of Gemology in Washington, D. C., and will conduct classes in gemology and lapidary procedures. They will also recut stones and repair jewelry for commercial jewelers. . . . AMERICAN GEM & MINERAL SUPPLIERS ASS'N reports that polished agate marbles fall within the classification of toys and are not taxable. If cut in two to show a bull's eye gem they are taxable as semi-precious stones. . . . GILBERT MORGAN of Smyrna, Wash. (petrified woods and paper weights) is the proud father of a new daughter. . . . The GEMOLOGICAL INSTITUTE OF AMERICA reports in the *Loupe* (published for their students) that they were privileged to see the 138 carat star corundum which has been acclaimed in the press as the largest known star "ruby" and has been displayed beside the De Long star of 100 carats in the Morgan collection at the American Museum of Natural History in New York. The two stones are reported to be strikingly similar in color but there is a controversy as to whether they can properly be termed ruby as in daylight the color grays and lightens. . . . Anita C. Marshall of the MARSHALLS, recently removed from Fresno, Calif., to Morgan Hill, Calif., reports that they are now settled in their new establishment and that they have added a line of redwood gift products to their gem and mineral line. She also reports that Morgan Hill was the name of the founder of the place and that it is not

a hill named after a Mr. Morgan, as many suppose. . . . CHARLES WEIDINGER, long a jade advertiser with us, has added a complete line of lapidary equipment and supplies. . . . ALTA INDUSTRIES has moved again in Phoenix, this time to 2123 W. Encanto Boulevard. They manufacture the ALTA line of lapidary equipment. . . . B. W. MORANT is marketing what promises to be a new advance in sanding cloth. It is a screen, woven from tough nylon fibers. It looks exactly like a window screen and it is coated with silicon carbide abrasive on both sides so that it should outlast the conventional sanding cloth several times. Morant reports that "from an economy measure I find sanding screen has outlasted the ordinary sanding cloth in many cases. Especially is this true when one is sanding materials like howlite or malachite. When the sanding screen fills I merely rake off the disk or drum cover and give it a good shaking. If one side is worn badly, turn the sanding screen over and you have a new unused side free. Because of the softness of the sanding screen a better wrap is noticed, as one presses into the rubber backing of the disk or drum with the cabochon. I do not believe that this sanding screen will take the field away from the other sanding cloth. We will probably find many new uses for this item, new to the lapidary hobby. Sanding screen is made by Bay State Abrasive products Westboro, Mass. It was primarily developed for wet or dry uses in the automotive industry. In industry this material is called grit cloth. I choose to call it Sanding Screen because of our lapidary use for this material." . . . A new gadget for locking a gemstone in a bezel has been devised by BRAD'S ROCK SHOP of Ferndale, Mich. We have examined the item and it is illustrated in BRAD'S ad on page 395. We do not do silver work but we have had local people use the gadget and they are delighted with it. . . . Many people have been inquiring about the next edition of the ROCKHOUND BUYERS GUIDE. The first edition this year was all involved with Christmas and inventories and the year end clutter that comes to all businesses. It is a time of Society elections etc. We therefore concluded that the logical time to publish the GUIDE hereafter would

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be about April 1 when people are planning their vacation travels and want fresh up-to-date information. The GUIDE was tremendously successful and the new edition will contain corrected information and much new additional information. It will be larger and will have to cost a little more because it must be sent as Parcel Post and not as a book at a special rate. Please send us no money for the new edition but if you are a dealer please send us your listing NOW to help us in our great task. Listings are FREE but the ads cost plenty although they are paid for with what are reported to be 43c dollars. If dealers wish to reserve space that will help too. Many dealers reported tremendous results from their ads in the current GUIDE. THE GUIDE IS STILL AVAILABLE AT $1.25 a copy plus 10c toward postage and many dealers still have a stock at $1.25.

* * *

SONGS FOR THE CHRISTMAS PARTY

When your club sits around the board for the Christmas party and the singing begins you might try out the following songs on your old pianer. They were written by Clara Wilkowski, Route 4, Box 88AA, Olympia, Wash. Clara is a member of the *Tenino Rock Cruisers* of Tenino, Wash. The first verse is sung to the tune of *There's a Long, Long Trail Awinding* and the second verse is sung to the tune of *In the Shade of the Old Apple Tree.*

There's a long, long trail awinding
Into the land of my dreams,
Where the opals grow on bushes
And there's jade in them there streams,
Where the hills are full of agates
And no matter where I roam
I'm a very happy rockhound
Just a long, long way from home

In the shade of the old apple tree
That's where most folks would sure like to be
But a rockhound you'll find
Where the sun drives you blind
Or where huge waves roll in from the sea.
They go hiking and digging, by heck,
While the sweat gently rolls down their neck,
And if one rock they'll find
That is just the right kind
Then who cares for that old apple tree.

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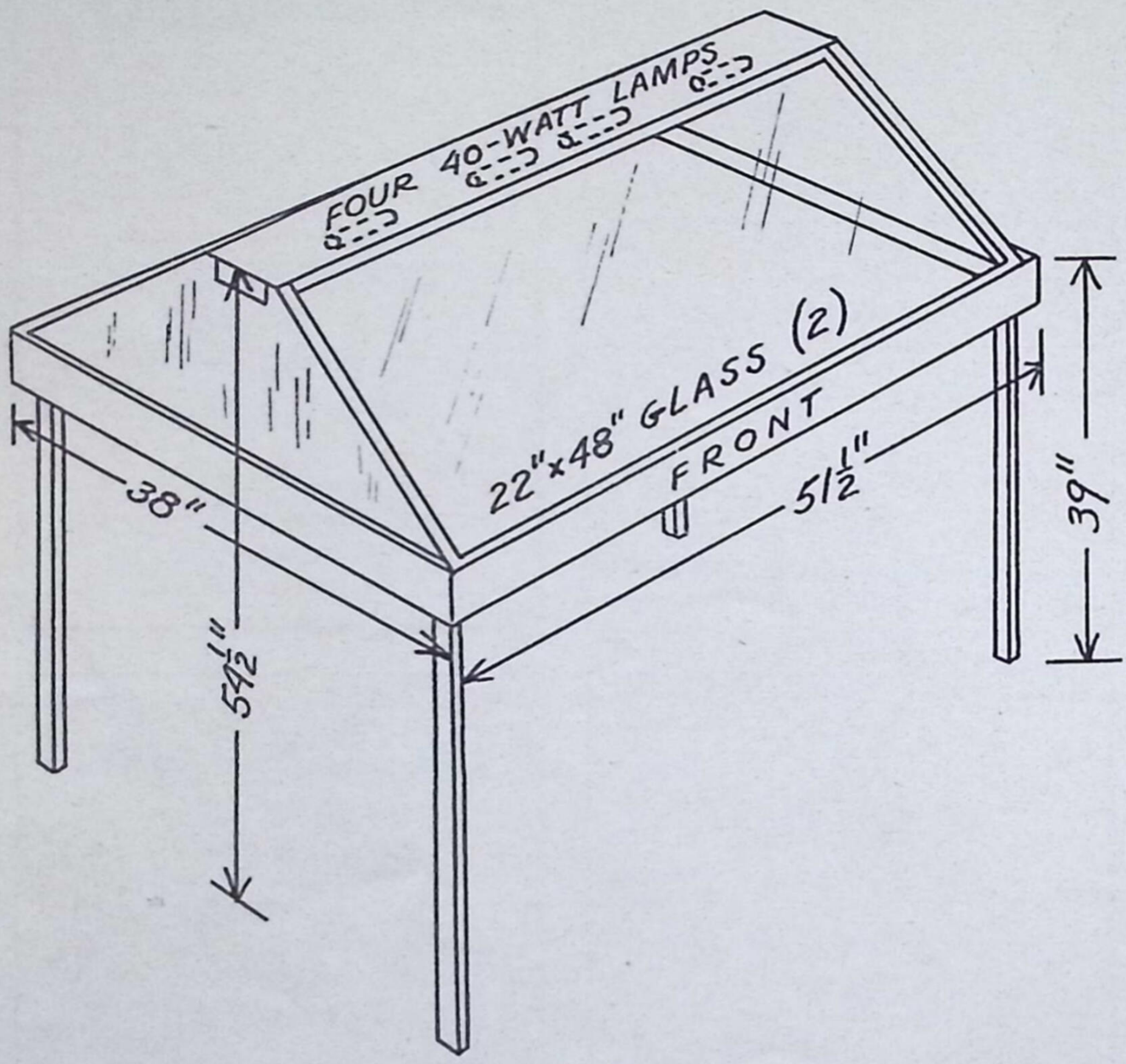
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New Showcase Designed for Eastern Federation of Mineralogical and Lapidary Societies



Mr. Louis Eaton Shaw of Newark, N. J., sent us this sketch of the new double showcase designed for the use of member societies exhibiting at the annual shows of the *Eastern Federation of Mineralogical and Lapidary Societies*. These cases were first used at Paterson, N. J., at the October show. Mr. Eaton does not say who designed the cases but we suppose he did for he has an engineering firm. He is the designer of the Scott Faceter, which is finding wide acceptance among the lapidary fraternity.

These cases are collapsible to 5" x 38" 51½" for easy transportation and storage and they are equipped with locks. The interior lights are so wired that the cases may be connected one to another in rows of four from any standard outlet. Thus, if one case is placed next to a wall there is no necessity for loose wires on the floor. This appears to us to be the best show case that has come along to date. This case presents all manner of decorating possibilities, with shelves etc.

HOW WE TUMBLE ROCKS

(As reported by Wade and Mary Brookreson in *The Voice*, bulletin of the El Paso Gem and Mineral Society)

Well, we have been tumbling some stones, and as you say, it is almost a millionaire's hobby. It is rather hard to collect and list the facts about tumbling as no two batches ever come out the same. You have to do everything just so and keep your fingers crossed and hope for the best—maybe they'll polish and maybe they won't! The main thing, or one of the main things, is patience and more patience. I will try to tell you of our different trials and the different results.

Our first batch has been our best so far. We put in 58 pounds of agate slabs, heels and odds and ends. Our instructions were to put in ten per cent of the weight of the stones in grit, so we put in about six pounds of No. 100 grit, as it was mostly sawed material. If the material had been rough we would have used No. 80 grit. We also put in about 1 lb. of Tide and a couple of handfuls of baking soda, as we didn't have any washing soda at that time, as the water tends to become quite acid when grinding agate, hence the soda. After about 48 hours we checked the stones and they were practically smooth, with no saw marks, so we took them out of the machine, washed them thoroughly, emptied the can or drum and cleaned it, put the stones back in with 6 pounds of No. FF grit and more Tide and soda. After 48 hours in the finer grit they seemed ready to polish, so we washed them again, cleaned the drum and put them back with several pounds of levigated alumina polishing powder.

We could hardly wait for the 48 hours to end to see if they were polished and when we did check—no polish. Well, we tumbled them two weeks in that powder and could see no difference than when we first put them in it. In the mean time Ed Archer had sent us his information on tumbling for us to read and said that Tide would do the work. So out they came again, were washed and put back with 1½ pounds of Tide and more soda. In 48 hours they were polished perfectly! But the next batch refused to polish. We did not put any polishing powder with them but tumbled them for a week in the Tide alone and

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Citrine, gold. faceted, octagon 12x10 each $3.00
Citrine, gold. faceted, cushion, 12x10 each $3.00
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Synthetic Ruby, faceted, octagon 14x12, each $2.50

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HERBERT WM. LAWSON

TERREBONNE BOX L OREGON

got a very poor polish and had to do the good ones on the lap wheel by hand. They were easy to do and we placed the poor ones in with the next batch and tumbled them for another week, but still did not get as good a finish as the first ones.

We plan to experiment with some 1200 grit on the next ones, for the last "goround" and if they don't polish good, then it will again be the use of polishing powder before the last tumbling with Tide alone. I could tell more of our ups and downs in this tumbling business, such as Wade scrambling around hunting a more comfortable position while we were digging the rocks out by the handful and hitting the electric switch with his knee—you know what happened! Nice agate slabs flew all over the cement floor and broke into a jillion pieces. He was certainly disgusted and now we pull the cord from its connection before we work with the machine. It's lots of fun though and we hope to master it some day. We now have the machine full of bits of carnelian agate and are determined to get a good polish if we have to use all the levigated alumina and Tide in the country.

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A NEW VARIETY OF GEM ENSTATITE

(As reported by R. Keith Mitchell, F.G.A., in the *Gemmologist.*)

The announcement of a new gem variety is a comparative rarity in the gemological world and therefore I feel that readers will be interested in a small parcel of faceted enstatite which I recently received from abroad.

Enstatite is a gem species considered to be essentially a collector's stone, it is normally thought of as green in color. The present gems, however, are a deep rich reddish-brown varying to greenish-brown in stones cut with different orientation to the principal optical directions.

The refractive indices of the material vary slightly around 1.669 and 1.680 for the least and the greatest values. Specific gravity is also fairly constant at 3.33 suggesting that the material is all from one small locality. The optical sign is negative which argues that the mineral is the iron rich form known as hypersthene, or bronzite, rather than the normally accepted magnesium silicate recognized as ordinary enstatite. The physical constants confirm this to be so. Opaque bronzite has been cut en cabochon in the past but has yielded nothing, to my knowledge, to compare with the present stones.

The pleochroic colors of dark reddish brown, pale reddish-brown and brownish-green are in marked contrast when seen with the dichroscope, and in this respect the stones rival many of the outstanding examples of the phenomenon.

The absorption spectrum gives the usual narrow band centered at 5060A expected in enstatite, but with fainter supporting lines on either side. This group is remarkably clear cut and the center line is extraordinarily intense. A marked but broader and less clear cut band is present in the green, while no fewer than three other bands were observed in the blue and violet. The third of these is very intense but a little difficult to observe owing to general absorption of blue wave-lengths. Altogether the stones provide a distinctive and interesting spectrum.

The gems are for the most part very

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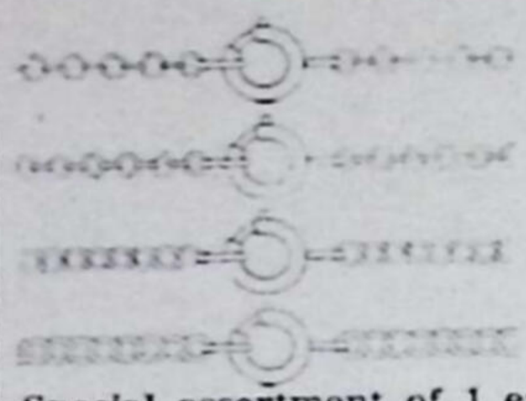
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clean and there are no obvious inclusions, but in one or two instances there are signs of cleavage. This property has proved a considerable bugbear when cutting the material. Of four pieces of rough attempted in this country only one produced a perfect stone, weighing under one carat. Other rough flaked off in fragments almost reminiscent of cleavage flakes of mica.

To sum up, it is certain that this brown gem enstatite will interest the collector of the rare and fascinating among gems. But there is by no means sufficient quantity of the material to achieve a wider and more popular market. It is, however, a radically different stone from the enstatites usually seen in collections and as such should excite interest in the gemological world.

* * *

PLANS FOR 1954 CALIFORNIA FEDERATION SHOW

Plans for the 1954 convention and show of the *California Federation of Mineralogical Societies* (March 26, 27, and 28) are well under way. The six members of the Convention Committee, Glenn Vargas (Chairman), Mrs. Erva Smith (Secretary), and Mrs. Dorothy Faulhaber of the *Coachella Valley Mineral Society,* (Indio) and Beauford Hansen (Treasurer), Dick Gilmore, and Jim Adrian of the *San Gorgonio Mineral and Gem Society,* (Banning) report the desert show plans and arrangements are ahead of schedule. The working committee chairmen have been functioning for some time. Despite the early date for the convention next year, a really fine show is in the making.

Camping: This is to be a "camping" show. More than twenty-five acres of camping area have been reserved in the Riverside County Fairgrounds, at Indio free of charge, for those who would like to spend their nights under the unmatched splendor of a sky found only in the desert—under a canopy of stars clearly visible nearly every night in the year. The entire camping area is under the shelter of date palms and within a short walking distance of the convention show in the Indio Fairground buildings. Temperatures during March are usually very mild on the Colorado Des-

ert. Reservations for choice camping spots should be made through Clifton Carney, Box 411, Desert Center, California, with mention of the number in each party and space required. Mr. Carney reports requests for reservations are already arriving. Make yours early!

Barbecue: The highlight of Saturday evening will be a Western barbecue! Arrangements for barbecuing huge quantities of beef in pits are in progress. This will take the place of the customary annual banquet.

Program: Mrs. Jessie Hamner, program chairman, promises treats to revive the spirits of foot-weary rockhounds. Campfire programs, movies, and seminars are being considered.

Dealers: There will be a limited number of dealers present at the convention. In order that there may be a well balanced assortment of material available for rockhounds to purchase, the Convention Committee will select dealers carefully from among those applying for space. Those interested should write to CONVENTION COMMITTEE, Box 512, Indio, California.

Field trips: The locality for the show is a rockhound's paradise, centrally located among favorite desert collecting areas. Field trips to the most famous of these will be conducted in conjunction with the Convention. Hauser Beds for geodes, Coon Hollow for iridescent chalcedony (fire agate), Crystal Hill for quartz crystals, and other localities will be visited under capable leadership.

Indio, situated in the center of a great desert agricultural valley in Riverside County, is accustomed to handling great numbers of visitors. Housing in hotels, motels, and trailer courts will be available to those who do not wish to camp out under a desert sky. Indio is a hospitable and friendly community where rockhounds and their friends will receive a hearty welcome. It is but eleven miles east of Palm Desert, rockhound headquarters for America because it is here that the *Lapidary Journal* and *Desert Magazine* are published. It is hoped that visitors to the Spring show will visit our gem and mineral exhibit and art gallery in our offices for we will arrange to be open early and late during the days of the Indio show.

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(lifted from the *Gem Cutters News*, bulletin of the Gem Cutters Guild of Baltimore)

Gold: If an article is made of gold and is stamped gold, it must also bear a quality mark such as "10 karat" (10), "14 karat" (14). If an article of gold is given a quality mark, the fineness by assay must not be lower than: Watch cases and Flatware — .003 less than stamped quality. Other articles, not including solder—.0208 (½ karat) less than the stamped quality. However, the assay of a complete article, including solder, must not be more than .0417 (1 karat) under the stamped fineness per karat. For example, the gold in a 14 karat watch case, free from solder, must be at least .5803 by assay. The entire case, including solder, must assay at least .547 (13 karat). A gold ring, not soldered, stamped "14 K" must assay at least .3958 (9½ karats) and the entire brooch, solder and all, must assay at least .3750 (9 karats).

Silver: The silver in any article stamped "Sterling Silver" should assay .925, and the silver in the article marked "Coin Silver" should assay .990. The silver in an article, not including solder, must not be less than this by more than .004. For example, an article marked "Sterling Silver" free from solder, must assay at least .921.

Soldered parts must not reduce the assay of the entire article, including solder by more than .010 under the standard assays of .925 and .900, respectively, for sterling silver and coin silver. For example, an article marked sterling silver, when melted, including solder, must assay at least .915.

Gold and Silver used with Inferior Metals: An article made of an inferior base metal combined with gold may be marked "Rolled Gold Plate," "Gold Plate," "Gold Electroplate," or "Gold Filled" as the case may be. If a mark is used to indicate the fineness of the gold, it must be accompanied by one of these terms. For example: "10 K. Rolled Gold Plate," and "14 K. Gold Filled."

The words, "Sterling" or "Coin," alone or in combination with the other metals cannot be used to describe a

plated article. For example: "Sterling plate" is prohibited.

Penalties: Violators may be fined up to $500.00 or be imprisoned up to three months, or both, at the discretion of the court.

* * *

CONGRESSMAN DORN INTRODUCES BILL TO COMBAT SMUGGLING

A bill to increase the penalties for convicted smugglers was introduced in Congress on July 7 by Rep. Francis E. Dorn (R-NY) at the behest of the *Diamond Manufacturers and Importers Association of America* as part of its continuing program to curtail the illicit traffic in gems.

Under the present law, the maximum penalty for smuggling is a fine of $5000, or two years' imprisonment or both.

The new measure introduced by Rep. Dorn, prepared in collaboration with Wallace W. Harwood, President of *Diamond Manufacturers and Importers Association of America,* and Arthur S. Hirsch, former Deputy License Commissioner and presently General Counsel of the Association, recommends a $10,000 fine or five years imprisonment or both.

The Association has urged for a long time, more stringent methods of combating the diamond smuggling trade, pointing out that not only do legitimate diamond merchants lose trade through the illegal exchange of valuable gems, but the government is also cheated of taxes amounting to a substantial amount of the net value of the diamonds.

Smugglers, by their evasion of lawful entry of the gems, bypass a 20% excise tax, a 10% import duty, City Sales tax in some places and, of course, the Federal and State income taxes accruing on profits from their sales.

Although the United States Government offers rewards of 25% of the value of gems (up to $50,000) to informants, the Association reported smuggling goes on unabated. "Other and more strenuous deterrants are necessary," Mr. Harwood said, "and closer cooperation must be obtained with source countries to help stamp out this illegal traffic."

He said his Association had repeatedly urged the exchange of information on smuggling activities be coordinated so as to obtain greater efficiency between international criminal detection and ap-

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prehension agencies. He also said the Association has recommended an educational program aimed toward the general public.

Some persons with information are genuinely afraid to contact the government directly, Mr. Harwood explained. He said that Mr. Hirsch, the Association's General Counsel, would make himself available to receive information from those who have knowledge of diamond smuggling activities, and would see that it got into the proper hands, with the government reward being similarly relayed to the informant.

Hon. Frank J. Parker, former United States Attorney for the Eastern District of New York, and one who has been very active in convicting smugglers, as one of his last official acts before resigning last month, advised the Law Revision Council of the Committee on the Judiciary in Washington that he would like to see the penalty for smugglers increased to five years.

To give an idea of the breadth of the diamond smuggling racket, Hirsch revealed that for the past 2½ years from January, 1951, to June 1, 1953, 7,-740.54 carats amounting to $1,001,212 in value was recovered by government seizures of smuggled diamonds, and during 1951 and 1952 approximately $750,000 of merchandise other than diamonds was seized from smugglers by the government.

This amendment will apply to smugglers of all merchandise, including diamonds.

* * *

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Book Reviews . . .

MINERAL COLLECTORS GUIDE by David E. Jensen—$1.00. Published by Ward's Natural Science Establishment, Inc., 3000 Ridge Road East, Rochester 9, N. Y.

Here is a neat little paper bound book of well illustrated pages (36) that gives the story of mineral collecting and is filled with good advice about how to start and how to maintain one's interest after making a start. Written by the head of the Geology Department of *Ward's Natural Science Establishment,* it comes from the long experience of a man who has probably sold more mineral specimens than any one else in America. The little book tells how to make use of maps and the various government agencies, what books the beginner should buy, what tools and equipment he needs, where to go and what to look for. And then it tells what to do with your finds or swaps or purchases after you acquire them. One very valuable aid to everyone is a list of all the state geological agencies from which maps and mineral location information may be secured. This is a big package for a dollar and the little book should be in the library of every person interested in any phase of the rock collecting hobby. For sale by the *Lapidary Journal* at $1.00 postpaid or $1.03 in California.

* * *

SCHMUCK — und edelsteinkundliches Taschenbuch (Jewelry and Gemcraft Handbook). Published in German by Bonn University at Bonn, Germany. Price in American dollars unknown. Not stocked by *Lapidary Journal.*

This book is mentioned here because it will no doubt have a wide appeal to collectors of gem books and particularly to those with a reading knowledge of German. Certainly it is one of the most beautiful and best printed books on minerals ever to come off the press. This book is a combination of a mineral and gem dictionary and a book on gemology. It contains beautiful plates in color. From our limited knowledge of German we read with interest that they are just as careful to call yellow quartz by its right name of citrine rather than "topaz" and "topaz quartz" as we are

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in our *Lapidary Journal* policy. Several advertisers have written to tell us that in Europe yellow quartz is called "topaz" by all gemologists. It doesn't appear to be true.

* * *

THE URANIUM AND FLUORESCENT MINERALS by H. C. Dake. Published by Mineralogist Publishing Co., 329 S.E. 32nd Ave., Portland 15, Ore. Sold by *Lapidary Journal* at $2.00 postpaid ($2.06 in California).

This book is a combination of all that was best in two books printed by the same publishing house which are now out of print—HANDBOOK OF URANIUM MINERALS and FLUORESCENT GEMS & MINERALS. Paper bound in 80 pages and well illustrated, this book is a practical guide to the fluorescent gems and minerals and a field guide for uranium prospecting. The author, Dr. Henry C. Dake, has been publishing papers on fluorescent minerals in his MINERALOGIST MAGAZINE for twenty years and papers on uranium prospecting since the word came into popular usage. Here is the best list we have seen of all the uranium bearing and fluorescent minerals and where they come from.

* * *

LOST MINES AND BURIED TREASURES by John D. Mitchell. Published by Desert Press, Palm Desert, Calif. For sale by *Lapidary Journal* at $5.00 postpaid ($5.15 in California).

This is not a mineral or gem book but certainly one of wide interest to the mineral collector and the gem cutter. 50 stories in 240 pages of well illustrated pages by John D. Hansen with maps by Margaret Gerke. All the clues you need but you'll probably never find anything but adventure and fun in the clean fresh air of the desert Southwest. Fascinating reading and a fine gift for the rockhounding friend.

Coronado was the first—and during the 413 years since he led his armored cavaliers into the desert Southwest in quest of the fabled Seven Cities of Cibola there has been a never-ending cavalcade of treasure-seekers trekking over this great mineralized region searching for hidden wealth.

Many have found rich ores. Some found gold and silver and did not rec-

ognize the value of their discoveries. A few made their strike—and then met violent death before they could return to work their discovery claims, or became confused by the sameness of desert canyons and mountain slopes and were unable to relocate the treasure they had found.

It is of these latter men that John D. Mitchell writes—of those who for various reasons were never able to recover the wealth that almost had been within their grasp.

There is an element of mystery in all these tales—a gap in the chain of facts and circumstances which seems to defy human solution. Otherwise there would be no lost mines.

Mitchell has selected from the hundreds of legends and histories of lost mines and buried treasures bequeathed to the Southwest by its early adventurers 50 thrilling, mystery-laden tales. With the author's clues, and individual maps of approximate lost mine sites, LOST MINES AND BURIED TREASURES ALONG THE OLD FRONTIER will start many on the lost mine trail. And, who knows, some reader may himself add another chapter to this fascinating saga — a chapter entitled, "Lost Mine . . . Found."

* * *

EVOLUTION OF THE CALIFORNIA LANDSCAPE by Norman E. A. Hinds. Published by California Division of Mines, Ferry Building, San Francisco, Calif. $2.50. Not for sale by *Lapidary Journal*.

Written by an Associate Professor of Geology at the University of California, without using any abstruse geological terminology, this book is fascinating reading for anyone but particularly for California residents. Here is the book that will make any trip about the state far more interesting if it is only read and its facts retained by the reader. As someone has said in a different way—a trip without a knowledge of geology is like a visit to an art gallery where most of the pictures are turned to the wall. A visit around the state of California without the knowledge contained in this book is about the same thing. This is a big bargain in a book because the profit motive has been eliminated. Probably sold at actual cost.

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BAROQUE GEMS
Highly polished tumbled gems. Including tigereye (yellow, cherry and blue), Mexican agate in beautiful colorful bandings, New Mexico moss, rose quartz.
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MINERALS
CUTTING MATERIAL
MOJAVE DESERT GEM AND MINERAL SHOP
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P. O. Box 363 Yermo, Calif.
11 mi. E. of Barstow, 1 mi. W. of Yermo, Hwy. 91

THE PITTS STORY

(*Continued from page* 420)

with some purchases he set out to faithfully duplicate every gem pictured on the colored pages of the brochure. He then made a frame that opened like a book, with the plate on the left and the finished gemstones on the right. Authorities at the Institution were amazed at the faithfulness of the duplication of the lapidary work. Mr. Pitts' showing the work to people in every corner of the land no doubt influenced them to pioneer in the amateur gemcutting hobby that is now bringing leisure happiness to such a large number of our people. These plates and their accompanying gems are on display in our collection and of all the things we possess we prize them the highest. The Pitts display also contains many specimens of rough and finished gems, illuminated transparencies of chiastolites from Massachusetts and California, illuminated transparencies of wood, and frames of the Morgan Hill orbicular jasper and Montana agate cabochons.

It is good to be able to tell of a man's accomplishments while he can still read about them and we hope that the story of Mr. William Pitts' unselfish accomplishments will be an inspiration to the rockhound fraternity everywhere to do something for their own communities with their rocks when they are through playing with them.

Had this fine man lived in England he would long ago have been Knighted by the Crown, but we have no system of national recognition in America other than things like the Pulitzer prizes etc.; none of which recognize gemcutting as an art. Perhaps the organized gemcutting fraternity will do something someday to recognize the accomplishments of its great leaders.

In a letter to a friend, written a couple of years ago, Uncle Bill wrote, "I will be 84 in November and the night is growing near I know, but I have had my day and should not worry and try not to. When I get everything filled in I will feel that I have done what I started out to do, and let the outcome be in the hands of our Maker."

Amen, Sir Billy—Amen! !

THE KENNEDY STORY

(*Continued from page* 448)

to carve wood. By this time some of my work sold for a good price.

"I later became a mechanic, then a machinist for an aircraft company. Then followed a stretch in the Army, during which time I carved pipes at night to make my traveling and spending money.

"Then back again to the machine shop! I also taught sculpturing at a local studio and lectured on the basic principles of art.

"For several years I have been carving in gem materials and lecturing on the subject to gem and mineral clubs. I have commissioned jade carvings in New York, San Francisco, and other cities since 1950 and have won many top awards while exhibiting at shows and fairs in the Los Angeles area, the nearby desert towns, and San Diego."

* * *

STATEMENT REQUIRED BY THE ACT OF AUGUST 24, 1912, AS AMENDED BY THE ACTS OF MARCH 3, 1933, AND JULY 2, 1946 (Title 39, United States Code, Section 233) SHOWING THE OWNERSHIP, MANAGEMENT, AND CIRCULATION OF THE LAPIDARY JOURNAL published bi-monthly at Palm Desert, California, for October 1, 1953.

1. The names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher Lelande Quick, Palm Desert, California.
Editor, Same.
Managing editor, Same.
Business manager, Same.

2. The owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual member, must be given.)

Lapidary Journal, Inc., Palm Desert, Calif.
Lelande Quick, Palm Desert, Calif.
Aletah Quick, Palm Desert, Calif.

3. The known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities are: **(If there are none, so state.)**

None.

4. Paragraphs 2 and 3 include, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting; also the statements in the two paragraphs show the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner.

5. The average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the 12 months preceding the date shown above was: (This information is required from daily, weekly, semi-weekly, and triweekly newspapers only.)

LELANDE QUICK

Sworn to and subscribed before me this 5th day of October, 1953.

HECTOR C. WOOD

(My commission expires Dec. 2, 1955.)

• News of the Societies

ORANGE BELT MINERALOGICAL SOC. (San Bernardino, Calif.) heard two speakers at its first Fall meeting. William Smith gave an account of his rock collecting travels through Oregon and Washington and displayed a braggin' rock from each rock locality he visited. Col. W. J. Mills then gave a discourse on fire agate. He is reported to have the most outstanding collection of this material in existence. This material and its locality was described in the April 1952 *Journal*.

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ORANGE COAST MINERAL & LAPIDARY SOC. (Corona del Mar, Calif.) recently heard C. A. Terry of Los Angeles in a lecture on micromounts, accompanied by slides.

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CENTRAL IOWA MINERAL SOC. (Des Moines) included a very interesting supplement on the diamond in a recent issue of *News Nuggets*, the society's bulletin. This society meets in the Bible Building of Drake University on the first Friday at 7:30 and all interested rockhounds are invited to attend the society's meetings.

✡ ✡ ✡

RIO GRANDE ROCK CLUB (Rio Vista, Colo.) has established a new twist on the pot luck program. They recently held a pie night. Each lady had to bring a pie and each gentleman present had to buy a pie. As the pies were consumed a brisk rock auction was conducted. Result—swollen bellies and a swollen treasury.

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DELVERS GEM & MINERAL SOC. (Downey, Calif.) recently heard Don MacLachlan, Editor of *Gems and Minerals*, in a lecture on "Geology of the Coastal Range." A recent meeting experienced a serious let down, for the President reported in *Delvings*, the society's bulletin, that "it certainly was a shock last meeting to find the kitchen locked. Seems the sink stopped up and coffee grounds were found in the drain. As we had used the kitchen the night before we naturally were blamed."

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CLARK COUNTY GEM COLLECTORS (Las Vegas, Nev.) are planning a national rockhound Pow Wow (Bow Wow?) to be held at Boulder Dam (named after Herbert Boulder) next April.

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EL PASO GEM & MINERAL SOC. (Texas) recently celebrated the sixth anniversary of the publication of their fine bulletin *The Voice*, edited by Harry L. Zollars, whose whimsy is frequently seen in these pages. This is one of the largest, best written and most interesting publications that crosses our desk and never hits the basket until we have read it and usually filched something from it.

Many hours each month are devoted by the Editor and his wife in the securing of interesting news items and other material which goes to make a publication of which every club member may be proud, in the cutting of the stencils, the mimeographing of the 3150 copies which go into each month's Voice, the assembling, the stapling, the folding, the addressing, the stamping and the mailing, besides keeping a record of the subscriptions and addresses of members and subscribers. The Editor recently wrote — "With all this work the years as Editor have been happy ones, with the satisfaction of knowing that at all times there has been the staunch backing of the entire Society and the fact that the Voice is appreciated and popular. There has been absolutely no interference with the Editor's ideas of what should be carried in the bulletin, giving a freedom which reflects the characteristics and ability of those responsible for its success."

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NEW JERSEY MINERALOGICAL SOC. (Plainfield) made a field trip in October to Crystal Hill at Stroudsburg, Pa., for quartz crystals.

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MIAMI VALLEY MINERAL & GEM CLUB (Springfield, O.), formed in October '52, recently elected Robert J. Wening of Dayton as its second President. The Society meets the second Sunday afternoon of every month at 2 p.m. in the Y.M.C.A. at Fairborn, O., because that town is centrally located for members belonging in Columbus, Springfield, Piqua, Dayton, Cincinnati and Fairborn.

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NEWARK LAPIDARY SOC. (N. J.) witnessed the showing of a film "The Romance of Silver" at its October meeting. A discussion period followed.

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SANTA BARBARA MINERALOGICAL SOC. (Calif.) recently heard Orsino C. Smith in a lecture on mineral identification and analysis. Smith is the author of several books on the subject.

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HOLLYWOOD LAPIDARY & MINERAL SOC. (Calif.) is the new name of the former Hollywood Lapidary Society. Their program for October was given by Bev Morant, manufacturer of lapidary equipment. He told how an economical lap shop could be built piece by piece as interest grew and finances developed. The Society had a beauitful window display of their work in the Beverly Hills branch of the California Bank as publicity for their sixth annual show in October. The Society has recently put out two marvelous bulletins with silk screen covers.

✡ ✡ ✡

LAPIDARY CLUB OF WASHINGTON, D.C., recently heard Rufus Jacoby in a lecture on sterling ware. He is a noted teacher of silvercraft with emphasis on useful objects such as chalices, chandeliers, altar pieces etc.

EVERETT ROCK & GEM CLUB (Wash.) won 14 ribbons at the Northwest Federation's gem and mineral show at Portland in September.

* * *

GEM CUTTERS GUILD OF BALTIMORE reports that Dr. Frank Figge, cancer specialist at the University of Maryland recently gave a lecture on "Prospecting for Uranium." He reported that uranium is found in paying quantities in only a few locations in the world, and due to the vital importance of the mineral, no effort is being spared to get maximum production from known deposits and to locate new deposits. In order to foster exploration for uranium the U. S. Government has a standing reward for the location of suitable deposits. Dr. Figee told of his return a year or so ago to his native state of Colorado to engage in this search for Uranium. He equipped himself with a Geiger Counter, the sensing element of which he trailed along side his moving automobile. He picked up several locations, one of which turned out to be the street of the town through which he was passing. The street was paved with uranium, the local authorities having gotten their road building material from a nearby pile of tailings from a vanadium mine. Uranium was not known to exist at the time and was thrown away. The Government has since recovered this material.

* * *

WISCONSIN GEOLOGICAL SOC. (Milwaukee) had a highly interesting meeting in October when they heard Elmer Rowe Nelson, Curator of Geology at the Milwaukee Public Museum give a licture on the Story of Mountain Building. The lecture was illustrated with motion pictures.

* * *

MIAMI MINERAL & GEM SOC. (Fla.) will be hosts to the 1954 convention and show of the Eastern Federation of Mineralogical and Lapidary Societies.

* * *

CHICAGO ROCKS & MINERALS SOC. recently heard Robert W. Fine in an informative lecture on the lost wax casting method.

* * *

LOS ANGELES LAPIDARY SOC. heard member Carl Wood in a lecture on "Crystal Gazing" at their November meeting. Mr. Wood has worked out a method of projecting the actual formation of crystals by showing chemicals working via a polaroid gizmo. The lecture is reported highly instructive and entertaining.

* * *

MADRAS GEM & MINERAL SOC. (Ore.) was recently organized. It meets on the fourth Wednesday at 8:00 p.m. in the local High School.

* * *

CLINTON VALLEY GEM CUTTING SOC. is the name of a new group recently organized at Mt. Clemens, Mich., near Detroit.

* * *

SHADOW MOUNTAIN GEM & MINERAL SOC. (Palm Desert, Calif.) heard Thomas Warren at their November meeting. Mr. Warren is President of Ultra-Violet Products, Inc., makers of the *Mineralight*. His lecture was on fluorescence, of course, and he brought along many of the specimens from his prized collection, reportedly the best collection of fluorescents in the country.

* * *

CHICAGO LAPIDARY SOC. recently heard J. Lester Cunningham in a lecture on opals. Mr. Cunningham will be remembered for several striking *Journal* covers in the past.

* * *

ORANGE BELT MINERALOGICAL SOC. (San Bernardino, Calif.) is reported to have had the best show they ever have presented. We have reports that it exceeded the big Federation shows in beauty and the number of exhibits.

* * *

WEST TEXAS GEM & MINERALS SOC. (Midland) announces that the next Texas State show will be held at Odessa on May 14, 15, 16, 1954.

* * *

COMPTON GEM & MINERAL CLUB (Calif.) reports that attendance at their recent show was 2065.

* * *

Anyone interested in prospecting for uranium can send 45c to the U.S. Atomic Energy Commission for *Prospecting for Uranium*—U.S. Geol. Survey, Superintendent of Documents, U.S. Gov. Printing Office, Washington 25,

TRANSVAAL "JADE" (Verdite)—A new arrival of dark green, solid, 100% cutting material. Excellent for cabochons, slabs, spheres etc. Works easily — all solid in color. Boulders from 1 to 30 pounds.
$2.50 per pound, plus Federal Tax

EXTRA THIN DIAMOND SAW BLADES — 4¼" diameter — .015 thick. A long wearing blade highly recommended to save that precious material. This blade will stand many long hours of cutting and is the same as used by many professionals. Specify ½" or ⅝" arbor.
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The Lapidary Journal Classified Ads

RATE — 7c PER WORD PER INSERTION. MINIMUM SPACE $3.00. ADS UNDER THIS CLASSIFICATION ARE PAYABLE IN ADVANCE. CLOSING DATE AT PALM DESERT, CALIFORNIA, 8TH OF JAN.—MARCH—MAY—JULY—SEPT.—NOV. FOR FOLLOWING ISSUE. NO CHECKING COPIES OR PROOFS FURNISHED CLASSIFIED ADVERTISERS. NEW ADVERTISERS MUST SUPPLY 2 REFERENCES AND COMPLETE ADDRESSES FOR OUR FILES.

CUTTING MATERIALS

BRAZILIAN PREFORMED GEMSTONES—Citrine, amethyst, aquamarine, green beryl, precious topaz, morganite, tourmaline, rubelite, plus many others. All preformed and ready to cut flawless gems. Write for price list to JACK E. SCHUNK c/o H. Stern Lapidacao Pan-American, Avenida Rio Branco 173, 6th Floor, Rio de Janeiro, Brazil.

FOR YOUR SAWING PLEASURE—Order today, beautiful Texas agate, jasper and wood in gorgeous colors and patterns from Rio Grande Valley of Texas. 10 lbs. $8.50. Parcel post collect. Large package of agate, jasper, wood. Your choice for $5.00 Parcel post collect. Two talisman agate or jasper free with each order. "If it's from Whorton's it's got to be good." WHORTON SALES, Box 996, Donna, Texas.

MEXICAN FIRE and other opal-in-matrix ¼ lb. mine run $1.00; mixed cherry, amber etc. opal without matrix, ¼ lb. $1.00; selected opals for faceting, no fire, $1.00 per oz.; also Arkansas quartz crystals. J. W. McManus, Box 1185, Port Arthur, Texas.

GEMSTONE COLLECTORS—Stop at our Rock Corral and select your own material from one of the largest rock & mineral collections in the Southwest. Mail orders promptly filled, satisfaction guaranteed. 8 lb. of selected top grade cutting material sent postpaid for $6.00, or 50 sq. inches of selected top grade slabs postpaid for $10.00. Try our approval plan. We will send you postpaid 50 sq. inches of selected gemstone slabs, you keep all for $10 or return part with 25c per inch for what you keep. We sell Ultra-Violet Mineralights, Geiger Counters, lapidary machinery, polishing powders, crystolon grits, cement, sanding cloth, templates, wax, books etc. Write for price list. SAN FERNANDO VALLEY ROCK SHOP, 6329 Lindley Ave., Reseda, Calif.

WYOMING STALACTITIC AGATE—Choice proven eyes and unusual designs in each piece, $3.00 lb. Field run $2.00 lb. Cabochon blank with one eye 50c. Wyoming jasper, any and all colors $1.00 lb. J. O. DUGUID, Lusk, Wyo.

JADE: translucent gray-green nephrite, takes beautiful polish; clear, 5 inches $2.00; with black inclusions, 6 inches $2.00; rough, $2.50 per lb. Translucent semi-opal variant: yellow, orange, rose, red, black (colors mixed, indicate preference), 6½ to 7 hardness; easy to work, doesn't chip, takes high polish, 7 inches $2.00; rough, $1.50 per lb. Minimum order, 2 lbs. Tigereye, red or blue, 6 inches $2.00; golden, 7 inches $2.00. Plaese add 10% for postage and handling. Californians add sales tax. W. J. McPHERSON, Rt. 3, Box 6939, Rio Linda, Calif.

FROM MINNESOTA, Lake Superior agate. Beautiful, colorful, spectacular. Culled to assure good quality. Much better than field run. Half ounce to two ounce size agates in assortment numbering about 35 agates in two pound selection, only $5.00 postpaid in U. S. Half order $3.00. Prompt shipment. Satisfaction guaranteed. PALMA & ROYAL AMBUHL, 1294 E. Maynard Drive, 340, St. Paul 2, Minn.

FLORIDA agatized coral in beautiful colors and assorted sizes. Bargain assortment; 2 lbs. for $2.50 postpaid. Satisfaction guaranteed. WILLIAM KILPATRICK, 1760 19th St. South, St. Petersburg, Fla.

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1. MEXICAN AGATE—fine colors and banding, selected nodules, mixed sixes $1.75 per lb. 2. Tigereye—(a) natural blue, finest grade $2.50 per lb. (b) yellow, $1.00 per lb. (c) cherry, $1.50 per lb. (d) blue-yellow, mixed colors, $2.50 per lb. (e) a generous slab of all four types for $3.00. 3. Flame agate, brilliant red streaks in white, $1.00 per lb. rought. 4. Drilled baroque turquoise beads (Nevada) medium to large sizes 75c each. 5. Baroque tigereye Africa, miscellaneous sizes, mixed colors $5.00 per half pound. 6. Collector's lava specimen with chalcedony ball in pocket where it was formed, average weight 5 pounds per specimen, $7.50 each. 7. Colorful red-moss agate, New Mexico rough per lb. $1.00. Please send remittance including postage and 20% Federal tax, if not for resale. Your money promptly refunded if not completely satisfied. Address mail to P.O. Box 3365, El Paso, Texas, Residence address 7262 Highway 80 East. GEORGE DOTSON.

SLAB SPECIAL: 15 square inches, not trims, Oregon agate, wood, etc. $3, double amount $5. Tempskya our specialty, 50c sq. in., minimum order $1, also masses and buds. Price list available on other material. ART'S AGATE SHOP, 2820 "D" St., Baker, Ore.

WYOMING JADE, $1.00 to $3.00 per sq. in. Montana agate 30c per sq. in. Top quality Money refunded if you are not pleased. TH HERRINGS, Box 411, Aptos, Calif.

HAVE 1500 pieces of quartz, rough. OK f beginners to practice on at 25c each. Lots small crystals, translucent to opaque. Son will make gems. JAMES DESKIN, Coulterville Calif.

ARIZONA AGATE—Blue, pink, and orchid with purple predominating $1.00 each. These make beautiful cabs. No dealers. Fire agate specimen $1.00. All orders postpaid. ARLENE DIMICK, Box 1795, Clifton, Ariz.

ILLINOIS—The largest stock of cutting, polishing and specimen material—12 tons of it. Anything for the discriminating rockhound and collector. Also lapidary supplies and equipment, bezels and mounts. We also show finished specimen which will give you an idea what you can make. No list. Come early, stay late. R. HEIKE, Wenona, Ill.

DO YOU WANT FIRE OPAL—direct from Mexico? Cabochons $20.00 up. Cabochons with rock inclusions $1.00 up. Clean rough pieces opal for cabochoning, $6.00 gram. Rough cutting matrix rock gives small cabochons $1.00. Mexican agate rock (not pebbles), dark crimson, cherry, honey, salmon colors, walnut to egg size pieces, some partly crystallized, some thin banded, $3.00 pound. Lizards, fish, bees, turtles, carved from different kinds of rock, 1 inch long $1.00 each; larger sizes available. Also opal mosaics and doublets $1.00 up postpaid. THOMAS COUSEN, Apartado 61, Quaretaro, Mexico.

JASP-AGATE PREFORMS, ring stone sizes, oval or rectangular. Each stone selected for color and pattern. You will like these. No waste, ready for sanding. 60 cents each. Polished stones $1.25. Minimum order, $3.00. D. A. McLAREN, 33 Curtis St., San Francisco, Calif.

(Continued on next page)

(*Continued from preceding page*)

FOR SALE—Wyoming "moonstones;" clear, no matrix. Many can be mounted in natural state; also perfect for cutting, polishing or tumbling. Price: fifty cents each, postpaid. FEESE & FEESE, 314 S. Wilson, Casper, Wyo.

AGATES IN THE ROUGH—Wood replacements—75c lb. Mosses, red, green, pink—75c lb. Burns nodules; scenic—75 lb. Nodules; Priday, Ochoco, Pony Butte—50c lb. Plus postage. We have slices and specimen pieces. WISHING WELL AGATE SHOP, Depoe Bay, Ore.

AGATIZED CORAL — Slabbed and rough cuts from a good selection of Tampa Bay geodes. Write for prices. MAC'S ROCK PILE, 533 S. Osprey Ave., Sarasota, Fla.

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SOMETHING NEW?—YES! Free form agatized coral cabochons that will tickle your imagination $2.00 each. Tax Inc. S. S. Handmade agatized coral pin or pendant, $7.20 tax inc. Shell kits to make your own shell jewelry $3.00 P.P. 4 lbs. agatized coral $5.00 P.P. ROCK & SHELL SHOP, 2033 Red Rd., Coral Gables, Fla.

TUMBLED GEMSTONES — Retail or wholesale. Findings and chains for earrings, bracelets and necklaces. Sterling silver or gold filled. Polished spheres. Rough cutting material. For beginners — 100 labeled specimens for $5.00 plus postage. H. & C. GREEN, 4128 W. 159th St., Lawndale, Calif.

OLD MEXICO STONES—I sell ten clean 6-millimeter opals, good color cabochons, for $5.00. Common quartz, clear, smoky, mixed, good terminations, prisms one-two inches diameter up to three inches long, some twin prisms, one small group, $1.00 to $3.00. Fire opal, small matrix rocks, good colors—fire, for specimens or make tiny cabochons, $1.00. Rock specimens enclosing shattered apatite crystals, matrix partly covered tracery tiny white crystals, showy, $1.00 up. Curious specimens pure iron ore same apatite mountain $1.00. Agate-opal rock, colors: salmon, crimson, cherry, honey; sizes walnut to small orange, some faint bands, some salmon crystallized; possibly is opalized wood—I don't know. Postage paid. THOMAS COUSEN, Apartado 61, Queretaro, Mexico.

TURQUOISE FOR TEN CENTS: A dime will bring you two polished turquoise nuggets. These natural gems will make nice earrings. They are truly beautiful. If you do not agree, keep them, letting us know so we can return your money. So all may share, please order only two nuggets per rockhound. If you would like these same two nuggets set in handcrafted sterling silver, send them back to us. State if you wish pierced or screw type earrings. Only $3.90. Tax, insurance and postage included. Satisfaction guaranteed or your money refunded. Prompt service always. SEVEN BROTHERS, P.O. Box 4322, Phoenix, Ariz.

FOR SALE — Genuine imported Ceylon gems, star sapphires, tourmalines, opals, garnets, moonstones, catseyes and other semi-precious stones. Prices and quality optional. Can offer quantities of above stones (low grade) at low prices for gem and lapidary school practice. C. C. BENNETT, Export-Import, Marlboro Rd. 1, Alliance, Ohio.

MISCELLANEOUS

EDIBLE DESERT GEMS—Dates grown in deep virgin soil of an ancient sea bed. Perfect for supplying quick energy to rockhounds on field trips. Rich in many vital protective minerals and vitamins. $1\frac{3}{4}$ lbs. Desert Nuggets $1.00; 5 lbs. Family Special $2.75; 5 lbs. choicer dates $3.50; 10 lbs. Semi-dry $4.75; 15 lbs. Chewy Natural $6.90. Delivered cheapest way. LEE ANDERSON'S COVALDA DATE CO. (Grower, Packer, Shipper). Hiway 99 at Coachella, Calif., P.O. Box 208J.

FRANKLIN, N. J. zinc ore is world famous for its spectacular short wave fluorescent beauty. Real live colors, bright even under the weakest of lamps, are solidly shaded and patterned, dotted, streaked, etc. to give you as fine a collection as money can buy. If you haven't seen Franklins yet you are in for a brilliant show. These are not idle words. Unsolicited customers' testimonials and our unconditional money back guranatee make Franklins a safe buy. Each stone is individually wrapped. If you prefer large stones please mention it in your order. Bargain 15 pound package for $8.00. Immediate delivery. GARDEN STATE MINERALS, 332 Columbia Blvd., Wood Ridge, N. J.

KODACHROME COLOR SLIDES—2 x 2 of Oregon and Western agates, sagenite, plume, clarno fossil nuts, etc. Expert photography. Sell or rent for club programs. Agate, thundereggs, wood, limbs, slabs, fossil nuts, to sell. THOMAS J. BONES, 2713 Rossiter Lane, Vancouver, Wash.

ILLINOIS ROCKHOUNDS are on the increase. You will be happy to call on me with your problems. I want to let you Illinois folks know that I am stocking equipment for stone cutting and polishing. I teach you how to use it and what it will do. I show you my own equipment. Make your own jewelry. We have a fine lay out of rings, pendants, bracelets, brooches, earwires, fountain pen sets, neck tie clasps; a good assortment for you and the lady. Come and see my vast display; none better. Come early, stay late; or come late, stay early. I have some 12 tons of material for you to select from. Come and see me. See for yourself. No finer cabinet specimens anywhere. R. HEIKE, Wenona, Ill.

RARE ROCK COLLECTION — Mostly polished, museum quality; many not now obtainable. Precious, semi-precious, many fire opals, jade, onyx, tigereye. Over 40 lbs., fluorescents. Mineralamp, ultra-violet lamp. Duplicates; could be divided. Sacrifice if purchased entirely. MINNIE BERNARD, Ethel, Wash.

OPPORTUNITY—Complete stock, beautiful mineral specimens. Thousands from Arizona, New Mexico, Mexico and other places. $1500 takes all. Equipment if desired, no junk. They will retail for 50c to $20 each. ANN RUTLEDGE, No. 1 Tucson Terrace, Tucson, Ariz.

CUSTOM CUTTING AND POLISHING, (cabochons only), also slabbing. MANITOU ROCK & MINERAL SHOP, 731 Manitou Ave., Manitou Springs, Colo.

WILL TRADE baby chicks for good cutting material and specimens. Write D. A. HAYES, 435 W. Lawrence Ave., Springfield, Ill.

TONOPAH, NEVADA is where C. C. Boak lives, with his outstanding, scientific, world-wide collection of Mineral, Gem and Semi-Gemstone species—fluorescents, fluorescent rock pictures, etc. Visitors welcome. C. C. BOAK, 511 Ellist St., Tonopah, Nev.

SEMI-PRECIOUS STONE engraving, encrusting, and drilling lodge emblems, ranch brands, monograms, initials, military insignias, college emblems, Greek letters, family crests—all inlaid on your stone in 24 karat gold. BRAUNFELD & MEHLMAN, Encrusters, Lapidaries, Drillers—108 Fulton St., New York 38, N. Y.

FINE AGATES—Golden moss, banded and some with carnelian from N.M.—$1.00 lb. Escadillo agate, colorful Arizona wood, Baker Ranch eggs, specimen chrysocolla, beautiful red jasper—all at 75c lb. 5 lb. selection—$3.75. 10 lbs.—$7.00. Please include postage. SEQUOIA ROCK SHOP, 414 W. Race St., Visalia, Calif.

DINOSAUR BONE — Gem quality for beautiful cabs, spheres, etc. Colorful agatized, jasperized and opalized bone—50c lb. Also have unique red lace agate for your choice displays—$1 lb. All orders postage extra. E. K. STEPHEN, Route 2, Grand Junction, Colo.

FOR SALE—New Mexico's finest red calcite; fluoresces strawberry red under short wave lamp. Rattlesnake calcite; fluoresces pink; phosphoresces blue under short wave lamp, $1.20 per lb., postpaid or $75.00 per hundred freight paid. Satisfaction guaranteed or money refunded. TOM ELLIS, Rt. 2 Box 492, Waco, Texas.

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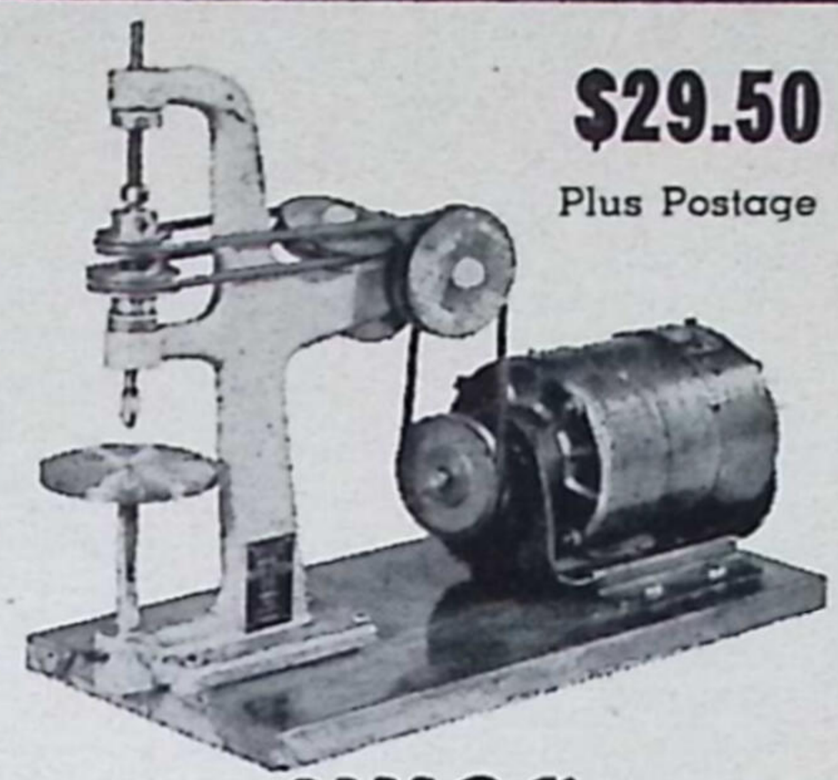
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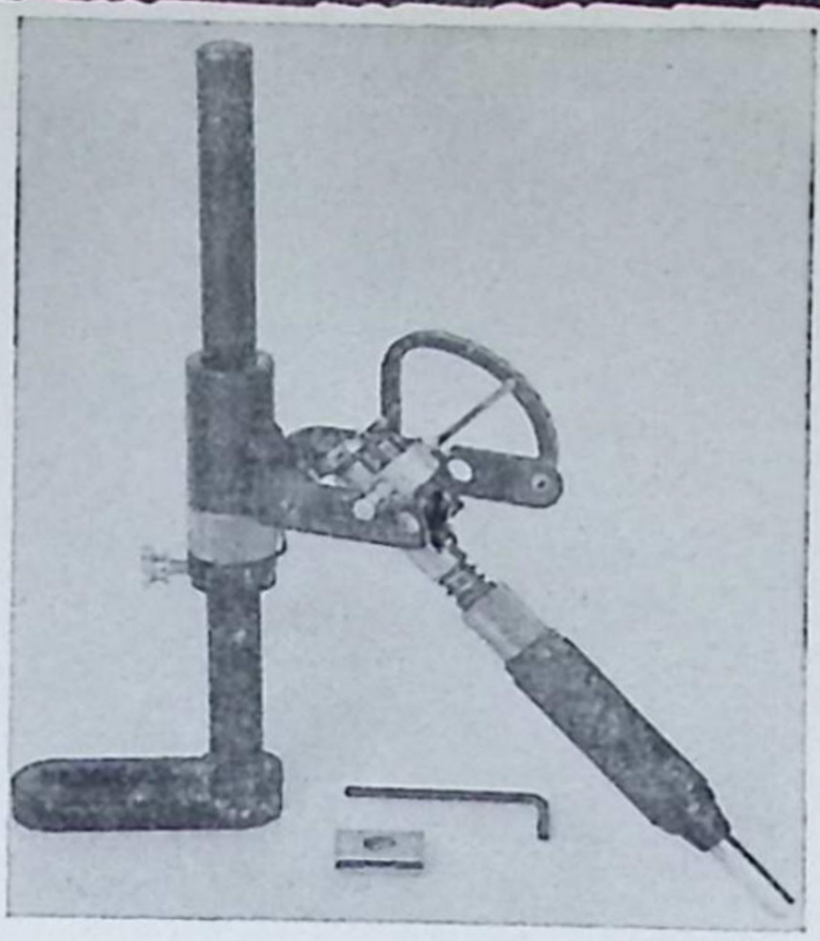
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