

Tom T. Morgan
4306 North 26th Street
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DECEMBER, 1951

The
Lapidary
Journal



MAIYA'S DOLL
Surrounded with Amber
Cut by her father, RICHARD RUBENIS

A National Magazine for

GEM CUTTERS • COLLECTORS • JEWELRY CRAFTSMEN

VOLUME 5

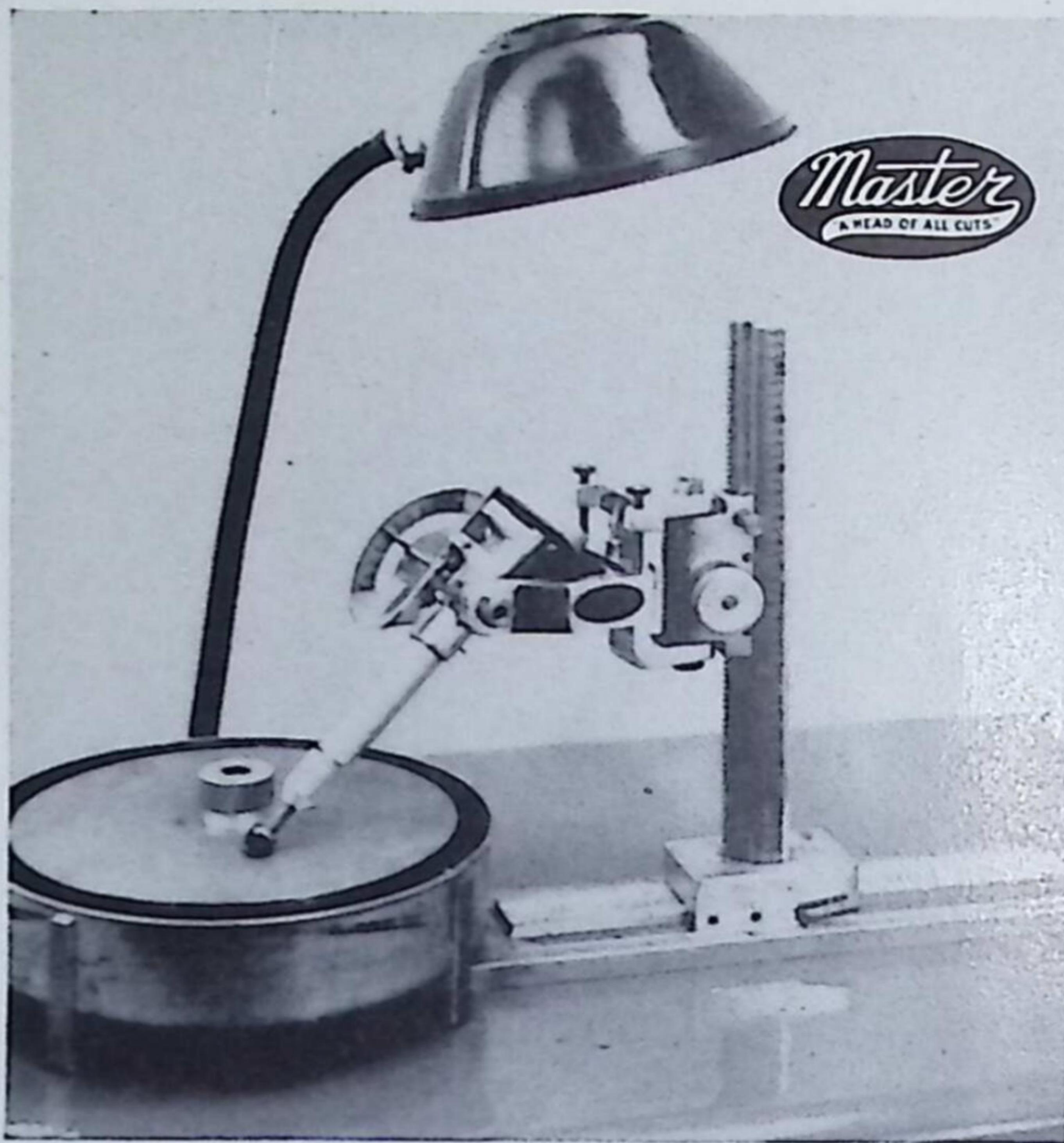
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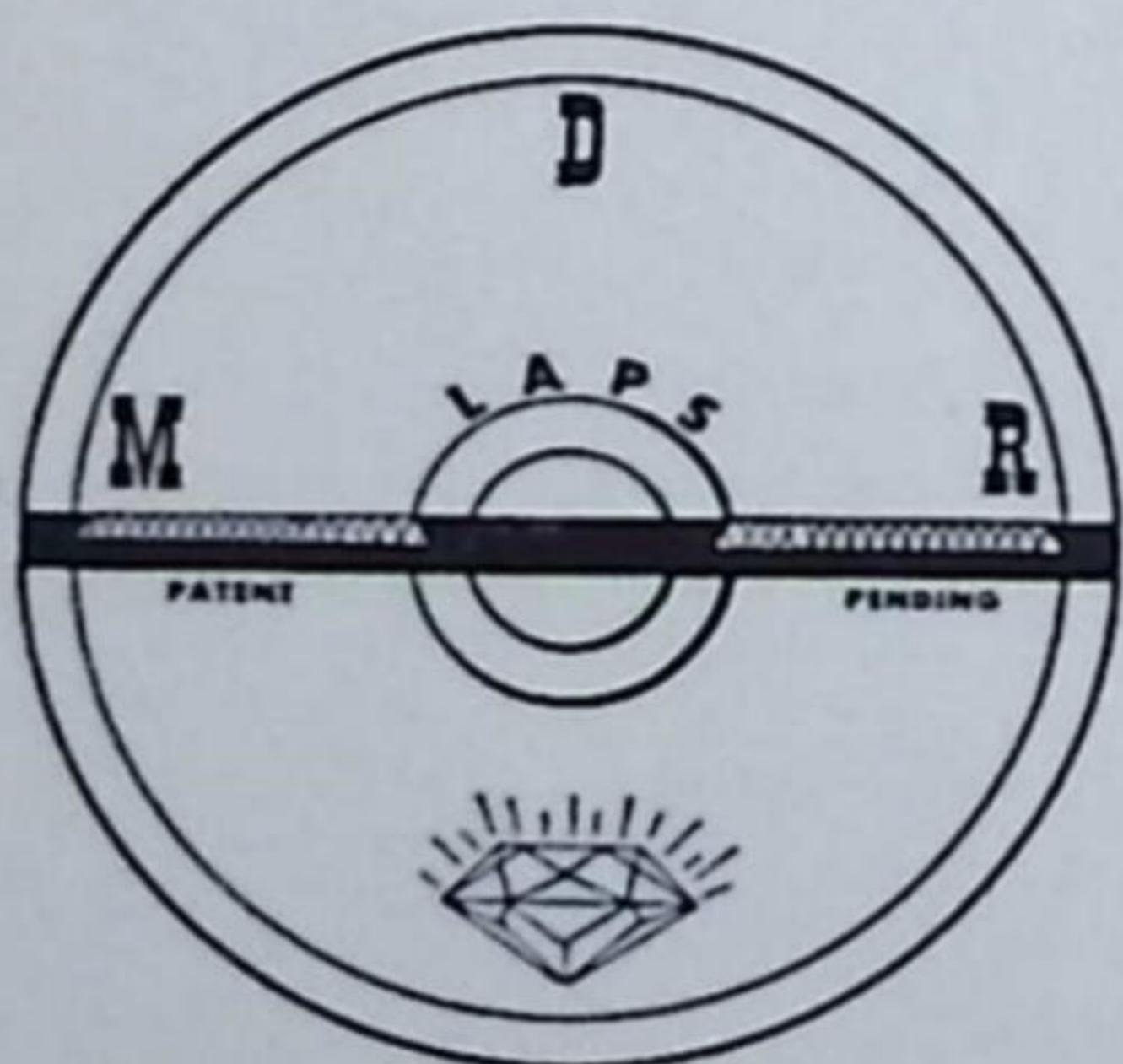
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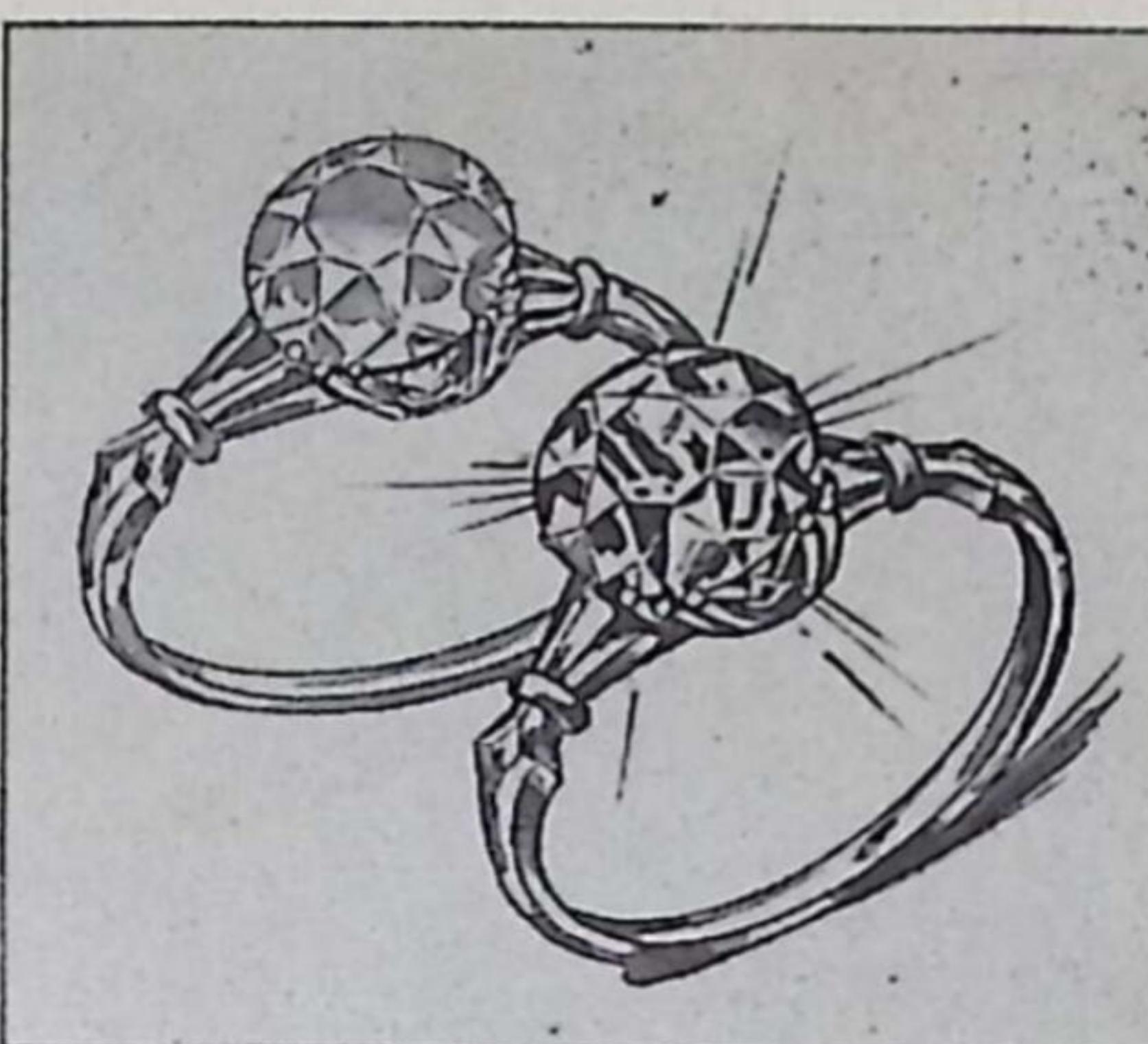
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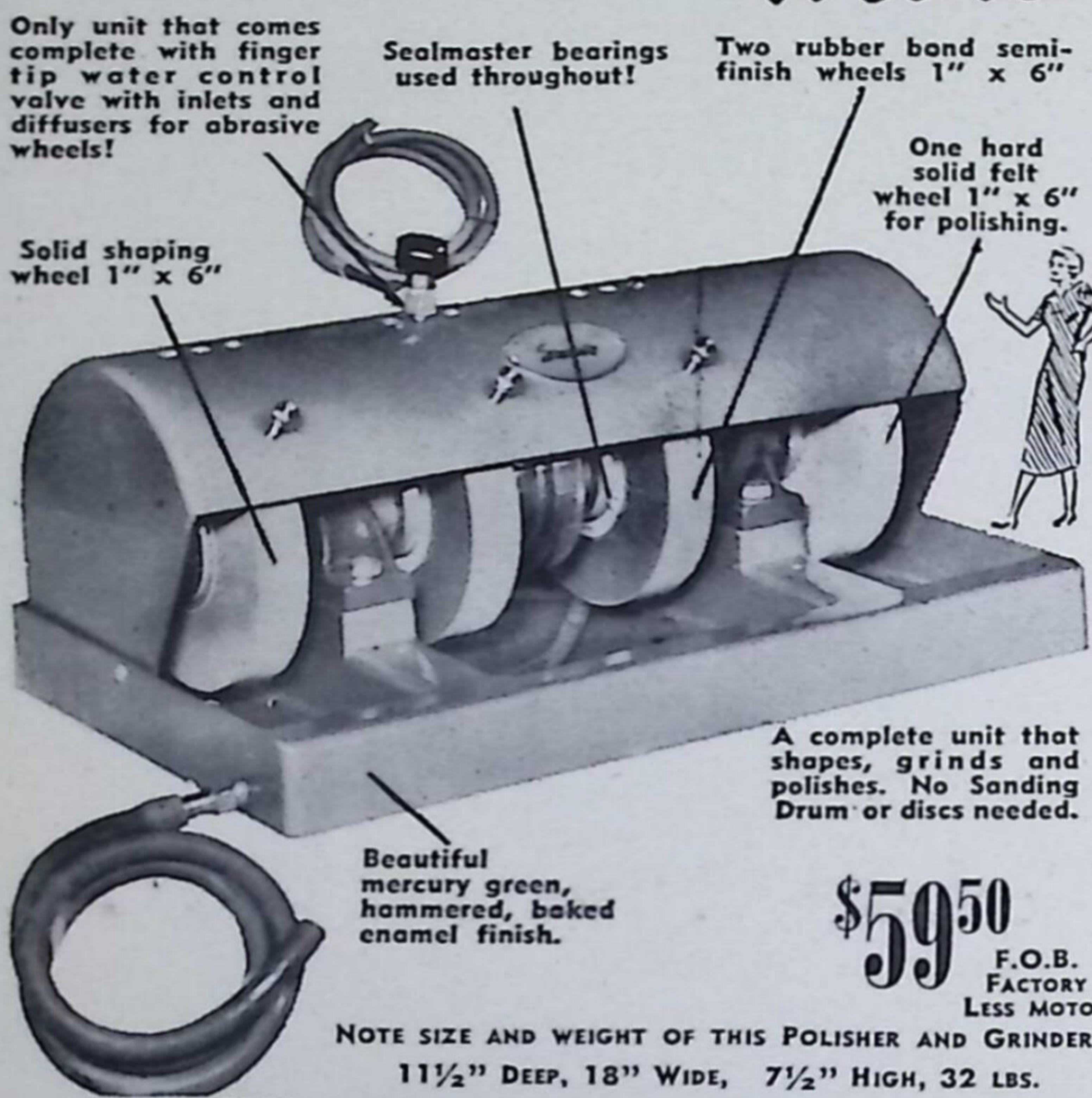
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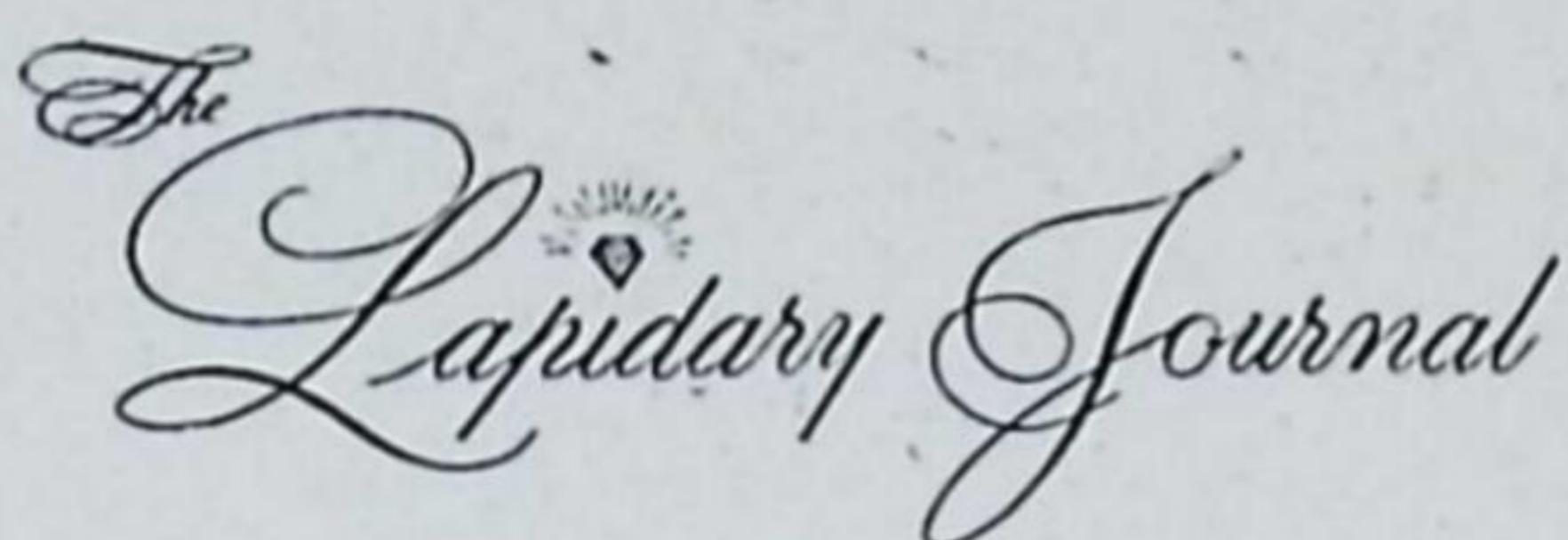
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for
THE GEM CUTTER, COLLECTOR
AND JEWELRY CRAFTSMAN

TWENTY-SEVENTH ISSUE

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◆ *Amber Is the Sun Gem*

By MABEL C. OLSON

418 N. W. Albemarle Terrace, Portland 10, Oregon

Here is the story of an Old World craftsman in amber, a gem rarely seen in any amateur's collection. It was the most highly regarded gem in the world at one time for it was the journeyings of the Romans to the shores of the Baltic Sea for amber that started the Roman conquest of Europe. Here is an account of the working of amber that is quite different from anything in the mineral and gem books.

"Pearls are tears, it is often said. Diamonds have left many pages of crime and tragedy in the world's history. But amber is the happiness gem, the sun stone."

So says Richard Rubenis, 1544 N. E. 24th Ave., Portland, Oregon, whose greatest pleasure is carving unusual jewelry of amber. He, his wife, Arya, and their daughter, Maiya, came to Portland in November, 1949 from Riga, Latvia, via Germany. Among the most treasured possessions surviving their exile is a part of Rubenis' collection of amber, gathered along 340 miles of Baltic coastline. He believes that amber rings good luck to those in whom it finds worth, and is confident that the Russians will not find the greater part of his collection, buried in Latvia before he left.

"It is not, you understand, luck for those who are evil. It responds to the nature of its owner, and will love those who have love in their hearts. I have made jewelry for some who were not good people. A man in Germany paid me 3000 marks for one piece, but he lost it; it would not stay with him. And a woman from New York came to me three times to repair a pin I made for her, complaining angrily. She had no love for it and gave it no care, cramming many pieces together in a box. It is a soft stone and should be handled accordingly. Wrapping it in suede is good.

"It is a warm stone. This piece has not been in my hand, to take warmth from my flesh, yet it has no feeling of coldness such as you find in agate. The glow it gives is like that of the sun, not like the icy glint of the diamond."

Amber, in the strict sense, is not a stone. It is a fossil resin exuded by a species of pine tree now extinct. There

is, therefore, no new amber. The forests producing it grew along the Baltic in a warm climate unlike that of today, and for some reason the trees threw off great quantities of resin. Glaciers of the Ice Age and the seas carried the fossilized form of this resin over a large territory.

Always irregular in shape, it is never found in crystal form nor in pieces bounded by plane surfaces. It will burn in match or candle flame, and softens at low temperature. Ancient people believed it had magic qualities, because it becomes negatively charged by the friction of cloth, taking an opposite charge to that of the diamond.

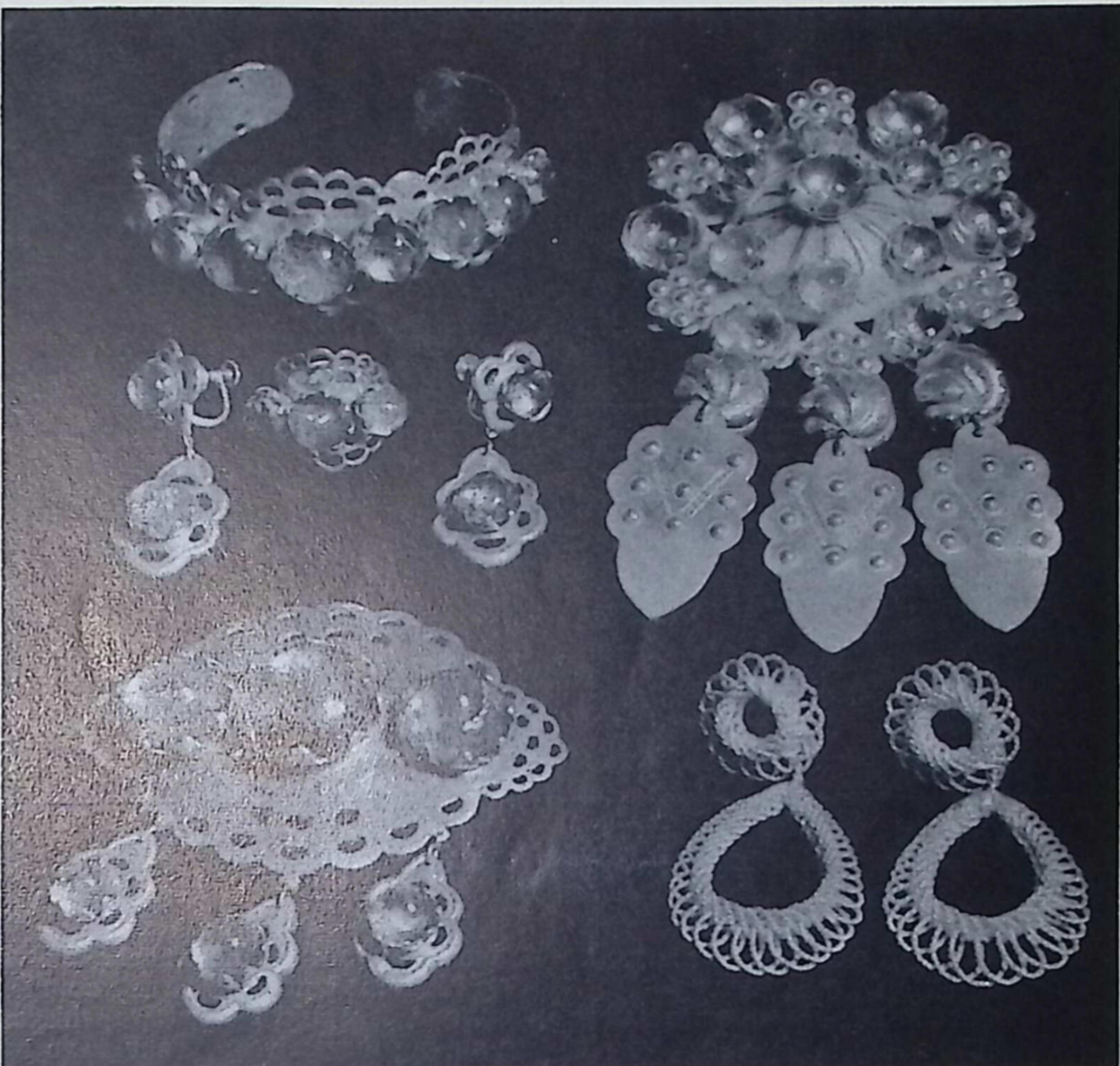
The luster is greasy. Amber may be clear and transparent, cloudy and translucent, opaque, or opalescent. Some light tones resemble ivory.

Yellow is the commonest color and it comes in all shades from the palest yellow to very dark. Red amber is common in Sicily, brown in Rumania, and yellow in Burma. Light amber may darken with age and become reddish or brownish red.

"There are 70 shades of amber," Rubenis said, "from water white to almost black. In some you can see blue veining intermingled with other colors. Then there is green—rare and very valuable. Some pieces have blue or green fluorescence.

"It is as old as any mineral found by archeologists, dating to the age of dinosaurs, from two to ten million years ago. King Tut's coffin, as shown in pictures I have, was made of amber and it weighed 200 pounds. In Latvia scientists have excavated in ancient cemeteries to discover amber jewels they reckon to be 2000 years old."

Beads made of it were once a medium of exchange. The name amber is from



In this matched set and on other piece, Rubenis combines silver and amber cabochons.

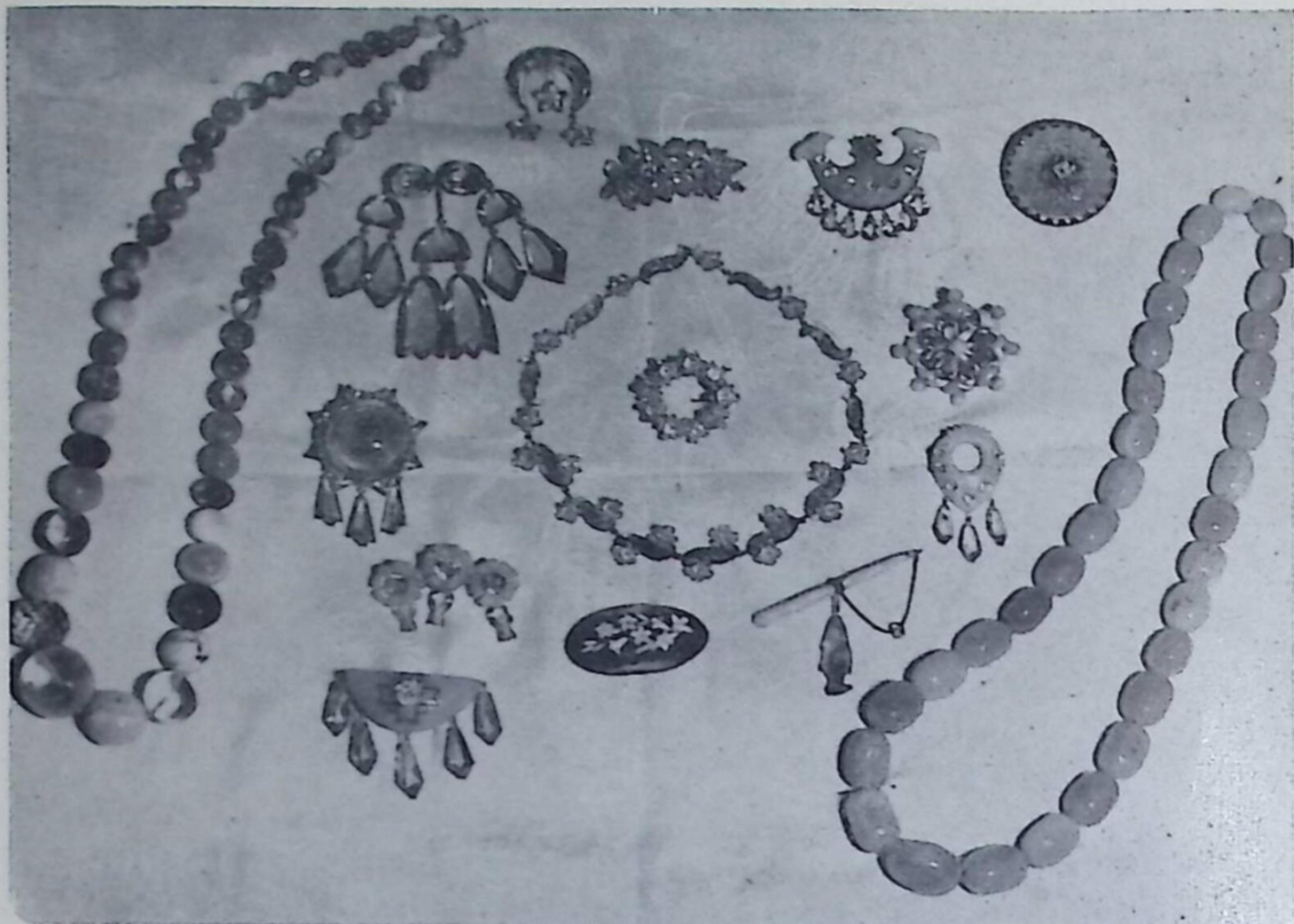
the Arabic; Persians called it "karuba." Belief was held by the ancients that amber necklaces were a cure for goiter and other throat disorders; some modern people still have faith in its medicinal properties. Romans believed pendants of amber would safeguard the wearer from witchcraft, and they paid large sums for it. English goldsmiths of an early day used it for beads and amulets. Rosaries of the Middle Ages were often of amber.

"I was 21 when I started collecting," Rubenis continued. "I lived with a relative, an old lady, and often accompanied her to jewelry shops, where she would be ecstatic over the amber. One Christmas I bought her some, and was taken aback when she exclaimed: 'Do you know what you gave me? A fly that is maybe 10,000 years old!'

"Sure enough, there was a fly in the amber. I went back to ask the jeweler if he had any more with flies or bugs. I bought many pieces, spending much money to begin my collection. You can see leaves, ants, clams, and many other enclosures; some tiny, some larger. There are species now extinct. Thus amber teaches us about life in prehistoric times. Amber such as this is the most valuable.

"Here is a piece in which you see brown streakings in the yellow; it is wood. Again, amber has bits of fur from animals that got against the resin as it came from the tree.

"Sometimes there is a big storm along the Baltic coast. The next day, when the sea is once more calm, people go early in the morning at low tide to see what they can find. Often there is a



Variations of sun and moon designs, combinations of moon and star, flowers, and fish. One necklace combines opaque and transparent amber of many shades. Some brooches are engraved.

treasure in amber, wrapped in seaweed. I have bought it from fishermen.

"Sea amber is usually in quite small chips. I have some large pieces which I hoard carefully."

Until a century ago, sea amber was the only kind known. Now there is pit amber—mined from open pits by dredges and steam shovels, which work marine sand known as "blue earth."

In the centers of Germany, where amber articles are manufactured, it is the practice to combine small pieces by heating to a temperature of 170 to 200 degrees Centigrade, then pressing. Pressed amber is not as clear nor as brilliant as the natural. None of Ruben's collection is this type. In his Latvian home the synthetic, or contrived, had no place.

"If my people could, they had real gems wrought with silver or gold as jewelry, and marble or bronze for statuary. When they could not afford these, they used wood. It, too, can create works of art. But imitation stones—No!"

"It is true that, in making the silver

coffee service for our home here, I silver plated it, as is permitted in this country. In Latvia, it would set visitors whispering among themselves: 'They have not the solid silver, only plated.'

"Amber, like other gems, has imitations, such as bakelite and other plastics, copal, and glass. You can know the real amber by several tests. See, I use the file to shave off dust from the edge of this raw piece, so you can smell the pitchy aroma. Again, I hit it lightly against my teeth, and know it as amber by the sound of the click. Amber is a non-conductor of heat, so it feels warm in the hand, very different from its imitations. Its weight is light, its specific gravity little greater than that of water, and it will float in a solution of four teaspoons of salt to a tumbler of water.

"When manufactured by machinery, it is sometimes artificially colored. That is not art. I once removed coloring from some which had been stained a shade of brown not common to amber. The owner was much pleased when I scraped off the outer coating to lay bare the natural yellow. Such coloring, fortun-

ately, does not penetrate the amber.

"After I had gathered amber for a while, I decided I must do something with my collection and I began to carve jewelry. I still have my first work, a pair of cuff links, on which I copied a Latvian symbol. In most of it I have followed old patterns of my country. I visited excavations and studied the jewels found there."

Rubenis has a book in which he sketched in color many of the symbolic designs. Drawn from memory, they are exquisitely done, a work of art in themselves. To augment them, he has books published on the subject, invaluable to him in his demand for the authentic.

"The Sun symbol, Mara, is found in all Latvian handicraft," he explained. "It is the woman's symbol. Archaeologists have unearthed it in mounds they believe are 10,000 years old. Tracing it through the centuries, one can watch it develop from the simplest forms into more intricate patterns. It began as stripes and points, the number having definite meaning.

"Laima, the moon symbol and reserved for the man, is not used as freely. It is entirely different from the crescent of Turkish and Asiatic artisans. Not an exact representation of the moon in any of its phases, it is stylized. There are many versions of it, just as there are of the sun symbol. Combinations of heavenly bodies, such as the moon and morning star, are also used.

"In Germany we lived in a valley tightly enclosed by two mountains. They oppressed me; I felt hemmed in. So when I carved a jewel representing the tree of life, I grew the tree from a valley between two mountains." A beautiful carving this, with, as Mrs. Rubenis explains, the tree and its leaves and fruit raised in relief on the large amber brooch.

"Here I have a pin representing the goddess Humis who lives in grain. It was the custom for the lady of the house to go into the field and gather two stalks of grain. These she would take home. Then there would be feasting in honor of Humis. The pin shows two stalks of grain with the stems crossed. Even before Christ, all Latvian gods were good. God was in the home; the fields were God."

Although most of his pieces are made for his wife, Rubenis has not forgotten



Richard Rubenis carves amber with historical symbols of his native Latvia. His hobby of creating jewelry from it ties in with his work as a silversmith.

Maiya. In Germany they bought her a doll of *papier mache* that is not in itself out of the ordinary, but its costuming makes a doll collector's mouth water. Mrs. Rubenis designed the dress and the crown-like hat to represent a national costume that is 200 to 400 years old, and Rubenis carved amber jewels for a brooch and to trim the hat. Maiya's doll appears on the cover of this issue.

"Our country," Rubenis continued, "has existed 4000 years. It has its special culture and motifs. Each sign and stripe on the costume has its meaning that can be read like a story by our people. We have kept several books picturing and telling of these and which parts of the country uses each. It is as though Oregon and Washington had its particular ornaments. Should an unknowing person mix them, the beholder would say: 'Oh ho, you have a Washington symbol here.' So the craftsman must use care. He must know, too, which patterns may be used in woodcarving but not in amber. Custom decides this, not esthetics."

A labor of love was the making of an amber portiere for their Riga home.

He spent seven hours a day for one year carving its 3400 pieces, which together weighed 20 pounds. Conceive, then, the amount of patient work involved in drilling holes in each carving. Not all were round pieces; some were filed in other shapes.

"I cannot express the effect of light hitting the amber, which was different shades of yellow. It was like rainbow glints, although that does not picture it exactly. Showing it at one time, we closed off all light coming from other sources, then used a spotlight. Its beauty was indescribable."



This picture was taken in Riga before the war. It shows Mrs. Rubenis and the amber portiere, made of 3400 pieces, which required a year's work.

Pictures of the gracious home the family were fortunate to take with them, as well as silver spoons which Rubenis later melted for jewelry, and a quantity of unpolished amber. Little else remained to them from the treasures gathered by the home-loving couple. "All this we lost in one night.

"We were five years in Germany, but

it was never home to us. But America from the first day has been. I find nothing I would change—all is good. People have happy faces; you do not know what it is to be where all mouths have the droop of sadness and hopelessness. You say you may not be serious enough, but I find that good. Live for today, and leave yesterday's worries behind. That I cannot yet do; I still have dreams. Out of Latvia came only 120,000 people, from a population of 2,000,000. The rest were victims of the wrong neighbors."

One lovely carving in his collection is cameo cut, and was made in the extremity of their need. "It is a representation of Mary and Jesus. We held it and prayed: 'God, us help.'"

Rubenis has also carved statuettes and little animal figures, such as the elephant that seems to have life. Asked whether he plans to do more of that work, he hesitantly answers: "Yes. But where in Latvia I had much amber to carve as ideas came to me, here I have left such a small store of sufficient size that I must study much before choosing my subject."

The amber itself has a voice in its fashioning. As Mrs. Rubenis puts it, "He turns it this way and that, and looks and looks before it comes to him what he shall do."

He added—"I study to see what I can take out, and what I must not lose. In some there are the insects or leaves; I must carve to show them in the best way." He shows an uncut piece. "There is a fish," referring to the general outline.

One magnificent specimen, quite large, is two-toned—an orange section emitting fire, the other a paler yellow. "A lady told me that if anything happened to me, she hoped it would fall to her lot. She knew that I would not willingly give it up." In mounting this as a brooch, he left the outline irregular, so that none of the wonder of the amber should be lost.

Another beautiful piece owes its charm to his carving. A miniature vase holding tiny flowers, it was a "displaced person's" wedding anniversary gift to his wife at a time when he was unable to give real flowers.

"In an exhibition in Stuttgart, I showed a statue that led people to ask:

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'Why do you have one man ride two horses?' I told them it is the old Latvian representation of God. In Heidelberg I put on an exhibit in the American servicemen's club. These showings drew people who came from many parts of the world.

"My jewelry has gone all over the world, too. I have given many pieces to those in high places. King Farouk's bodyguard admired my work, particularly one piece. 'That,' he said, 'I'd like for my king.'

"'No,' I told him, 'that is for you. I give you another one for the king.'

"At another time the Japanese consul said to me: 'Emperor Hirohito has a big collection of minerals. I'd like to buy amber for him.' I gave him 34 pieces. When he asked their cost, I told him it would be nothing. He bought enough other pieces, however, so I could get with the sum a good case to enclose my collection. I have a picture of it, but that is all that is left to us of it. Now when I wish to display my work, I lay it out on purple velvet.

"In appreciation for what Mrs. Eleanor Roosevelt did for my country, I presented her with a pin in which I carved the word Latvia and the Latvian flag. Whether or not Latvia should return under the rule of Russia depended upon the vote of two people, so close was the decision. She used her influence, and talked to these two in favor of my country. My people are most grateful to her."

The family's stay in Germany was not without benefit to them. For there Rubenis learned the trade of silversmithing, work which dovetails with his hobby. Since coming to Portland, he has been employed by the Northwest Silversmiths. He does some of the metal work on his jewelry at the shop, and some at home, where he also has tools for shaping it.

Many people in Germany and Latvia, both of which do much amber work, have told him that his method of carving is unique. Cabochon cutting is the traditional way to handle amber. Because of the softness of the material, it is the easiest method. It is used in factories where machines turn out amber articles. So he designs his pieces to show that they are hand-crafted. When making a necklace, for example, he may cut some beads oval; some may have a generally oval form, but angled at the

ends; some are faceted, these alone being cut by machine. Always his aim is to make the most of the inherent beauty and to bring out the latent fire which few credit to amber. Never does he try for the easiest way.

"Without love for amber, and patience to do my best with it, I could create nothing worthwhile. It is all in the eyes and how they see this gem material.



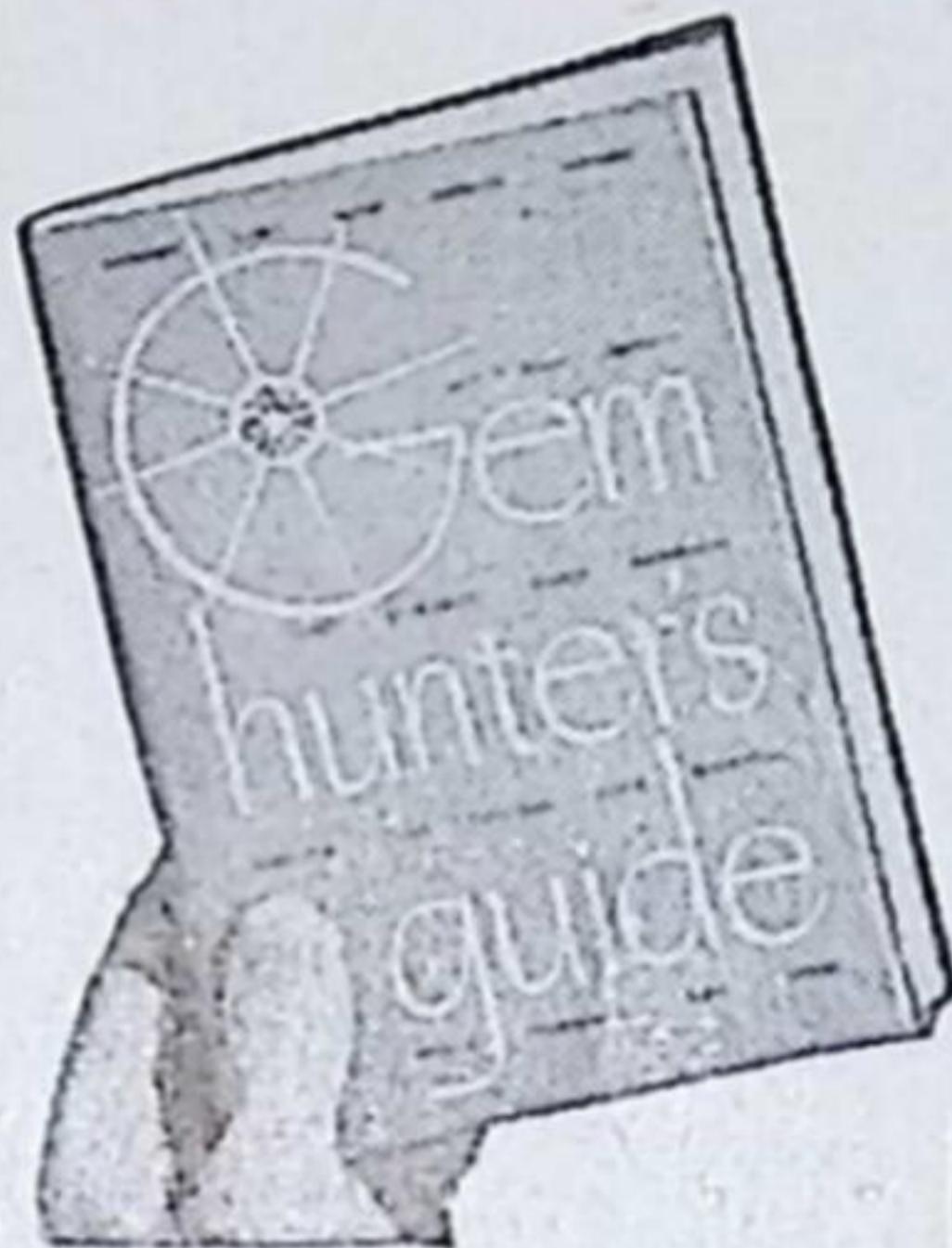
Rubenis also uses silver to copy old Latvian designs. The intertwining of large and small loops in this set means, he says, "big and little shall work together." All photos in this article except the second and fourth, taken by Les T. Ordeman of the "Oregon Journal."

"Hardness of pieces varies considerably. When I plan a more difficult cutting, I select a specimen that shows a rough and pitchy surface, knowing that it will not break easily. Although amber is not very brittle, in spite of its softness, I do things with it that makes choosing of the raw stone important.

"This selection is the first step in making the jewelry. Since my supply is now limited, I do not hurry it. In Latvia, where I had 250 pounds of amber, it was different.

"Having chosen by size, color, shape, and hardness, I split the piece with a handsaw. Some pieces I can split with

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shears. In manufacturing centers electric saws are used."

A scalpel does the initial cutting. Most important tools, however, are files in many sizes. He uses first one with quite coarse teeth, and advances to one that is very fine. Sandpaper is also employed in the same manner, progressing from coarse to fine. Polishing is done with amber dust. Final finishing is a rubbing with turpentine, to remove any loose particles of amber from the carving.

A drill, lubricated with turpentine, bores holes in beads for necklaces. It also starts a path for the gold or silver wires he screws into several cut pieces to combine them for a brooch, necklace, or earring, in such a way that the front of the piece shows no evidence of the wire. This is a tricky process, undertaken as far as he knows by no other worker in amber. Great patience and care are needed to avoid breaking amber or fine wire.

He sometimes uses silversmith's tools to engrave tree and other designs on lemon-colored amber. In some the grav- ing is only at the outer edge of the design, and the rest is carved with knife and file. It is as though the amber recognizes his deep feeling for it, and responds with pliancy, grace, and delicacy.

"When I try a big work I resent interruptions. It does not do to be nervous; then I break what I handle. When such a mood comes, I put my amber away for another time. Usually I do not feel this way I can come home tired from my day's work, then work again with amber until one in the morning and be rested."

Cutting amber as for a diamond is a favored method with him. Some have a table cut, like one planned for the center of a jewelry piece. Pendants are often trapeze cut or cut-corner triangle.

An exciting piece of deep yellow is cut as for a brooch, but is not mounted. It is many-faceted, like a rose-cut diamond with the terminal point low. You look at it from the pavilion, Rubenis insists, in order to see the fire the cutting brings out.

Faceting is done on a sandstone wheel, and is the only use of machinery in his work. For all other forms, (round, oval, and triangular), he depends upon his eye to guide him. It is exceptionally true, judging by the perfect formations.

Some stones for ring mountings are banded, with a streaking of lemon yellow across deeper yellow. These, he said, are rare. So are some specimens in which are blue markings in light yellow. A lovely piece is light yellow, shading to rich brownish tone at the base of the carving. "That is a tulip," he said, referring to its shape.

An amusing concept is a group of charms joined to form a lapel ornament. "Those are Dutch cloppen," he said with a smile. The little shoes are pale yellow, with the openings drilled out. In the main, Rubenis takes his amber seriously, but these show he has fun with it, too.

His current project is carving earrings to match a beautiful flower necklace. They will be completed in time for Mrs. Rubenis' birthday. His sketch shows that they will be pendants carrying out the detail of the necklace, in which carvings of alternate light and dark yellow flowers are wired to form the short strand.

(Persons who have been discouraged from carving gemstones because of their hardness are urged to give amber a trial. Because of its softness amber should be ideal—if you can get some. This suggestion is like our favorite recipe for cooking elephant, which begins with the advice—"first, catch one elephant . . ." —Ed.)



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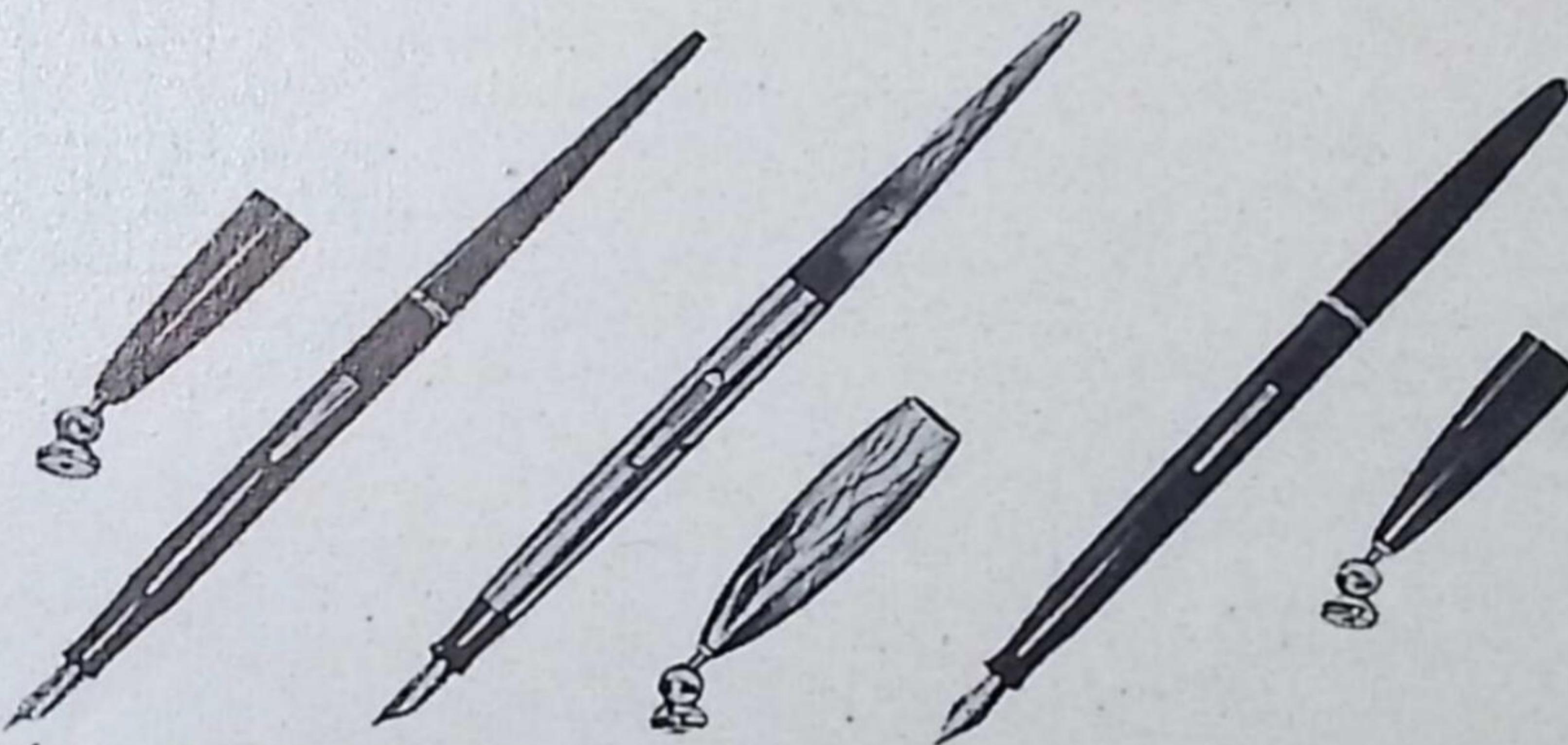
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◆ How to Make Jade and Agate Rings

By HELEN STILES BURTON
1635 Mason St., San Francisco, California

Here is the method of making the fine jade and agate rings produced in the lapidary classes at Galileo High School in San Francisco. These rings have caused wide comment and admiration in that area and they are an excellent class project.

A few weeks before the end of the school term in June, 1951, the Adult Education lapidary classes in San Francisco's *Galileo High School* saw the final installment of motors and machinery that meant advanced work in the making of jade rings. William Meader, the instructor, had planned the simplest sort of instructions that, with a minimum of work, would produce a professional looking jade ring.

He explained, first of all, why he suggested jade. "All materials will not make good rings," he said. "Jade's toughness or ability to resist shock makes it the most practical stone for rings." Some gem material that is pretty or even beautiful and desirable to a prospective ring-maker is full of hazards, and the shattering of a ring on the first try is full of heartaches.

Start with a piece of material 1 to $1\frac{1}{4}$ inches square and 3 to 5 sixteenths inches thick, depending on how wide you want the finished ring. This square should be lapped on both sides before it is ready for the jig. The Galileo lapidary classes have a specially built jig, designed by Mr. Meader, which holds the stone in place while drilling the ring hole. The drilling is done with a diamond-charged circular cutter operating at about 2500 R.P.M. in a coolant of soluble oil in water. After each operation the coolant is drained and all parts of the jig are thoroughly cleaned. It is especially important to remove all traces of grit so that the next operator can have a clear, clean field for working.

There are drills for class use that are $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{8}$, 1, $1\frac{1}{8}$ and $1\frac{1}{4}$ inches in diameter. Any size between, or larger, must be reamed out.

The handle that controls the plunging of the drill is at the right side of the jig. When cutting through the ring blank

be very careful not to ruin the cutter by cutting into the steel bottom of the jig. In order to avoid this, adjust the depth lock-nuts so that the cutter, when operating, will just barely tick the bottom of the jig. The ring blank should then be placed in the jig. Clamp it securely in place and fill the jig with coolant. Turn on the power and slowly let the whirling cutter down on the material and then pull it up. *Gentle pressure must be used.* It is better to operate slowly than to break a stone on the first trial. Pushing creates terrific heat and despite the coolant, quick and frequent bearing down will shatter the stone.

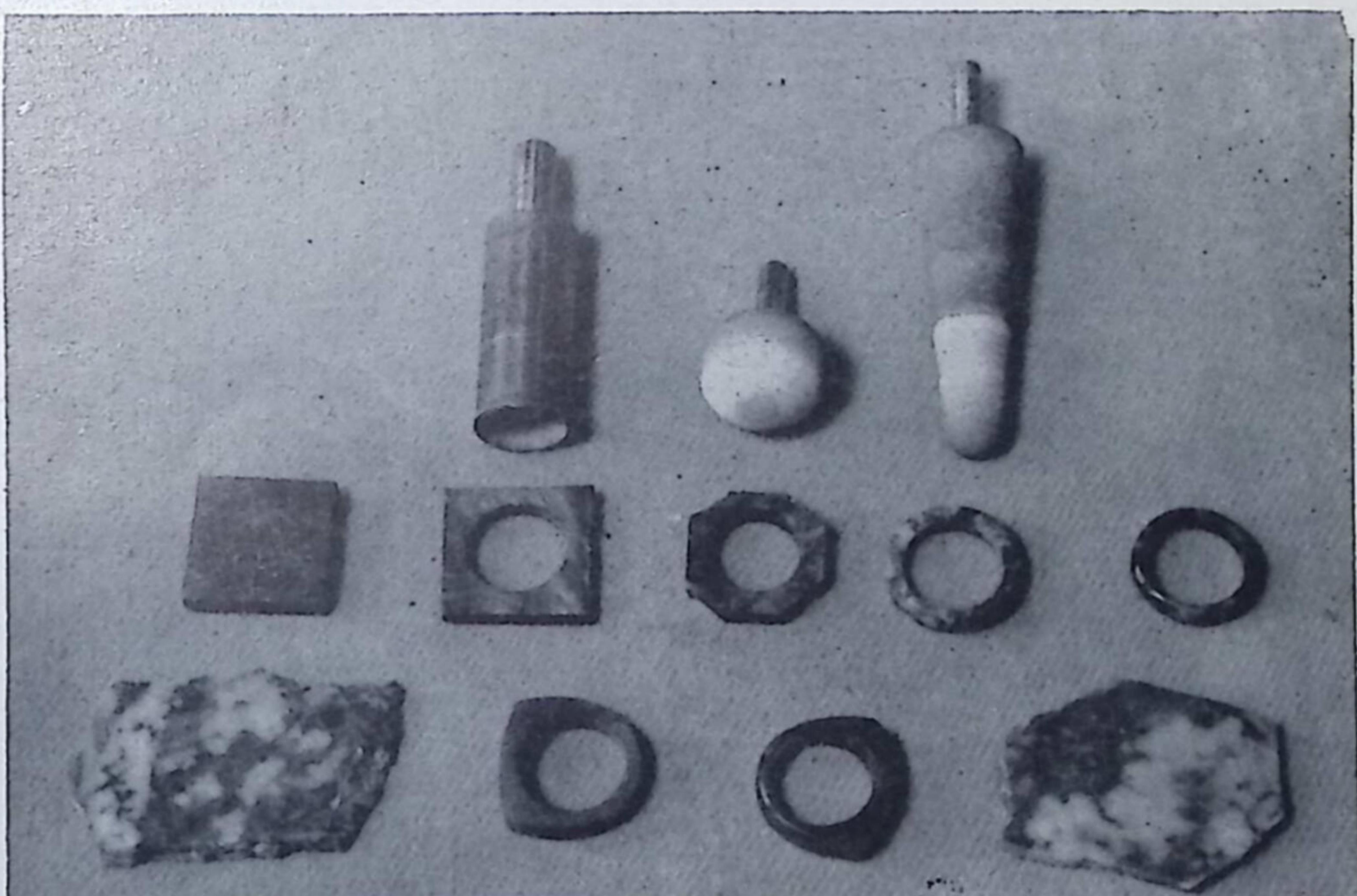
The cutting-through point is the most critical part of the drilling. If too much pressure is used at this point the inside edge of the ring may crumble or chip and the cutter may be damaged.

Take your time! Don't force! Use gentle pressure! There is a rhythm that only you yourself can establish which will insure you against failure. If you operate the drill successfully you will have, in addition to the prospective ring, a nice evenly cut round blank that can be used for ring sets, ear rings, or buttons, depending on the size.

The next step is to take the square, with the hole in the center of it, and trim off the corners in the trim saw. The resulting octagonal piece of material is now ready to have the center bored to ring size. Use the silicon carbide cone-shaped 100 grit tool (see illustration) held in a Jacob-chuck, in a drill press or a Sperisen engraving machine, and ream out to ring size. Be sure to allow for sanding and polishing the inside of the ring. Again—*take your time!* Keep the ring back on the tool. Don't let it grip, or tighten on the cone. Keep the cone wet, wet, WET! Hold the wet brush on the heel of the palm.



Author (above) with William E. Meader, whose ring cutting methods she describes. Illustrated in the photo below are the tools and various stages of a ring from blank to finished product.

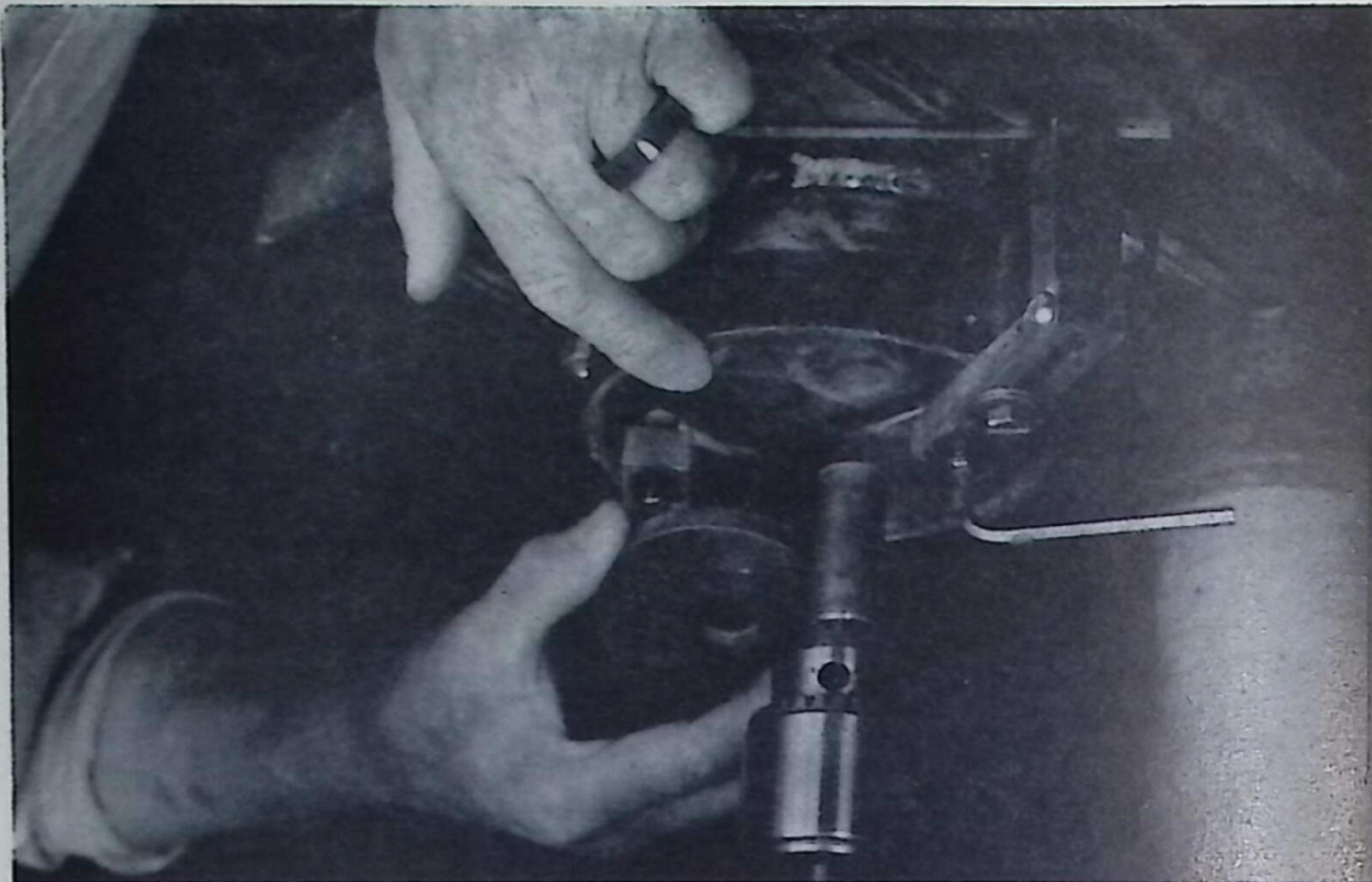


of your left hand. Cup the hand close to the cone and touch it frequently with the brush. If you should push too hard and the ring form grips, stop the machine quickly and release the ring.

Now remove the cone and put on the one inch round silicon carbide tool, 100 grit (see illustration). This is for putting the 45° angle on both edges of the inside of the ring. Turn the ring to

keep the inside evenly reamed. Next, grind the ring to equal thickness all around the outside. Grind a third of the ring on both sides down to about 1/16th of an inch from the 45° bevel and round it evenly.

If you wish to polish the inside of the ring (the professional touch) mount a clean wooden dowel in a Jacob-chuck, running the chuck at about 3000 R.P.M.



The ring on the author's finger is solid jade, the marking being a light reflection. Rings in the photo below are (left to right): tigereye, blue agate from Lead Pipe Springs, Brazilian carnelian, Burma jadeite, black and apple-green Wyoming nephrite and Montana agate. All photos by Henry Reinecke.



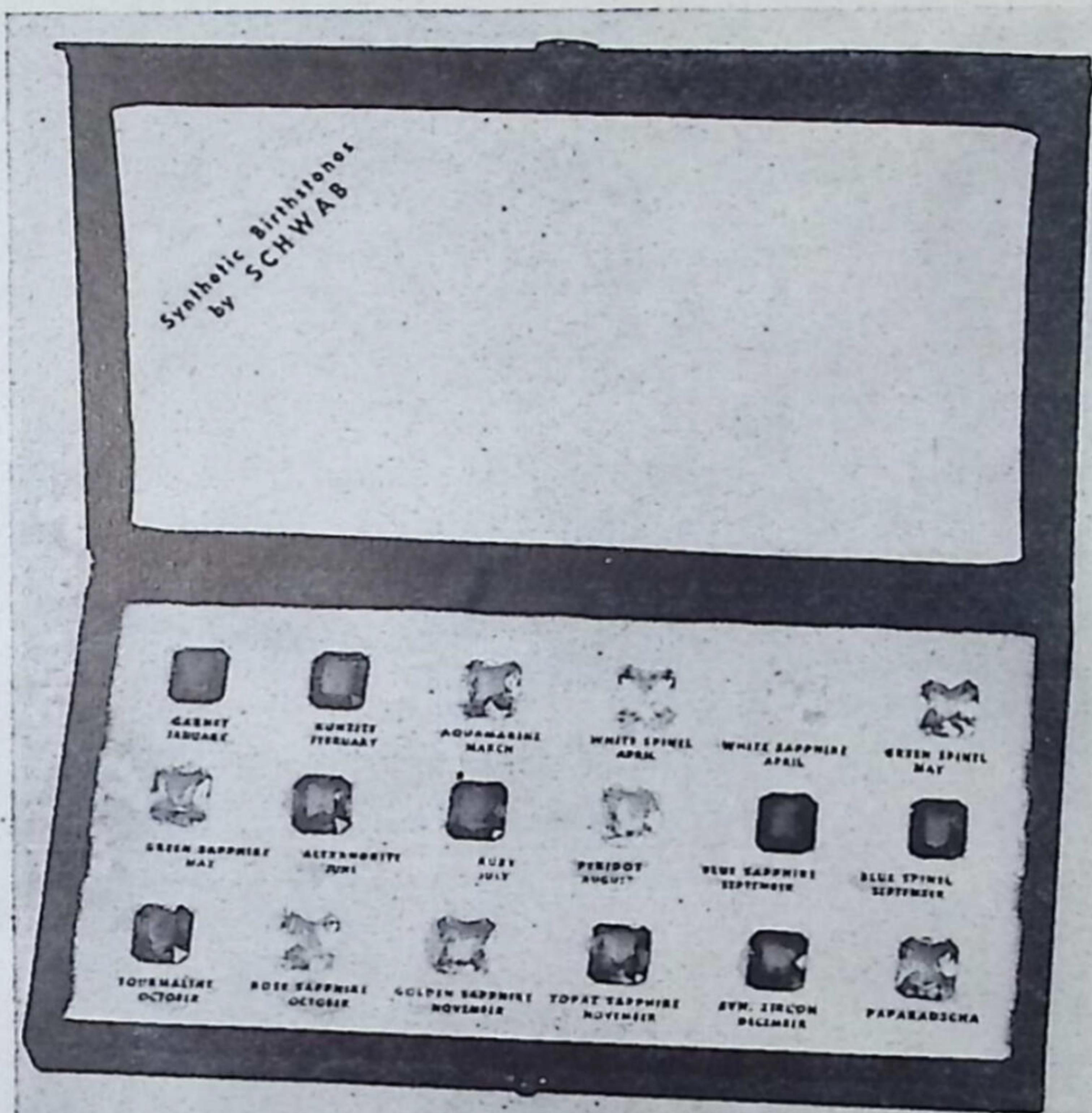
Wash the hands and stone, rinse the chuck in clean eocene and wipe dry. Use 500 silicon carbide grit for this first part of the inside polishing. Again clean the chuck, hands and stone. Using a new clean dowel, finish the polishing with jade polish or tin oxide mixed with water and applied with a clean brush. You are now ready to sand the outside of the ring.

Place the ring on a wooden dowel that comes flush with the outside of the

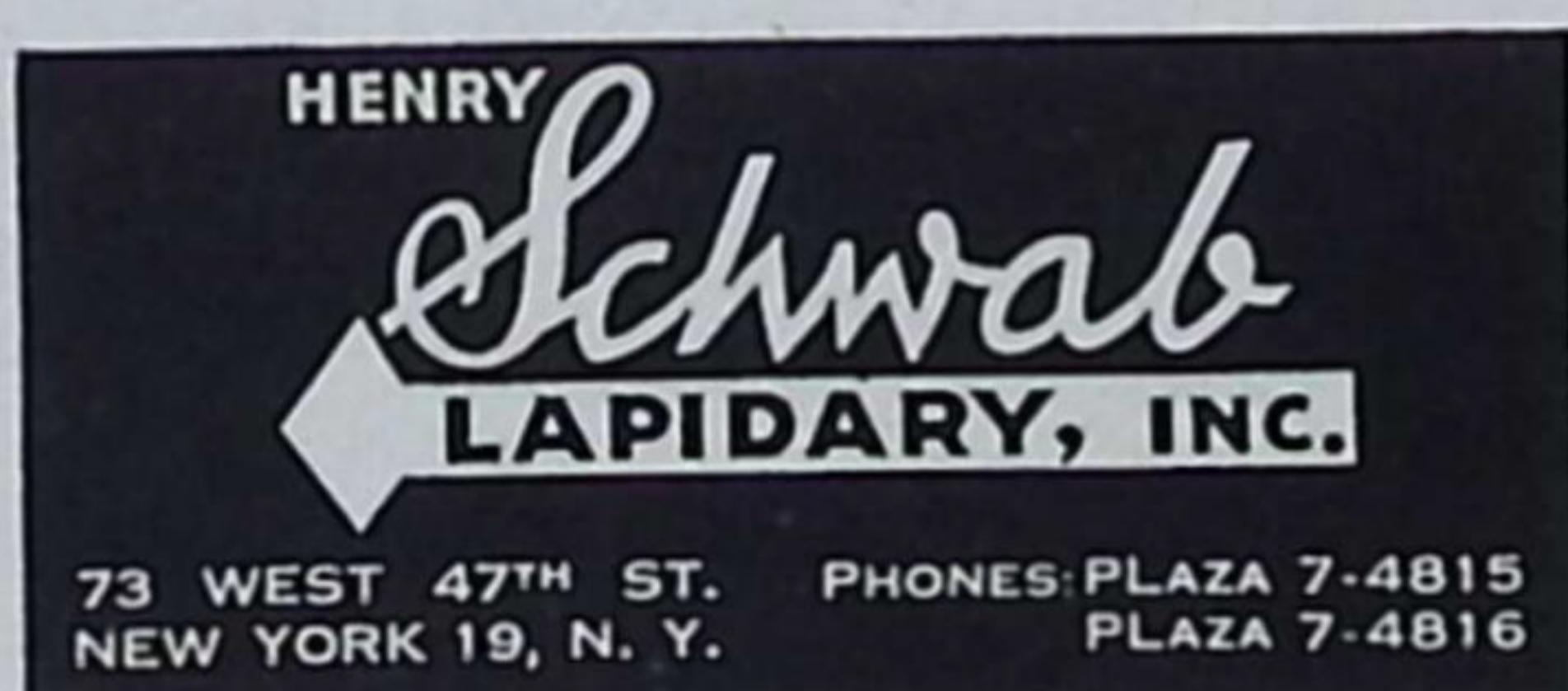
ring. Then sand it with new 220 grit sanding cloth on one half of the ring. Turn and sand the other half. Repeat the same operation, using 320 grit sanding cloth. Examine the ring with a glass to see that all scratches are removed before polishing.

Wash hands, ring and dowel. Place the ring securely on the dowel and polish on a clean hard leather lap (not padded). Use jade polish or tin oxide, keeping the lap wet until the ring is

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almost completely polished. Then let the lap run dry and finish the polishing with a light touch.

The actual making of a jade ring is not difficult but it is a far more tedious operation than making a cabochon. Mr. Meader said oftener than anything else: "Take your time! Don't push any operation. Ask questions if you don't understand, but take your time!" There were approximately sixty rings made in the classes before the school term ended. In the photograph there are rings made of tiger eye, California blue agate from

Lead Pipe Springs, Brazilian carnelian agate, Burma jadeite, black nephrite and spinach jade from Lander, Wyo., and Montana Agate. Agate rings are a little easier to make and polish much quicker than jade, but still, the best reason for making rings of *jade* is the one advanced by Mr. Meader:

"When you put all this work on the making of a ring you want it to last. You can line a ring with silver and protect it to a certain extent, but the best wearing material is a good, flawless piece of nephrite or jadeite."



A black and white illustration of a camel caravan in a desert landscape under a starry sky. The caravan consists of several camels and their handlers, moving across a sandy dune. In the background, there are distant mountains and a bright star in the sky with radiating lines.

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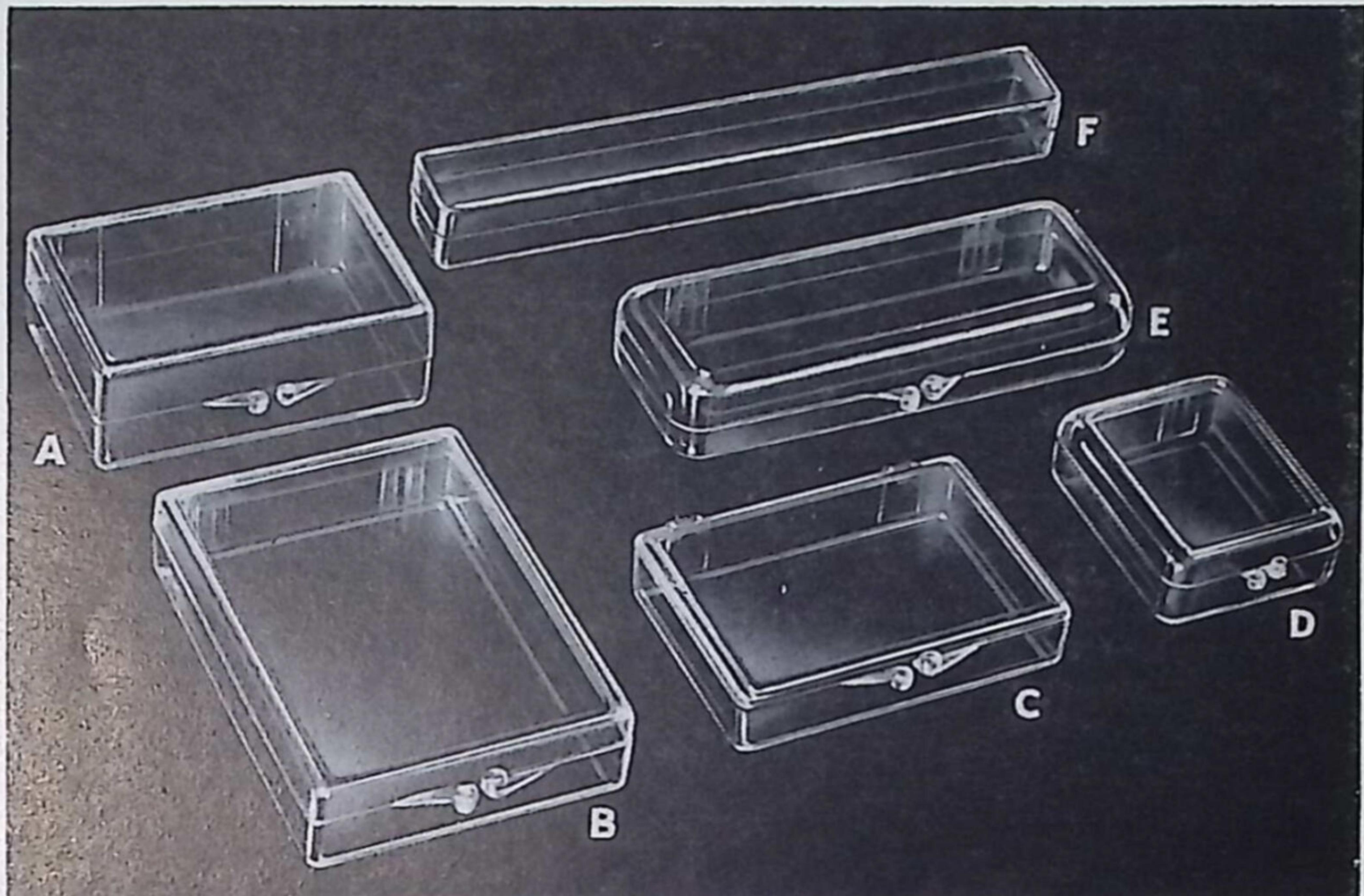
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◆ Controlled-Heat Dopping of Gemstones

By HUGH LEIPER

Chairman of the *Faceter's Corner* of the *Austin Gem and Mineral Society*
1700 Rabb Road, Austin, Texas

In this article the author describes a method, born of long experience, in controlling the heat while dopping gemstones. If this advice is followed the lapidary can prevent the loss of many valuable gems because of cracking from too much (uncontrolled) heat.

Practically every book or article extant recommends the use of an alcohol flame or a combination of alcohol lamp and "stove" of sheet aluminum or other metal on which to place gem material preparatory to dopping. Some faceters who have dealt with heat-sensitive materials, notably Grant G. Waite, recommend starting with the stone two feet in the air over an alcohol flame, passing the material through the rising column of hot gases and gradually lowering to increase the heat. But he adds "if you hear a click and find your stone in two pieces you were rushing things too much." (*Lapidary Journal*, Oct. '47.)

All of the above indicates the need for a better method of applying heat where needed and in just the amount needed *and no more* to the gem preform which is to be dopped preparatory to faceting or cutting a cabochon.

Placing a cool stone on a hot metal plate is certainly a rude initial shock to the material. Only one stone can readily be handled *and controlled as to heat* at one time, and the element of control is lacking to a very great degree. The gem begins to absorb heat on one side only, which is likewise bad.

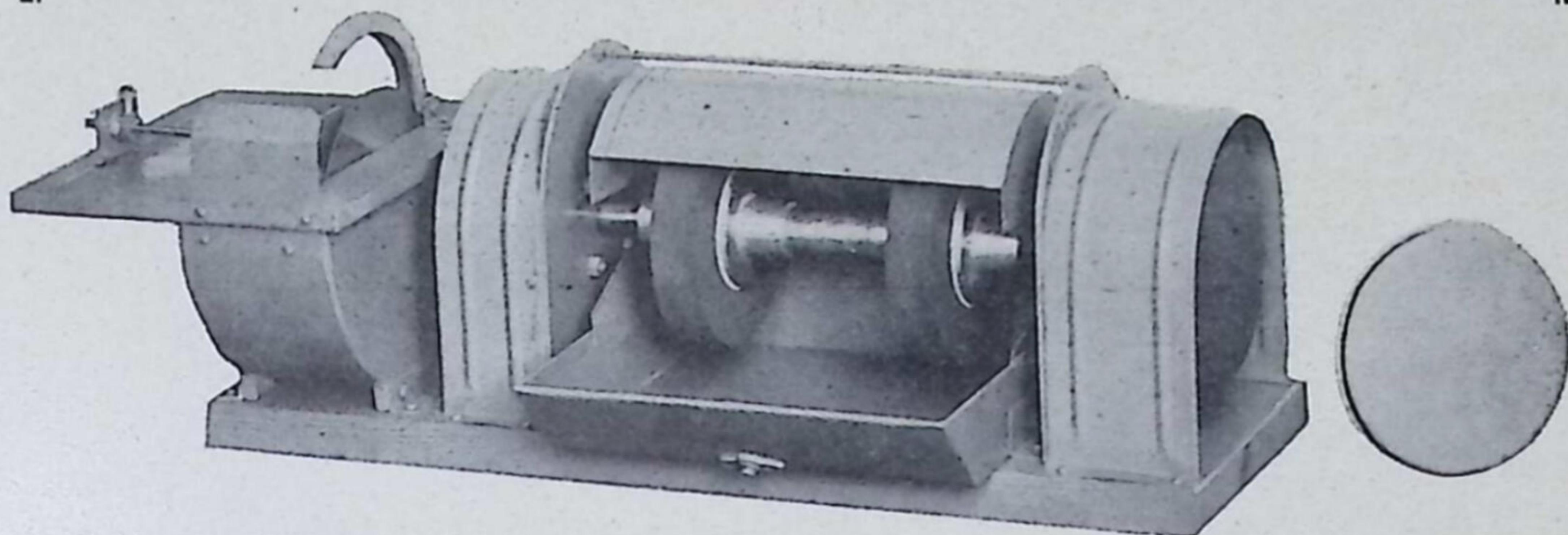
Likewise, after the gem has been attached to the metal or wood dop, but especially in the case of a stone to be faceted, there is the necessity of placing the dop with heated stone attached in the V-block for truing and centering, which is absolutely vital to symmetrical cutting of facets. The heated gem must then come into contact with the truing face of the two brass dops supplied with most 3-way V-blocks. If these and the V-block itself are not previously warmed to an even temperature, approximately

equal to that of the stone itself, further chances of causing cracking of the gem are possible. The limitations of all of the above methods with one alcohol lamp flame and stove are many—and will keep the faceter busier than the proverbial one-armed paper hanger.

Here is a better method—simple, sure and controllable. Procure a medical heat-lamp (infra-red type) — the so-called invisible radiant heat featured in "sun lamps." This can be a bulb only, or the complete unit on a goose-neck with a heavy base so that it will sit on the table. Also procure a pad of fine steel wool, a piece of asbestos shingle, a small brass box of about 2x2x2" with hinged tight fitting lid, or a lift-off lid. Also procure an oven-heat thermometer which will register up to 600 degrees. Drill a small hole in the side of the brass box large enough to pass the bulb of the thermometer inside the box—and pack this with fine brass wool (cuttings from a lathe). The bulb of the thermometer should be placed about $\frac{3}{4}$ " above the bottom and near the center.

To dop gems, all that is necessary is to focus the heat rays of the lamp downward in the direction of this box, into which the gem or gems to be dopped are placed on the pad of brass wool, close the cover and turn on the heat. Place in the warmed area on the asbestos shingle on which the box is set, the complete V-block, extra dops, small metal container for dopping material, wax, flake shellac, Canada balsam or what have you. Also place in the heat the pliers and forceps with which you will need to handle the gems and hot dops. Have an alcohol lamp sitting

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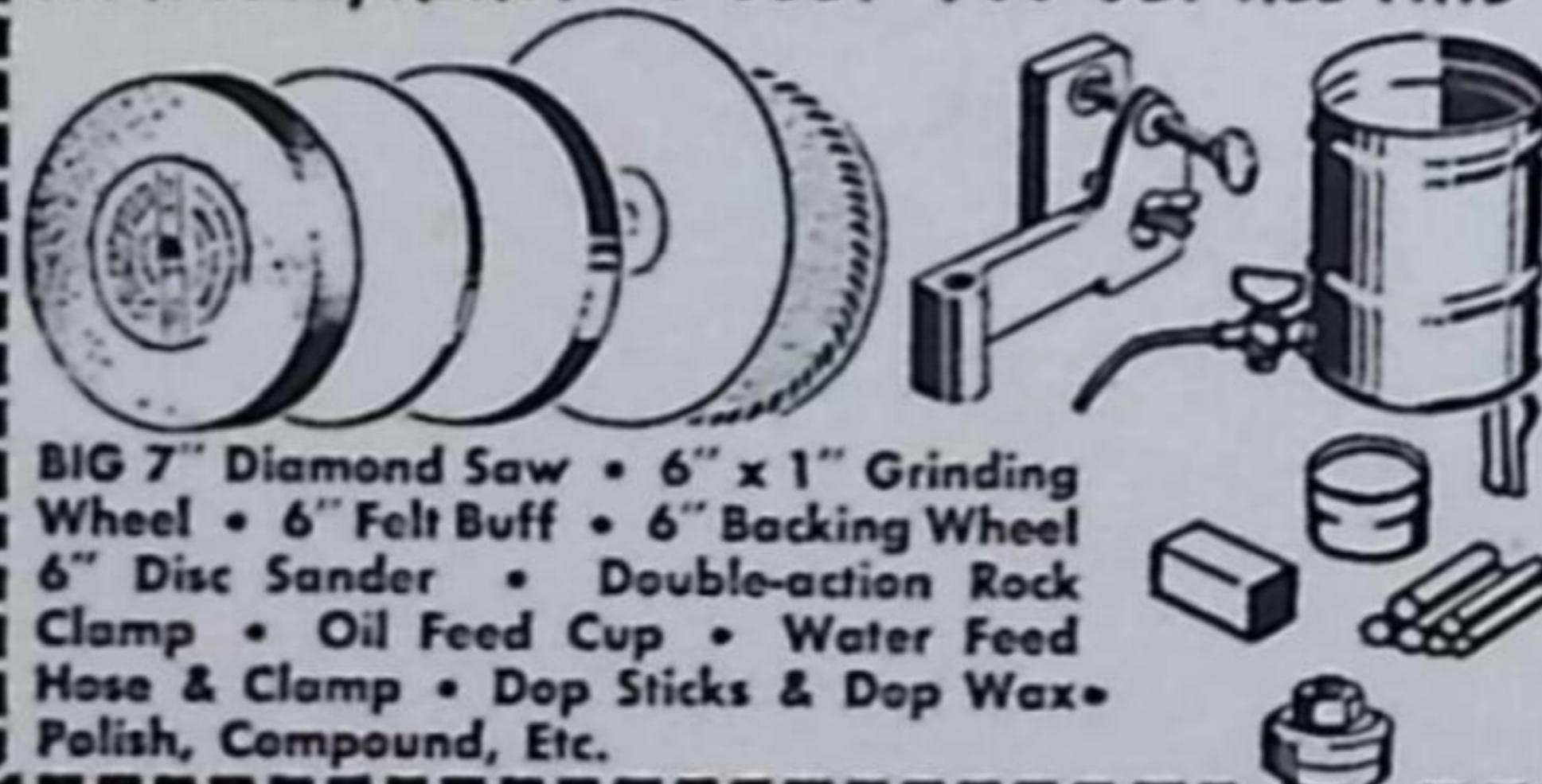
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nearby and lighted, with which to soften the doping material and to apply it to the head of the dop.

All that is necessary is to watch the thermometer and when the desired heat is attained, uncover the lid of the box, reach in with the previously warmed and prepared dop stick and pick up the gem, or pick it up with the forceps or tweezers and apply. Transfer this to the warmed V-block and finish centering the gem. Meanwhile, if other stones are to be dopped at the same time, and have been placed in the heating box, close the lid until ready for the next gem. The box prevents stray currents of cool air from coming into contact with the gem. A shield of three pieces of plywood hinged together and set up behind and around three sides of the whole operation will prevent any breeze from interfering with any step.

The temperature of the gems is regulated simply by moving the lamp nearer or farther away from the doping box. The exact temperature which is desired can readily be maintained if a heat-up time is allowed before the work commences. You will soon learn that so many inches away from the box gives a certain heat, and these can be marked on the table.

For baking doublets, where Canada balsam is used, for making opal doublets, or for gem stone cementing of eyes in drilled holes, etc. the method works equally well. Likewise, if coloring of gem material by heat in small quantities is desired, the small brass box makes an excellent oven. Caution—do not get curious about what has happened to the color too soon. Cut off the heat and let the box and contents return to normal room temperature slowly before opening the box.

In doping cabochon blanks, it is not necessary to use the box at all. Simply place a pad of fine steel wool in front of the heat lamp, and on top of the asbestos shingle, and upon this place as many cabs and other pieces as desired. Let them heat until warm enough. A crumb of wax on the top of one blank is a good indicator for when it softens and starts to spread the stones are ready. The temperature may be controlled for an entire lot by the distance the lamp is placed away from the work. A small can of doping wax placed in the heat

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This authoritative and carefully documented work represents a new and important step forward in the study of Chinese jades. The author spent many years gathering and sifting material in museums all over the world and in the centers of Chinese production. He also made a search of the Chinese literature for writings throwing light upon the history of the craft. His inquiries carried him to the jade workshops of Peking and to the many great jade collections in America.

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LAPIDARY JOURNAL

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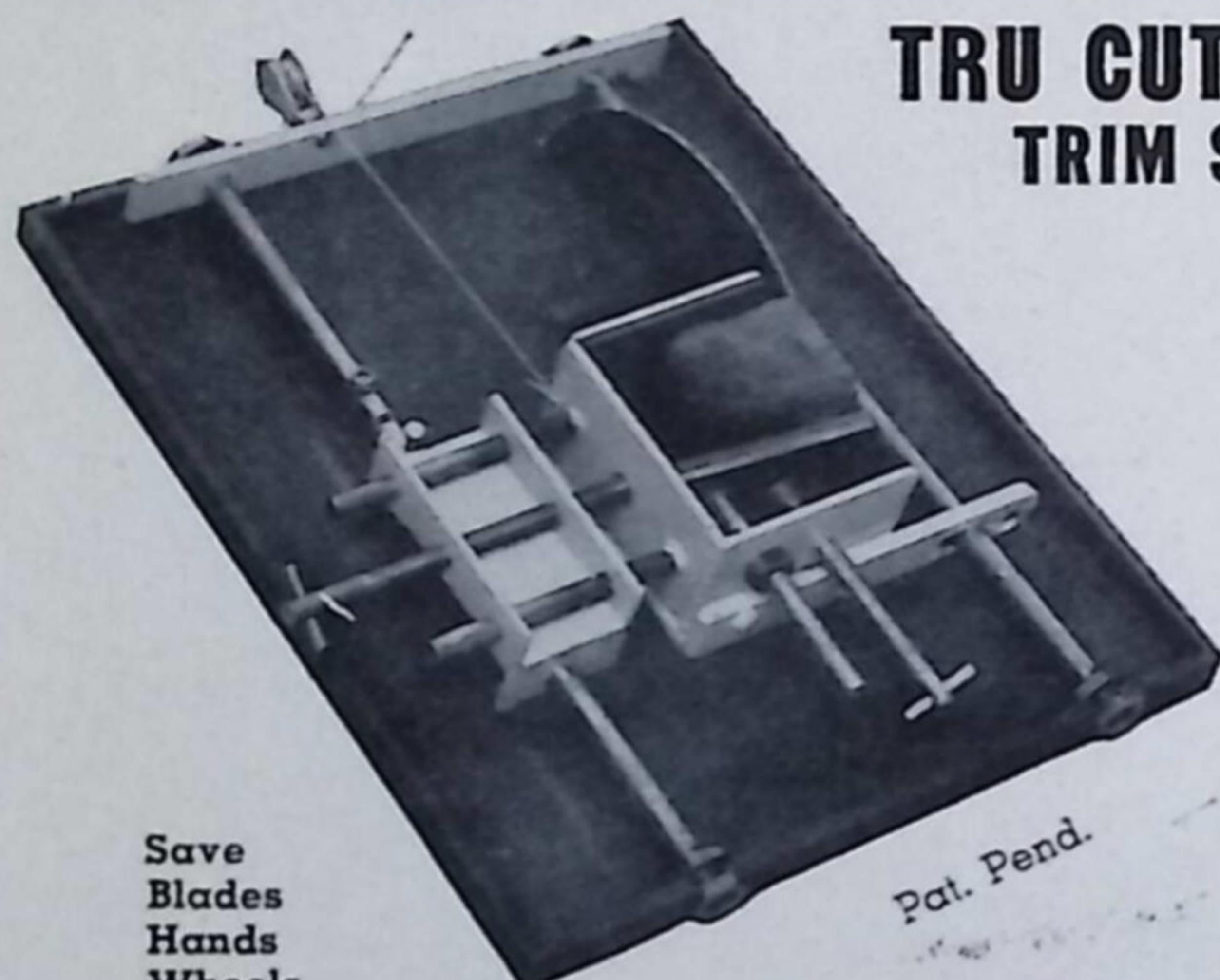
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ray will become workable at the same time. Dipping the end of the stick into this can will cause a small amount of wax to adhere. Pass this rapidly through the flame of an alcohol lamp. Roll it on a cool block of steel to taper and shape. Re-heat it in the flame and apply it to the cab back, picking the stone up from the steel wool by adhesion. Straighten and line it up with the moistened finger tips, and set upright to harden in a block into which a number of holes are drilled or in a coffee can filled with sand. Dozens of cabs can be dopped in much less time than normally with this method, after you are set-up and get the hang of it.

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Revised Lapidary Handbook by J. Harry Howard—\$3.00

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The Lapidary Journal

PALM DESERT, CALIFORNIA

ORIGINAL LADIES' JEWELRY DESIGNS

By WILLY PETERSEN-FAGERSTAM



FIGURE ONE—BUTTERFLY PIN

The bezel, Number 1, is made of 24 gauge fine silver soldered to a backing of 24 gauge sterling silver. If a faceted stone is to be used for the setting, a standard type silver wire is used as illustrated in 1 and 1a in lower left hand corner of diagram on opposite page. Numbers 2 and 3 are sawed from 16 gauge silver plate and filed half-round. The bezels (4) are made of 24 gauge fine silver or they can be made with the lower part 12 gauge sterling silver as shown in 4a. Any combination of stones appealing to the craftsman may be used in this piece—cabochons or faceted gems or both. Number 4 may be made of sterling silver with no stone set. Number 5 may be sawed from 16 gauge sterling silver or made of 18 gauge silver wire with a small bead melted on one end.

FIGURE TWO—EARRINGS

Earrings are made in right and left for either cabochon or faceted settings. The bezel is made of 26 gauge fine silver with a sterling silver plate backing of 24 gauge. Number 2 is sawed from 18 gauge silver plate while 2a is a silver bead filed flat on the back and soldered to 2. Number 3 is sawed from 18 gauge sterling silver plate and filed to shape. Number 4, a small silver bead is soldered in place to strengthen the piece. A combination of colored stones is very effective.

BOOKS ON JEWELRY MAKING

JEWELRY, GEM CUTTING AND METALCRAFT by William T. Baxter—
\$4.00 (New Edition)

A modern craft book that has run through several editions. Complete information for the beginner and advanced craftsman on jewelry making, metal working and gem cutting. 278 pages with 170 illustrations.

SMALL JEWELRY by F. R. Smith—\$1.95

A smaller but very useful book of special value to the beginner. Contains 32 plates with 282 small sketches of techniques and design.

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The outstanding feature of this book is the thoroughness with which it covers the field of hand-made jewelry. It is a complete source book, fully illustrated, of all the basic facts necessary to know in order to make a wide variety of ornamental and professionally-finished pieces of jewelry by hand. Careful and thorough instructions guide the amateur craftsman from the beginning of any number of projects, through the intricate processes of using the jeweler's saw, transferring designs on metal, soldering, pickling and annealing. Several techniques are offered for each job, providing a choice from which the technique best suited to the individual can be made.

The art of modeling in metal, along with the technique of bringing a design out of a metal surface into low or bas-relief, is covered in full. The use of all tools is explained in great detail to assure the making of skillfully-finished projects.

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.

JEWELEERS' WORKSHOP PRACTICES by L. L. Linick—\$6.00

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.

CABOCHON JEWELRY MAKING by Arthur and Lucille Sanger—\$3.50

Beautiful new designs . . . interesting new methods of mounting cabochon jewelry—here is the complete guide for amateur jewelry makers. Contains more than 100 projects, including rings, brooches, bracelets, earrings, pendants, etc., from the simple to the complex. Beautifully illustrated. Gives a full discussion of tools, decorations, the finishing process and types of mountings. Discusses making of the design, making the bezel, the soldering point, kinds of solder and uses, kinds of fluxes, temperatures, pickling, cleaning and polishing.

JEWELRY AND ENAMELING by Greta Pack—\$3.95

A "working" book on the subject. Divided between basic principles and technical data. All of the steps are well illustrated by drawings and photos. Floor plan for setting up a shop. The tables alone are worth the price of the book.

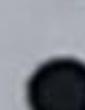
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LAPIDARY JOURNAL



PALM DESERT, CALIFORNIA

Fig 1.

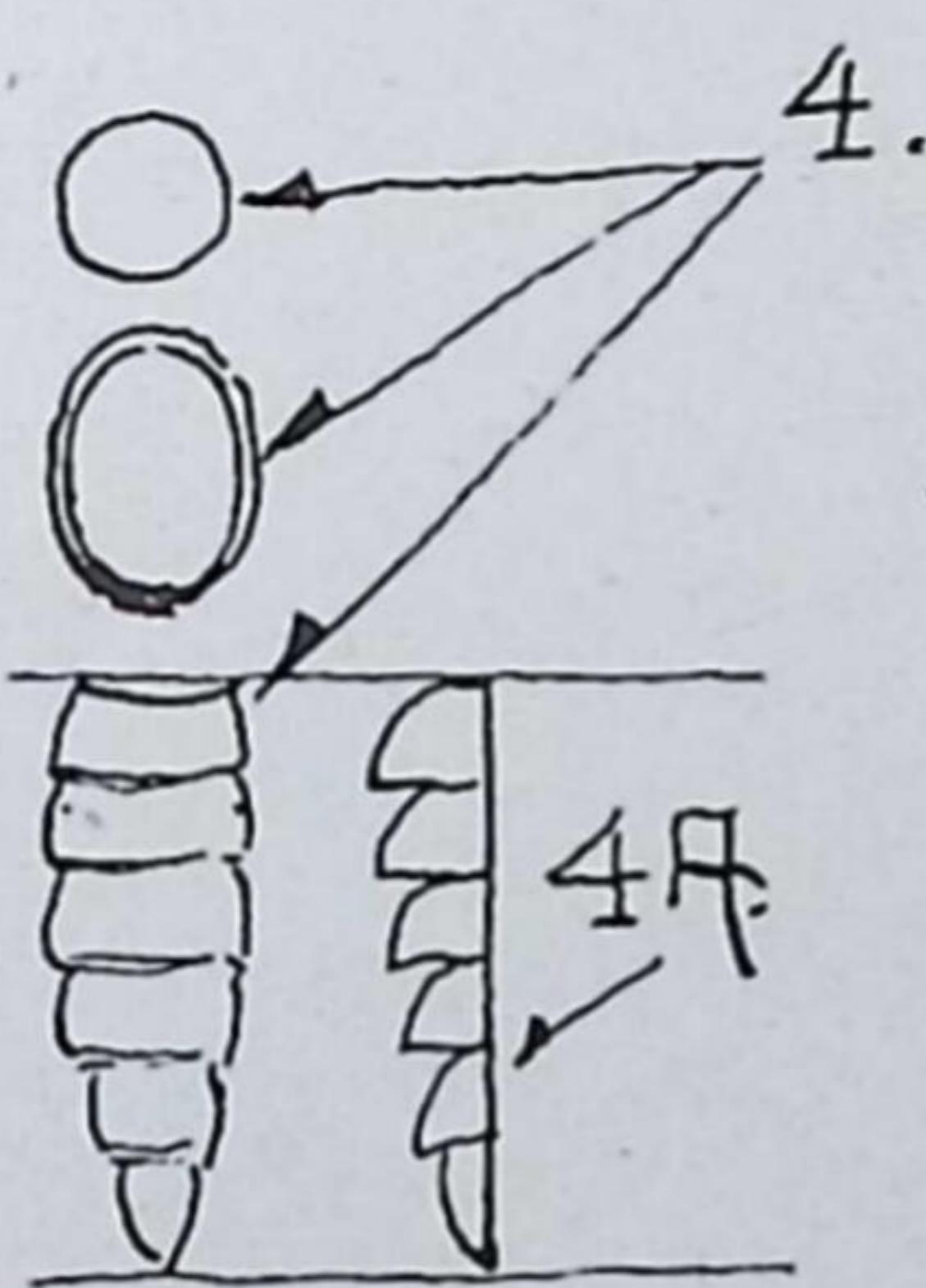
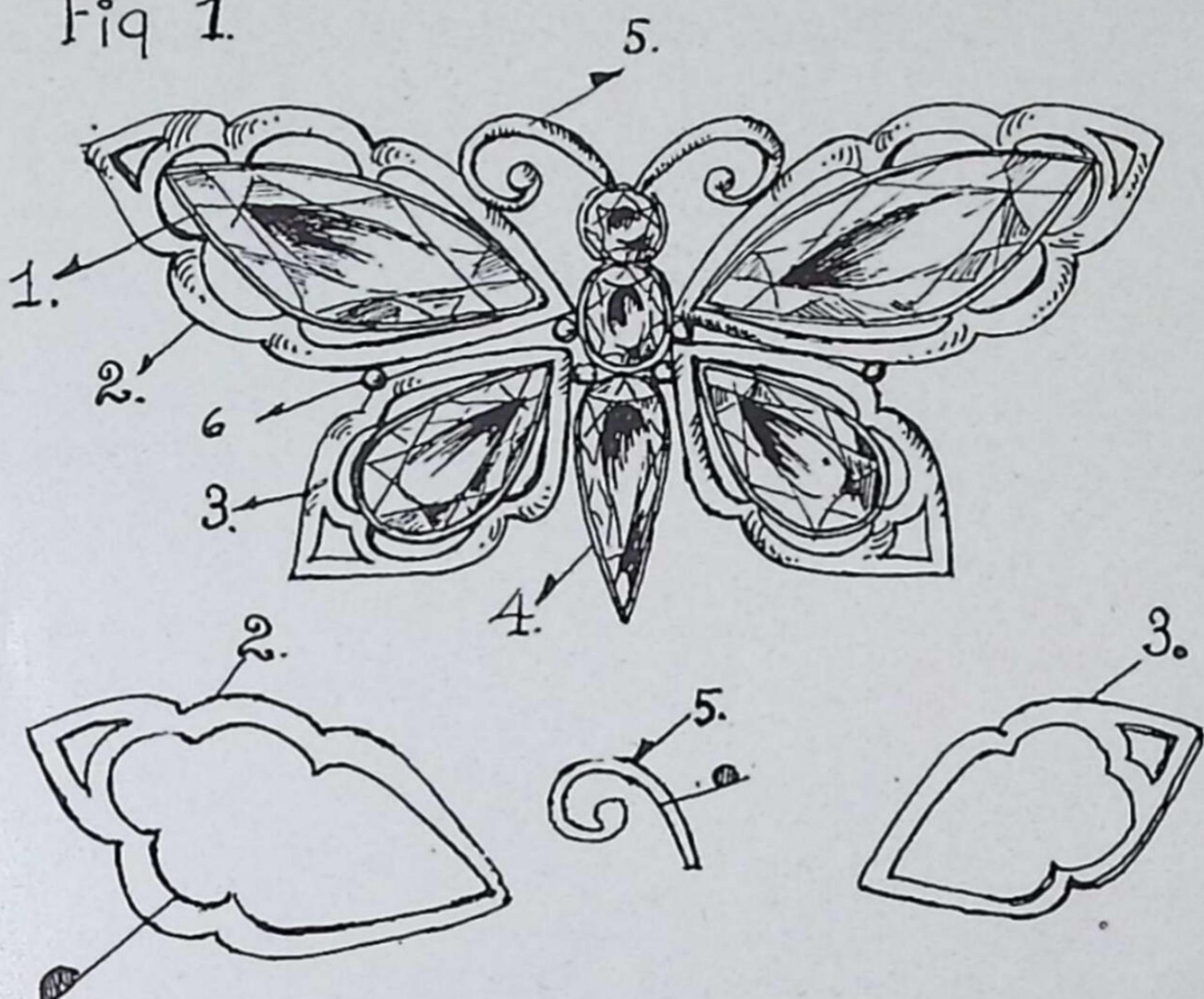
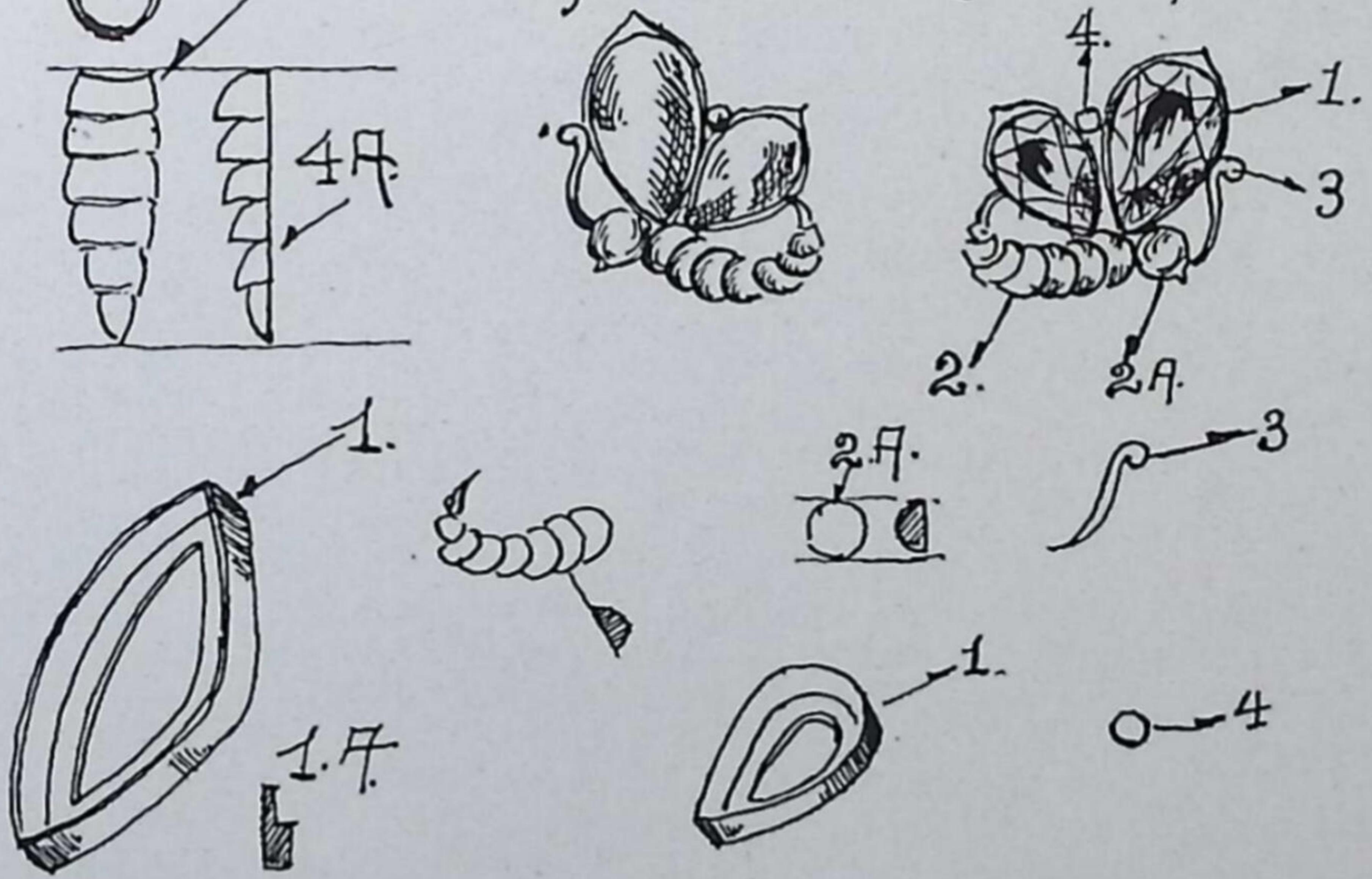


Fig 2. EARRINGS



♦ Lincoln Head Carved in Sapphire

(As first reported by Lelande Quick in the November *Desert Magazine*)

If societies wish to have something around with which to highlight publicity for their shows next year, it might be wise to get their names on the list right now for an item of top interest. A 1318 carat sapphire head of Abraham Lincoln has been carved for Kazanjian Brothers of Los Angeles and they can be addressed at 220 West 5th Street.

The Lincoln head is to tour the country soon and we are not certain that the Kazanjians will look with favor upon the idea of showing this unique piece at rockhound gatherings. However, they have been generous indeed in displaying their collection of the largest star sapphires in the world at many gem and mineral shows sponsored by earth science organizations and perhaps they will be glad to display other treasures in sapphire as they develop. Many people will remember seeing at shows their "Star of Queensland," the largest star sapphire in the world. This was cut from one of the five largest sapphires ever found . . . all of them owned by the Kazanjians.

James and Harry were poor boys of Armenian descent and they have prospered greatly in the last few years. We remember them 20 years ago when they made a gold ring for us set with Russian lapis lazuli — in our own pre-cutting days. They gave the small order as much attention as if it was a commission from a king and the whole job cost less than \$20. It was a big job to them at the time and big money to us for 20 years ago \$20 was hard to get.

When they acquired the five large sapphires from Austria they immediately had a desire to do something with them in which all the people of America could share. So they conceived the idea of making one of them into the largest star sapphire known and they reserved the other four pieces for a "Great Americans in Sapphire" series. The Lincoln head is the first of the series and the next will be a head of Andrew Jackson. "Lincoln and Jackson were always our

particular heroes" said James, when the completed work was first shown on September 25. James believes that Jackson, more than any other American, stood for the real spirit of American opportunity for all. The third head will be George Washington and then the last remaining sapphire will be carved into a likeness of Henry Ford, believed by the owners to represent the best symbol of initiative in our day.

The Lincoln carving was done by Norman Maness over a period of two years. Maness closely followed the advice of Dr. Merrell Gage, sculptor and Lincoln authority. Dr. Gage is widely known for his lecture on Lincoln, delivered while cleverly molding a head of Lincoln in clay. He received his training from Gutzon Borglum, who created the head of Lincoln in the Mount Rushmore Memorial.

Maness started the work November 7, 1949, and completed the final polishing September 20, 1951. The rind of the rough sapphire (weighing 2302 carats at the beginning) was first "peeled" away with diamond grit. At each stage of the grinding, casts were taken for future reference. When the rough head was achieved the carver began chiseling in the features with tiny wheels $1/64"$ in diameter. A crack developed near the nose after months of labor and the whole face had to be done again.

The head is a beautiful likeness of Lincoln. In our humble opinion it is too beautiful. Lincoln, in this portraiture, looks too much like a well-fed benevolent grandfather contemplating how many millions he will leave each of ten grandchildren. He hasn't the character you immediately see in his head as it appears on a cent. This is the handsomest Lincoln we have ever seen. However, there is no doubt about it—you know it's Lincoln when you look at the sapphire.

Like the "Star of Queensland," the Lincoln sapphire is black and that greatly detracts from the magic of the word "sapphire" as everyone will sup-

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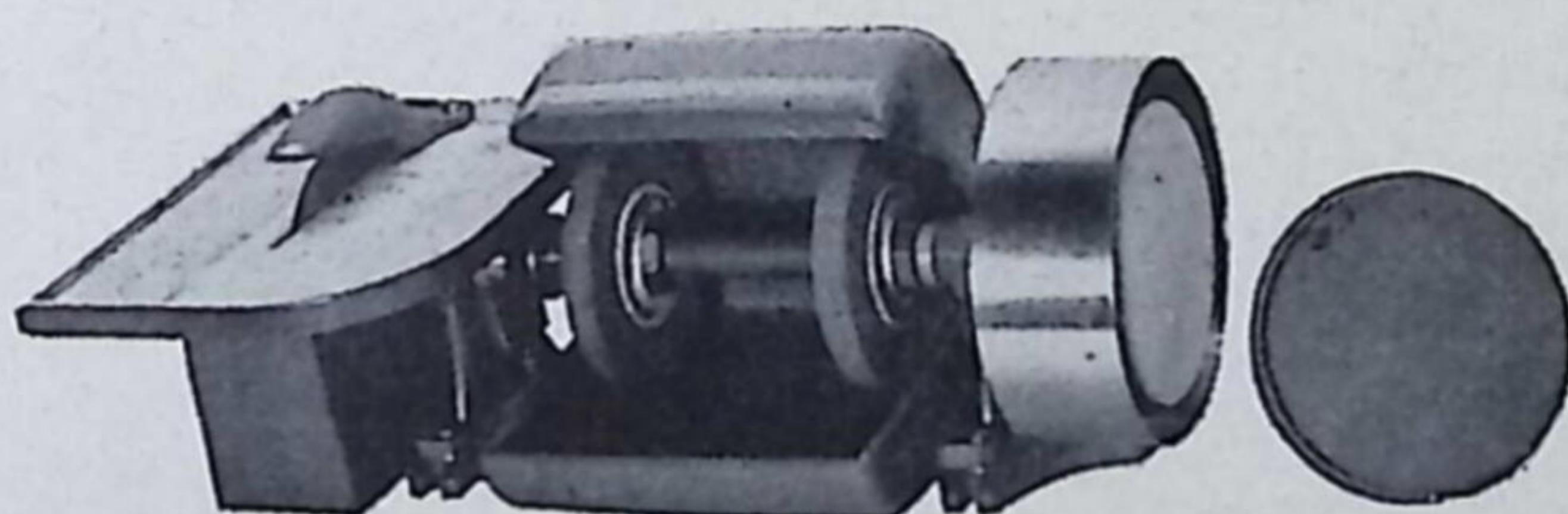
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pose it is a rich corn flower blue. One news reporter used the phrase "with a few indistinguishable touches of deep translusion blue." He meant translucent blue of course and from what we have seen of the Kazanjian sapphires the blue is indeed indistinguishable.

Many people have been disappointed upon first seeing the black star sapphires to note that they were not blue but about like obsidian. It follows that many will be disappointed in a black Lincoln just as they have been with a very dark green (almost black) jade *Thunder*.

The value set upon the piece is \$250,000 but \$200 a carat is a little high for black sapphire it seems to us. The weight of the piece is about 9 1/3 ounces, or 1318 carats converted from avoirdupois. That too will be a big let-down to unthinking people who will go to view it expecting something as large as the Lincoln statue at his Memorial in Washington.

An odd circumstance in the affair is that Norman Maness is not a lapidary. He is a carpenter turned steel engraver because of a war injury and he was persuaded to tackle this job just because it was an experiment. No one had ever done it before and there was no past experience to refer to.

The Lincoln head in sapphire is a magnificent accomplishment and a great unselfish gesture if it is made available to the view of all the people. We repeat —get your name on the list now for this piece breathes publicity for any gem show.

November 9, 1951

Dear Mr. Quick:

May we express our sincere gratitude for your fine article in the *Desert Magazine*.

Your comments were of particular interest to us as it is the first time we have seen any definite impressions about the stone expressed. There are one or two points which we would like to clarify as possible interest to you. You mention that the sapphire Lincoln appears more handsome than any previous characterizations you have seen. The stone was modeled from an actual mask of Abraham Lincoln which is at this time in the possession of Dr. Merrill Gage. During his lifetime study of Lincoln, Dr. Gage informs us that he has found the commonly believed idea that Lincoln was a clumsy and awkward

man is erroneous. Historians are now agreed that he was in truth quite handsome and exquisitely groomed with particularly symmetrical features.

You stated that the stone is black. It is true that in mass such as this the light does not penetrate the stone consequently making it appear black from a short distance. However, upon close observation you can distinguish quite readily the deep blue cast, and when examined under a light it is a breathtakingly lovely blue. *Life* magazine photographers took some photographs in color, and we were quite amazed at the lightness. If the stone had been cut and polished into faceted stones of three to ten carat sizes, they would have been very pleasing light blue.

We appreciate your suggestion that societies call upon us for the use of the stone for display purposes. We concur with you that this method of publicity is very beneficial to everyone concerned, and we shall be most happy to cooperate to the fullest possible extent with rock-hounds. The *American Gem Society* is planning an exhibition at the Conclave in Chicago the latter part of March, and the stone will be shown in Springfield, Illinois, during Lincoln's birthday. We have already received enough requests to keep the stone on tour through 1952. We hope that everyone in the country who is interested in it will have the opportunity to view the stone, and by having it displayed by jewelers in all states in this manner we feel it will accomplish this purpose.

If we can be of assistance to you at any time, please feel free to call upon us, and again, thank you for the splendid article.

Very sincerely,

KAZANJIAN BROTHERS

P.S. We are planning to have the stones shown at the Glendale, Calif., mineral show on May 17th and 18th. We thought you might be interested in this display.

SPHERES CUT AND POLISHED
Pen bases in onyx drilled and ready to mount
—\$1.25 up.
Matching swivel fountain pen and pencil set
ready to mount—\$2.50 a set.
Now taking orders for Christmas for beautiful
onyx book ends. 4" spheres mounted on
bases—\$18.50 a set.
Please order early.
Visit our store on Hiway 66, 10 miles South
of Victorville.
VICTOR VALLEY GEM SHOP
Box 158 Phelan, Calif.

"Timber"!

In the process of transformation from a hobby to a business we are disposing of some very fine petrified wood to make room for other good materials which are also in demand.

We offer chunks and tree sections from 10 to 400 pounds. Beautiful display slabs from 3 to 18 inches in diameter. Roots that polish into showy cabinet specimens and are of gem material. Fine specimens in all sizes of Eden Valley limb sections. Just ask for what you want in wood.

Penholder bases in wood from Washington, Nevada, Arizona and Utah. We fit with pens to your order.

Display slabs of Oregon tempskya, Nevada palm and Utah cycad—all in gorgeous colors—Idaho and Utah limbs.

Arizona, California and Mexican onyx for spheres and book ends.

Plume agate slabs from \$.25 to \$5.00 each.

Outstanding specimens of amethyst geodes from Uruguay at very reasonable prices.

- Highland Park lapidary outfits
- Di-Met blades in all sizes
- Allen Junior Gem Cutter with all accessories
- Frantom Cabochon Units in 6 and 8" wheels
- Diamond for re-charging laps
- Diamond charged copper laps for faceting
- Fluorescent lamps and minerals

Custom cutting and polishing for cash or on shares. Spheres made to your order.

Eldon E. Soper

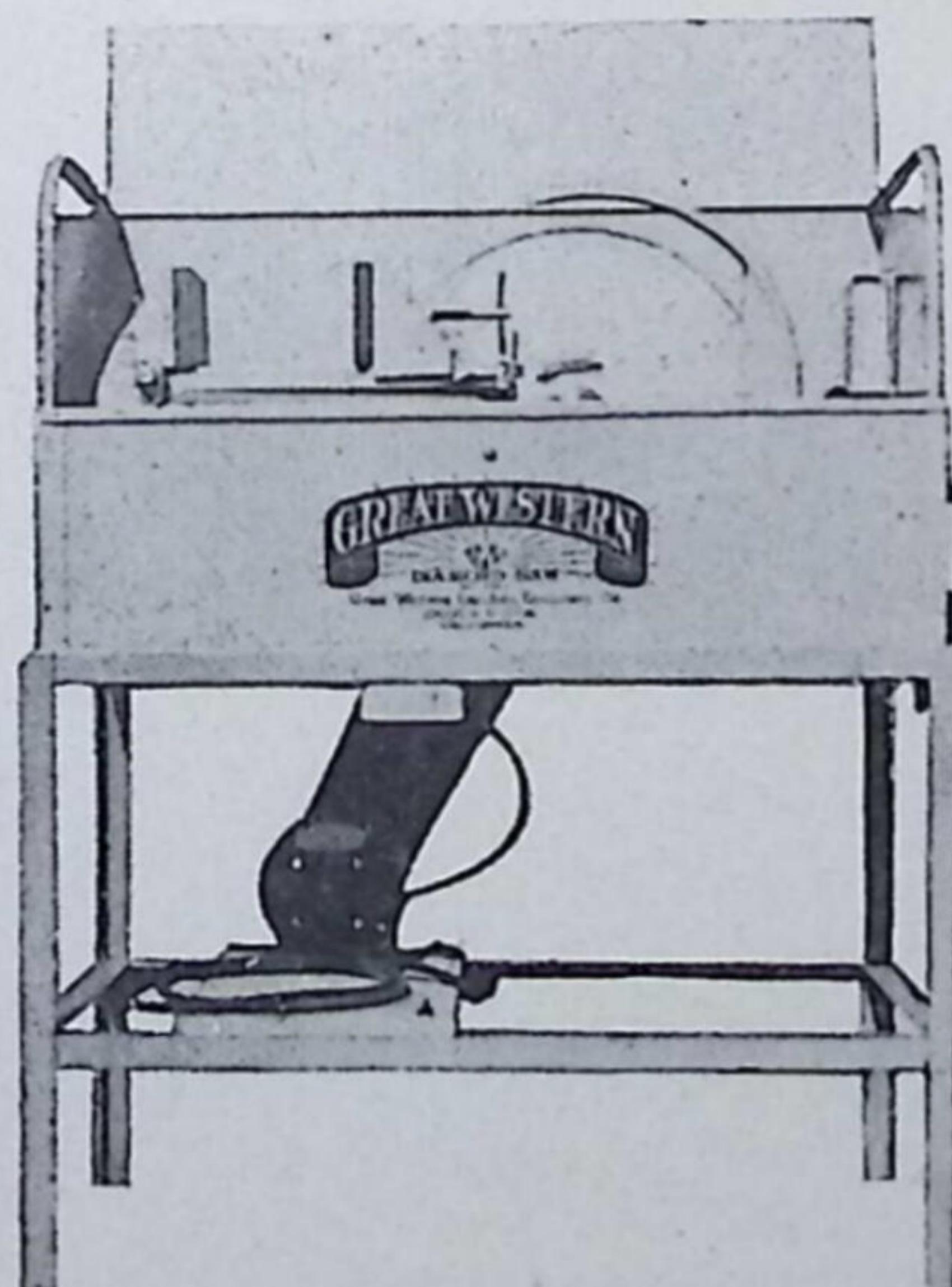


433 S. Central Ave

Citrus 2-8749

Glendale 4, California

Great Western Hydraulic Controlled Diamond Saws



The carriage on the Great Western Saws is controlled by an hydraulic cylinder which makes the smoothest cuts and gets the maximum wear from saw blades — no forcing, — no binding.

Vise has 8" opening with 4" cross-feed for slabbing, 1" arbor shaft takes 16" or 18" blade. The rigid frame makes it quiet and smooth running. Double hinge cover exposes front and top when open.

SEND FOR LITERATURE

GREAT WESTERN LAPIDARY EQUIPMENT CO.

P.O. BOX 444, 740 HILLTOP DRIVE, CHULA VISTA, CALIFORNIA

◆ Personal Facets

By LELANDE QUICK

It is a matter of constant amazement to us, as well as of pardonable pride, that with about two hundred advertisers in each issue we have so little trouble. Once in a while a man will enter business with too little capital or knowledge but he soon falls by the wayside. We seldom get our fingers burned any more however since we are in a fortunate position where we can decline advertising until we are reasonably sure the advertiser is good for the business. When we receive a complaint from a subscriber we immediately run it down and we hardly average two complaints per issue. We believe that is a record.

Since the *American Gem & Mineral Suppliers Association* came into being the entire business picture of the houses catering to our hobby has been changed for the better. The Association has been good for our hobby. We have pretty well eliminated the bad practice of having someone offer seeming wholesale prices direct to the consumer. It is our practice to decline further advertising from anyone advertising a price in the *Journal* who will not give a discount on that item to other legitimate dealers in the business. This is misunderstood in some quarters as an attempt to regulate prices but we remind our readers that it is strictly against the law of the land to attempt price regulation by cartels or any kind of pressure.

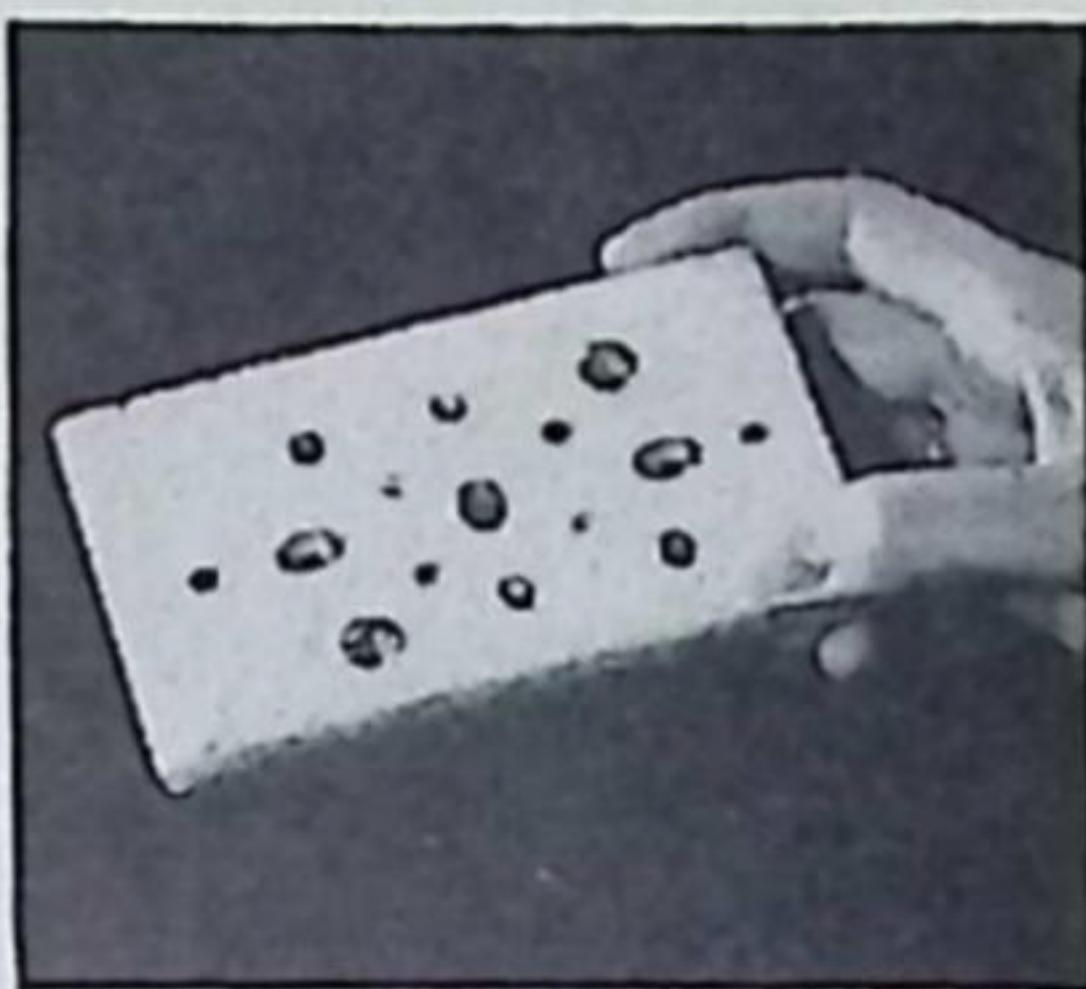
Many of our present advertisers have never advertised anywhere else than in the *Journal* and they have established successful businesses through that advertising. Few advertisers ever start with us and then drop out unless they sell out. They constantly tell us of the fine results they get from our approximately 25,000 readers. We never publish these letters but we offer one here, and a little history connected with it to show our sincerity in guiding our subscribers to the right people. We are in a position now where we cannot accept many new advertisers.

The International Gem Corp. of New York wanted to place an ad with us some time ago and we had no room. Finally an editor of one of America's largest crafts magazines called us from New York and put in a good word for the firm and when we had space available we assigned them a page in our June issue. They also ran a half page in the August issue. In a recent letter they said "you may be interested to know that so far our advertising has brought in over 3100 replies actually from the *Lapidary Journal* in the way of catalog requests, orders, re-orders etc. That's quite a batch of mail in our language." Those replies cost them about 2½ cents each . . . a small charge indeed for such good business.

We had a subscriber once who would not renew because he said the *Journal* "was all ads." He didn't realize what he was missing in the articles! The ideal break for the subscriber to any magazine, according to best publishing practice, is to give 50% of the space to quality reading matter and use the other 50% of the space to sell advertising to pay for the ride. In the last four issues we have printed a total of 5848 inches of which 2885 inches have been advertising (including our own ads). That is 49% advertising and 51% straight matter . . . as near the ideal as we ever hope to achieve. If it were not for the 49% we never could supply the 51%. And then it is strange, but true, that we probably have several thousand readers who never read one article in the magazine . . . they only buy it for the ads and so we really try to do a good job in presenting the ads attractively and correctly spelled.

The figures we quote are the authentic ones we must supply to the Post Office Department in connection with our second class mailing permit. This second class mail deal is something that the public knows little about so we'll tell you. The 51% reading matter we have discussed has been sent you by Uncle Sam at absolutely no cost to us at all. The 49% has been charged for weight only into the zone to which the magazine is mailed. To state it another way—a *Journal* weighs about a half pound and we pay postage on four ounces, or the advertising only. The rest comes to you in the "interest of dissemination of information to the public," as Uncle puts it.

Postage rates on second class matter are about to be boosted 30% but in all



For the Gem Collector

NU-FOAM Plastic Container-Mounts. Exhibit your handiwork to best advantage in these clear plastic boxes containing snow-white plastic "foam" as a pliable setting for specimens. Each, complete: 3"x5", 35c • 5"x6", 55c • 7"x10", 85c

RECOMMENDED TO THE CRAFTSMAN:

AGATE, *Brazil*. Dyed agate, red-and-white or black-and-white in pieces averaging 1" to 2", 5 for \$1.00 (*tax extra*).

CONGO MALACHITE. Choice hard banded dark green pieces. Per lb., \$7.00; per $\frac{1}{2}$ lb., \$3.50; per $\frac{1}{4}$ lb., \$1.75 (*No tax*).

HELMET SHELLS (Cassis sp.). Popular cameo shells: 4" to 6", \$1.50. \$2.00, \$2.50. ("The Art of the Lapidary" by Sperisen, \$6.50).

Send for Free Price List S-9, "Minerals for Cutting and Polishing"

WARD'S NATURAL SCIENCE
ESTABLISHMENT, INC.

3000 RIDGE ROAD EAST

• ROCHESTER 9, NEW YORK



To our many friends and customers who have supported us in our fair policy, to achieve its acceptance and success, we are happy to extend our sincerest wishes for—

**A Bright and Merry Christmas
A Prosperous and Peaceful New Year**

Myco Precision Casting Co.

Distributor of Uncas Blank Mountings

1113 Meadowbrook Ave.

Los Angeles 19, California



fairness we pass along the information that this is the first boost since the act was established in 1879 . . . about the only thing in America that still sells today for what it did seventy years ago. This increase is being passed along to us by an increase of 10% every year for three years . . . if it passes. We don't like price increases but certainly no one can deny we had this one coming. You will read a lot of editorials in the press about this and most of the ones we have read so far have given the public wrong information.

Our publishing venture is unique in one respect. We have all the advertising we can handle and while it comes from all over the nation we know our advertisers so well that in more than 50% of the cases we call each other by our first names. There is a close personal relationship, with few advertising agencies in between.

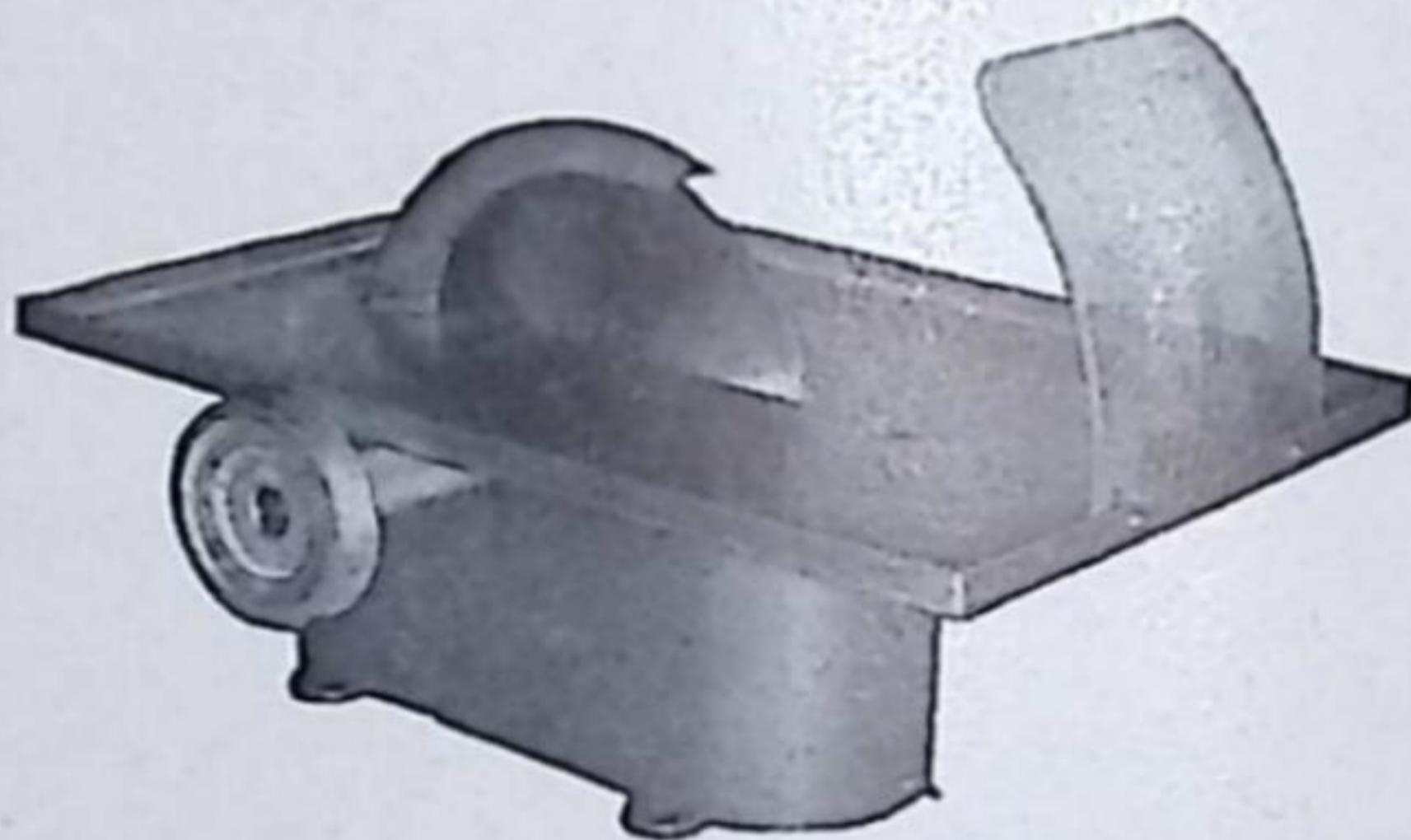
There will be other postage increases that bother us more . . . postals raised to 2 cents, letters to 4 cents. We therefore plead with our subscribers to lighten the load in these ways—let us know your new address as soon as you can and always give your old address too . . . when you write us for information send along postage for your reply . . . check the stencil on your envelope right now and tell us of any error in spelling or address . . . no need to write a letter; just tear the stencil out, correct it and mail it to us.

We thought you would like to know all this.

Merry Christmas —and a New Year of Peace!

ROCK-A-TEER
MODEL NO. 160
WITH
OIL-LITE
BEARINGS
(LESS BLADE & BELT)
"Trim-Master"
BALL BEARING UNIT No. 260 \$22.95
SHIPPING WEIGHT 13 LBS. F.O.B.
ROCK-A-TEER ENTERPRISES
P. O. BOX 203-L BREMEN, IND.

ONLY \$19.95 F.O.B.



IMPORTERS AND MAIL ORDER SUPPLIERS

30 varieties facet rough
40 varieties cab material in slabs

Fine crystal specimen groups
Single crystals — Ore specimens

Our large turnover assures you a constant source of fresh desirable material from all over the world. You'll like our "memo" plan. Our 1952 booklet is now ready and we issue a monthly special list. A postcard brings you both.

2183F Bacon St.

PLUMMER'S

San Diego 7, Calif.

UNUSUAL GEMS

COLLECTORS — DEALERS — JEWELERS

Emeralds — Precious Topaz — Catseyes — Tourmalines — Peridot — Andalusites —
Amethysts — Star Sapphires — Morganites — Aquamarines — Chrysoberyls, etc.

ROUGH STONES FOR DEALERS

Tourmalines — Beryls — Citrines — Chrysoberyls — Amethysts — Emeralds
RARE CRYSTALS

Aquamarines — Chrysoberyls — Emeralds — Andalusite (85 carat gem)

CARVED FIGURINES AND ANIMALS

Tourmalines — Beryls — Rose Quartz — Rutile Quartz — etc.

Memo selections on request • No Price Lists
(satisfaction guaranteed)

ALLAN CAPLAN

2 WEST 46TH STREET

NEW YORK 19, N. Y.

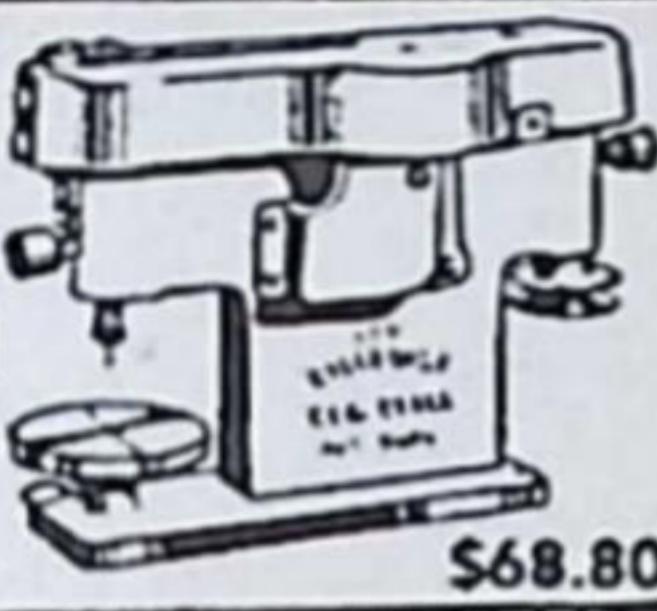


HILLQUIST TRIM SAW

The "Cadillac" of trim saws. Exclusive "up-and-down" arbor. "No-splash" plastic guards. Precision rock clamp and guide. Complete with 8" blade, \$62.50

HILLQUIST GEM DRILL-HOLE SAW

Drills finest holes at high speed and saws discs up to 1 1/2". Exclusive ramrod action prevents core plugging. Fully automatic.



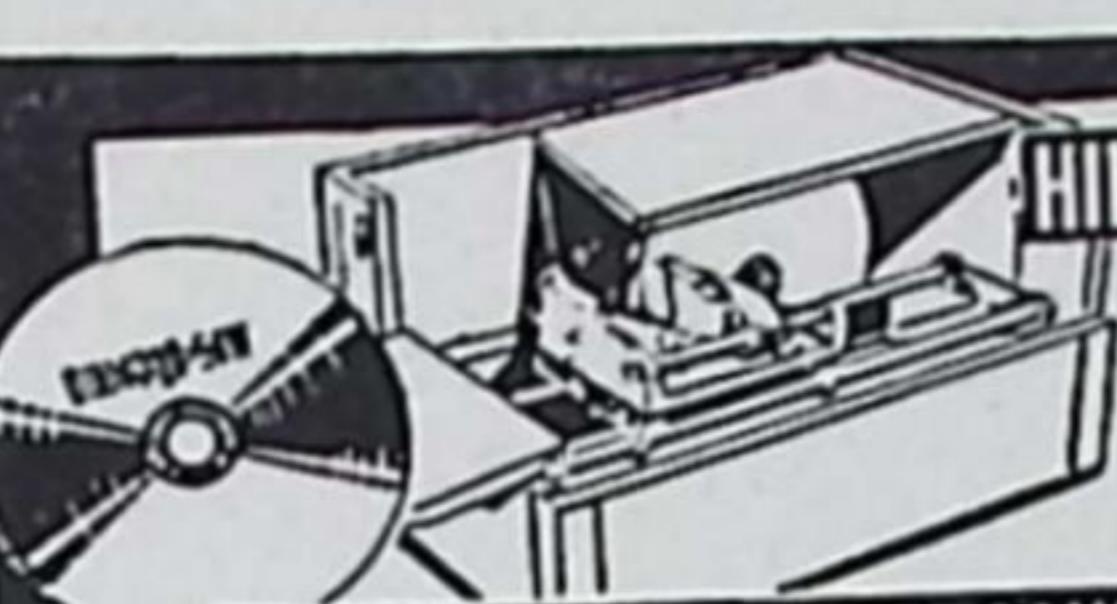
\$68.80

HILLQUIST COMPLETE FACETER

Only \$62.50 complete with 3 index plates. You can cut any faceted form quickly and easily. The equal of faceters costing twice the price.



\$62.50



HILLQUIST SLABBING SAWS

12" bench model, \$72
16" floor model, \$110
20" floor model, \$155
Real rockhounds saws favored for their big capacity and lifetime construction. "Magic-Brain" automatic feed for above \$46.35.



HILLQUIST FACETING ATTACHMENT

A fine precision instrument. Only \$29.00. For Hillquist Compact Lap Unit or for any other lap by using Adapter Socket at \$2. No better faceter made.

HILLQUIST DRUM SANDERS

The most popular drum sander made. Patented "quick-lock" screw makes it easy to change sanding cloth. Two sizes (2" x 7" - \$7) (3" x 7" - \$8). Same size arbor.



HILLQUIST COMPACT LAP UNIT

Bigger than the Gem-Master. Handles up to a 10" saw. Saws, grinds, sands, polishes, laps, facets, cuts spheres — does everything and does it better. Thousands in use. Everything included except motor at \$122.50



Before you buy any lapidary equipment - send for our big
FREE CATALOG!

FULL OF HELPFUL LAPIDARY INFORMATION - SEND NOW TO
LAPIDARY EQUIP. CO.
1545 W. 49 ST. SEATTLE 7, WASH.



HILLQUIST LAPIDARY ARBOR

Big! Rugged! Fast! Quiet! Takes 2" x 12" wheels. Valuable for professionals or anyone wanting fast, smooth grinding. Arbor only \$53.50

The Gremlin's Christmas Specials

Special No. 1: Blowpipe; large charcoal block; alcohol lamp; soldering flux; self-locking soldering forceps; No. 2 and No. 4 easy flowing silver solder. \$5.10 value, **now only \$3.95** F.O.B. Berkeley.

Special No. 2: 5" jewelers saw frame; 1 doz. each No. 1, No. 2, and No. 2/0 saw blades; ring vise; round nose pliers; chain nose pliers; flat nose pliers; burnisher; 2—half round sanding sticks; 1/4 lb. bar of jewelers rouge; 1 lb. bar tripoli; jewelers special polishing cloth. A \$15.85 value, **now only \$11.95** F.O.B. Berkeley.

Special No. 3: 1 lb. special dop wax; 12 asst. dop sticks; 5 aluminum marking pencils; alcohol lamp; 1 oz. Damascus ruby powder; 1 lb. new Whoosh powder for polishing. A \$5.75 value, **now only \$3.95** F.O.B. Berkeley.

Special No. 4: Slices and slabs of good cutting materials at bargain rates. Includes agate from Brazil, Idaho, Montana, etc. Also buddstone, verdite and many others. Our selection is guaranteed to satisfy. Total price of selection \$10.00, **now only \$5.00** F.O.B. Berkeley.

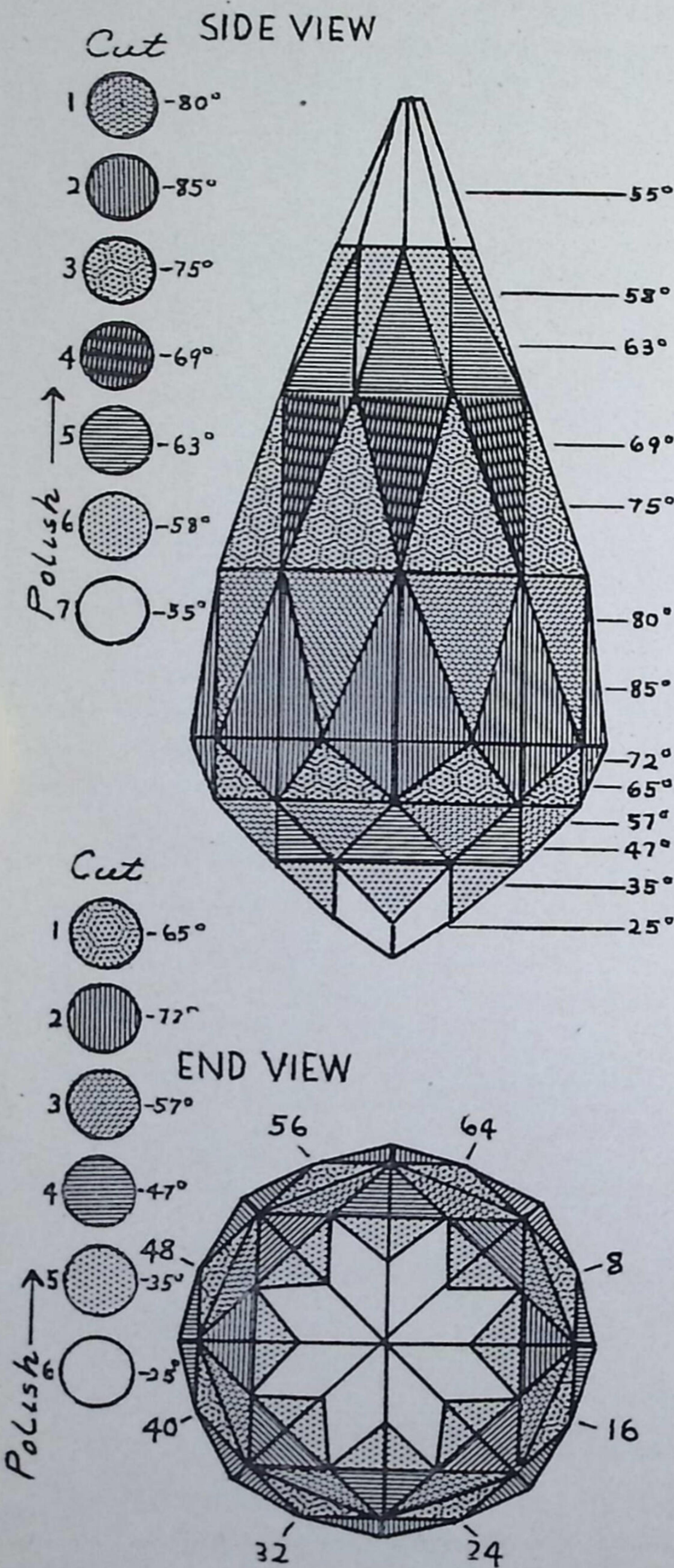
California customers please add 3% sales tax

MINERALS UNLIMITED

1724 University Avenue

Berkeley 3, California





BRILLIANT CUT BRIOLETTE

(ANGLES FOR QUARTZ)

Faceters Attention

We take pride in presenting herewith the first in a new series of facet cuts. The old series has been completed and the new series, prepared by M.D.R. Mfg. Co. (see ad on inside front cover) will soon appear in book form. The old series of sixteen cuts is available as THE BOOK OF GEM CUTS for \$2.50 postpaid from either M.D.R. Mfg. Co. or the LAPIDARY JOURNAL.

NOTE: Top, or longest end of stone, should be cut first.

ORDER OF CUTTING—TOP

GRIND 1st—Eight facets at 80° indexing 64-8-16 etc.

GRIND 2nd—Sixteen facets at 85° indexing 2-6-10 etc.

GRIND 3rd—Eight facets at 75° indexing 64-8-16 etc.

GRIND 4th—Eight facets at 69° indexing 4-12-20 etc.

GRIND 5th—Eight facets at 63° indexing 4-12-20 etc.

GRIND 6th—Eight facets at 58° indexing 64-8-16 etc.

GRIND 7th—Eight facets at 55° indexing 64-8-16 etc.

ORDER OF POLISHING

Polish in the reverse order starting with the 7th Grind, then the 6th etc.

OPTIONAL — Girdle facets may be ground first, or last, at 90° using index 2-6-10 etc. Polishing should be completed at this setting.

Top point can be ground flat in 45° angle dop to permit drilling, but extreme care is needed.

ORDER OF CUTTING—BOTTOM

GRIND 1st—Eight facets at 65° indexing 64-8-16 etc.

GRIND 2nd—Sixteen facets at 72° indexing 2-6-10 etc.

GRIND 3rd—Eight facets at 57° indexing 64-8-16 etc.

GRIND 4th—Eight facets at 47° indexing 4-12-20 etc.

GRIND 5th—Eight facets at 35° indexing 4-12-20 etc.

GRIND 6th—Eight facets at 25° indexing 64-8-16 etc.

ORDER OF POLISHING

Polish in the reverse order, starting with the 6th Grind, then the 5th, etc.

POLISH WITH CERIUM OXIDE ON A LUCITE LAP (for Quartz)

IMPORTED GEM ROUGH AND LAPIDARY SUPPLIES

JADEITE: (From Japan.) New find from a rare locality. Tough, compact, with a vitreous to pearly luster, semi-translucent to opaque, white, white and light green, white and medium green, white and dark green blanks of fracture-free material 16x14 mm. by 6½ mm. thick. White blanks at \$1.25, white and light green \$1.75, white and medium green \$2.25, white and dark green \$2.75 per blank.

LAPIS LAZULI: (From Afghanistan.) Rich royal blue in color, liberally spangled with pyrites which resemble specks of silver. It has become increasingly scarce and is now sold by the carat, which is unusual for a cabochon stone. Good quality material in small pieces from the size of a pea to the size of a peanut at \$6.50 per ounce. Takes a nice polish with chromium oxide on leather lap.

ALMANDINE GARNET: (From India.) Strikingly beautiful purple to brilliant light purple-red color for fine faceted gems (RARE). In pieces from 6 to 35 grams at \$1.50 per gram.

MOSS AGATE: (From India.) A translucent, milky-white chalcedony with inclusions of green actinolite or other minerals. The inclusions often fantastically tree and fern-like, give the gem its designation of "moss agate." Very fine solid material, plenty of green moss at \$4.50 per pound.

CITRINE: (From Brazil.) Beautiful golden honey-colored citrine for fine faceted gems, crystal clear in 7 to 65 gram pieces at 60c per gram.

TOURMALINE: (From Brazil.) The rich vibrant green that is only found in tourmaline. For cutting brilliant faceted gems. Flawless, fine color. In crystals from 1 gram to 7 grams at \$1.75 per gram.

FELKER DI-MET CUT-OFF BLADES: 6" .032 \$7.50, 8" .040 \$10.80, 10" .040 \$14.10.

THE NEW KIMBERLEY DIAMOND CUT-OFF BLADE

The entire rim of this blade is a mixture of diamond powder fused into one solid rim. When tested in industrial uses this blade outlasted 4 of the normal notched-rim blades. For a fast cutting, long life blade try a Di-Met Kimberley. 6" by .050 \$14.20, 8" by .055 \$20.00.

STATE ARBOR HOLE SIZE

WRITE FOR FREE 1951-1952 CATALOG

Lists Over 70 Varieties of Gem Rough, Lapidary and Jewelers Supplies

All Tools and Equipment Billed at Prices Prevailing at Time of Shipment.

TECHNICRAFT LAPIDARIES CORP.

3560 BROADWAY, ROOM 23

IMPORT-EXPORT

NEW YORK 31, N. Y.

PRECIOUS METALS
and
JEWELRY FINDINGS
for
Every Type of Need

Consult listing of products at right

INQUIRIES INVITED

SERVICE and QUALITY Since 1907

Sterling Silver Sheet:
All thicknesses and
widths.

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Round, Half-Round,
Square, Triangular,
etc., in all sizes.

Sterling Silver Fancy
Wires: Bezel, Bead
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etc.

Sterling Silver Find-
ings: Chain — Ear-
Wires — Tubing —
Hollow Balls, etc.

Nickel Silver Find-
ings: Pin-stems,
Joints, Safety
Catches.

Silver Solder Sheet
and Wire: Silver
Solder Flux.

Karat Gold Sheet,
Wire, Solder and
Findings.

WILDBERG BROS. SMELTING & REFINING CO.

San Francisco 2, Calif.
Department "G"
742 Market Street

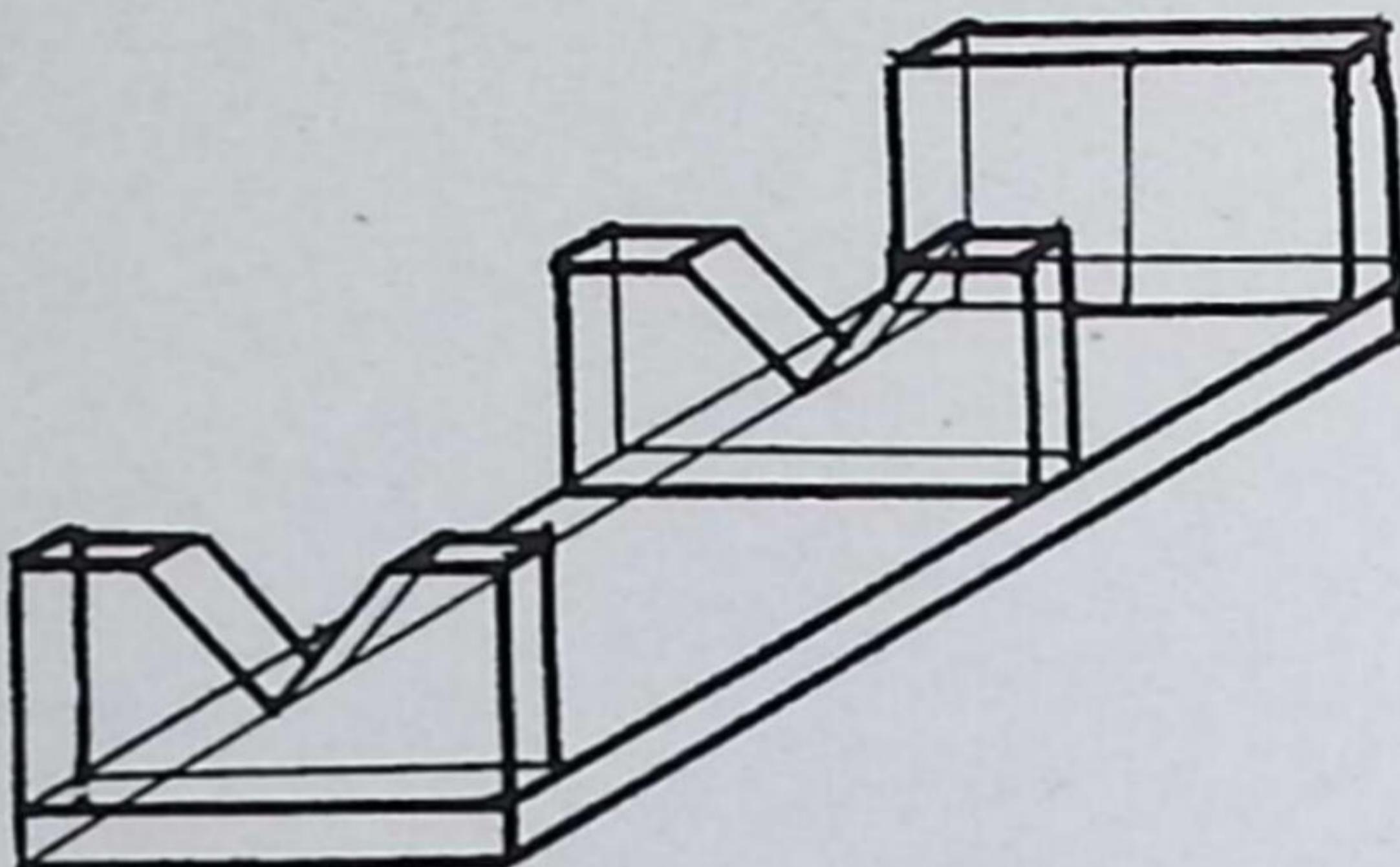
Plant and Smelter
South San Francisco, Calif.

Los Angeles 14, Calif.
Department "G"
635 South Hill St.

◆ *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.

For those who wish to "see through it all" here is the transparent V-block that eliminates much guess work.



The following *Shop Helps* were submitted by C. S. Williams of Tilicum Lodge, Medford Lakes, N. J.

I am submitting a sketch (see above) of a V-block which I use for centering stones on dop sticks. The primary feature of this block is that it is made of $\frac{3}{8}$ " lucite and it is transparent. Down the center of the foot block there is a fine line. This is in the *exact center* of the two V's. In using it one looks *through* the foot block to see very accurately if the line is in the center of the stone as he revolves the stone in the blocks.

A sheet of lucite can be cut out with a jig saw, the pieces glued together and then the whole polished on a buff.

* * *

In cutting opal one often finds small cracks that detract from the beauty of the finished gem. Some lapidaries immerse the opal in oil to make the cracks invisible. Eventually the oil works out to again expose the cracks. I have found that by heating the opal on a piece of paraffin until it melts will enable the paraffin to penetrate the cracks. If the opal is then immersed in the melted paraffin and it is allowed to cool the molten paraffin will penetrate the cracks and it will not seep out later. The opal can then be dug from the hardened paraffin, scraped with a knife, wiped with a cloth and acetone and no paraffin will adhere to the outer surface.

* * *

Hugh Leiper of Austin, Texas, who has the fine article on page 348 in this issue submits the following item.

I just finished cutting a 35.73 carat kunzite which is flawless inside, and the cutting and polishing came out as near flawless as I am able to make it. No troubles in cutting to a knife edge at all, as I cut and polish with the *lap running away from the work*, not into it. I have found that if the corner facets on an emerald cut are made first, there is less tendency of the material to spall off at the edges. I cut on 800 diamond lap at 175 r.p.m., polish on tin with Linde A at the same speed, which gives a quick and brilliant polish. The tin lap is run half wet—half dry, with very little Linde A.

O-B

BLANK MOUNTINGS

Sterling Silver-Gold Filled—10K.

*Other Blank Mountings of Distinction from
Several Leading Manufacturers*

Line includes—Rings, Pendants, Brooches, Ear Rings, Bracelets, Tie Chains, Tie Slides, Cuff Links, Money Clips, Key Chains, all with frames suitable for Agates, Jade, Wood, Plastic and other semi-precious Cabochons.

10 Karat Mountings for faceted stones such as Zircons, Alexandrites, Rutile, etc.

Complete line of findings and tools for the agate jeweler.

Headquarters for Supplies for the Jewelry Craftsman

Write for Free Price Lists

MONTANA ASSAY OFFICE

610 S.W. Second Ave.

Portland 4, Oregon



Gorgeous Flowering Rose Agate Blue Turquoise

GEMS FROM COLORADO'S TREASURE CHEST

The agate that resembles multi-colored flowers under glass
"In a Cabochon, It's the Color that Counts."

For gorgeous cabs, you can't match this new and unusual type agate with its combination of vivid colored designs that resemble blossoms, buds, garlands, wreaths and bouquets.

This is the original "Flowering Rose Agate" from Colorado, the only present known source. The best recommendations for this fascinating gem are the hundreds of satisfied users.

A FINE CHRISTMAS PRESENT FOR ANY ROCKHOUND

Flowering Rose Agate, small selected pieces assorted, lb.....	\$2.50
Flowering Rose Agate, larger, selected, assorted, lb.....	2.00
Flowering Rose Agate, field run, a whole year's cutting, minimum order 5 lbs.....	3.50
Flowering Rose Agate, slabs, assorted, sq. in.....	.50
Flowering Rose Agate specimens 3"—30" chunks (minimum order 3 lbs.) per lb.....	.75

NEW CUTTING MATERIALS AT REASONABLE PRICES

Rose Quartz—In delicate pink shades. Fluorite—predominate greens, purple, lavender, chunks from 1 lb. up (Minimum order 5 lbs of each or assorted) lb..... \$3.50

Turquoise—medium quality, good color assorted size pieces. per ounce..... 2.00
(Minimum order 3 ounces)

\$1.00 bill will bring samples for your inspection

*We Extend Holiday Greetings to Our Old and
Prospective New Customers Everywhere!*

TERMS: All materials F.O.B. Pueblo, Colo. Remittance with order. Include postage please and avoid delays. We guarantee satisfaction.

W. S. KETTERING

1901 LAKE AVE.

PUEBLO, COLORADO

♦ A Sword from Damascus

By ROBERT TESMER

Research Associate in Lapidary Arts

Cleveland Museum of Natural History

If you will place your tiger-eye back in the cigar box and wash your hands of the cerium oxide, I will tell you about the Sword of Damascus. The first time I saw the famous blade and jewelled scabbard was twenty years ago when my teacher took an excited fifth grade class for a visit to the Cleveland Museum of Natural History. The stuffed lion and a backbone of a dinosaur were full of fascination for our group of elementary gigglers, but a shining blade and pretty colored stones made us think and wonder and imagine.

The years and these pretty colored stones have been kind to me. They have helped place me in a position where I can open the silent and mysterious cases, inspect carefully, count and admire, or photograph the works of art and man.

Today, in the year of television and Koreans, I have discovered that the mysterious blade of long ago is worth about \$18,000. And so if you are interested in cabochons and imagination come with me now and take a good look at this sword and scabbard. Count the emeralds—67 and *one as large as a hazel nut*. Look carefully at the flawless white jade handle. And then there are 35 cabochon rubies and an assortment of crudely faceted tourmalines, sapphires and diamonds.

The scabbard is of an elaborate *repoussé* work with many medallions of arabesque designs. The sword's shape characterizes it particularly as it is said to have been adopted by Sultan Ghazi Nehmed Khan about 1670 as the standard shape for state purposes. It is made of the best quality Damascus steel.

In 1904 the following description of the Damascus Sword was given in a letter signed by R. S. Pardo, manager of the Oriental Museum, Istanbul, Turkey—

"Naturally the most richly decorated part of the sword was its handle. In Persia especially no cost was spared to make them as splendid as possible and

the material mostly employed for the best blades was jade. This stone which was brought from India was usually ornamented with rubies, emeralds and diamonds, set in gold. This Persian art of working jade is now lost.

"It is generally supposed that the Damascus blade is very flexible and may be bent into a circle. Nothing can be more erroneous, and many a person who has tried to bend his blade saw it snap in two in his hands to his sorrow. Although the Damascus sword is not flexible, it is the hardest kind of steel, so hard that only steel of its own kind will cut it, while the softest Damascus steel will cut all others.

"The decoration of the blades first began about the time of the Prophet during the seventh century, when slight ornamentation was produced by an incrustation of gold. In Turkey the gold decoration was neatly set into the cavities which were cut into the steel for it, so that the surface of the gold was lower than the surrounding metal. About the fourteenth century the addition of a single precious stone was added to the decorations. It was usually a ruby with a gold setting about eight inches from the handle and only upon one side. Later other stones were added, especially the emerald, for together with the ruby they form the Mohammedan colors, red and green as represented in modern Turkish flags. Diamonds, and a turquoise, were added.

"In a word there are four arts connected with the manufacturing of the Damascus blade which are lost — the hammering of the iron egg into shape; the peculiar markings; the beautiful inlay work in so hard a metal; the working of the jade handles."

When I look at the sword and when I admire the large emerald cabochon that some ancient gem-cutter fashioned, I cannot help but think of his life and of his time. I wonder if he belonged to a club or guild that met every month to discuss the various sanding methods

DIRECT FROM AUSTRALIA — OPALS AND SAPPHIRES

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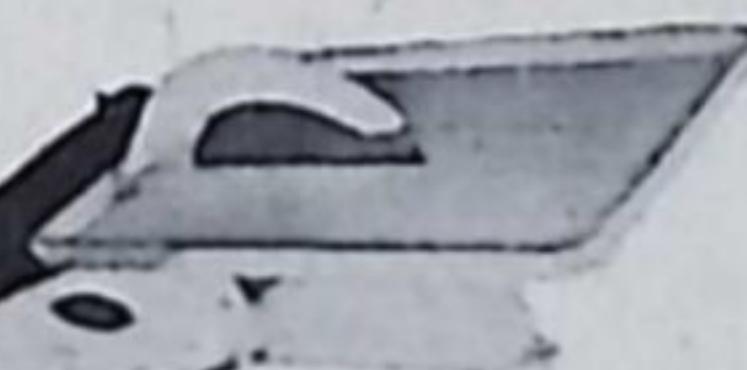
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then employed. I wonder if the club he belonged to had a president and a secretary and program problems and petty arguments between the egotistical members over leadership of that club. And I wonder if this craftsman of years ago ever dreamed that the day would come when you could take a walk in the summer sun, stop in front of a magazine stand and there find these: *The Turquoise*, *The Pearl* (by Steinbeck), *Adventure in Jade* (by Kraft).

Now, in my journey with the gems I have heard many questions pertaining to our hobby. Such questions as—What is the difference between a genuine ruby and a synthetic ruby? What makes jade green? Where does the star in a sapphire come from? Where can I buy good opal? But there is one question I have heard more than any other. It is asked by the beginning gem cutter and the experienced jeweler and it goes like this—What is the most precious gem of all? Is it a diamond, or an emerald from South America? Is it a ruby from the hill of gems in Siam?

There is an answer. Remember back to that small desk in elementary school when the good teacher opened her story book to complete a rainy afternoon. Remember a fairy tale by Oscar Wilde that began like this:

"High above the city on a tall column stood the Happy Prince. He wore a suit of woven gold. For eyes he had two sapphires, and in his sword hilt at his side there was a large ruby."

The story goes on to tell of a swallow who befriended the prince. And the Prince bid the swallow pluck out a sapphire eye and bid him take it to a woman who was poor. Then the swallow took the remaining sapphire and carried it to a student in need of food. Finally the Prince gave up his ruby and had the swallow carry it high across the city to a little girl who was ill.

And so it is from this fairy tale that we find the answer to that question you have asked or will ask some day—What is the most precious stone of all?

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♦ *Meet the Quartz-Crystal Family*

By THERON MARCOS TRUMBO
Box 503, Las Cruces, New Mexico
Member of *Dona Ana County Rockhound Club*

Papa and Mama Quartz-Crystal belonged to a very large family of rocks. They were called the Quartz-Crystal family to distinguish them from Uncle Agate's family and Aunt Opal's family, and a whole raft of cousin Quartzes. And then, too, Mama Quartz' maiden name was Rock Crystal. She came from Herkimer County, N. Y., and Papa often called her his little "Herkimer diamond." She was very lovely, so nicely shaped and perfectly clear and sparkling. Papa Quartz' name was Milky Quartz, and while he was nicely shaped, too, he didn't sparkle like Mama.

Papa and Mama Quartz had quite a huge family. First there was lovely Rose Quartz. She often bemoaned the fact that she was dumpy and didn't have Mama's nice figure. But she was so sweet and such a rosy pink, that nobody cared about her shape. She got her healthy color from eating her Titanium every morning when she was a baby crystal.

Next came Amethyst. She took after Mama Quartz, with her nice shape and her sparkling clear color, except that Amethyst was just the color of violets. She hadn't cared much for Titanium when she was a baby, but she loved Manganese, which gave her the lovely lavender hue.

Smoky Quartz was the oldest boy in the family. Mama Quartz must really have had a time at breakfast with her babies. Each one liked some different food. Smoky wouldn't eat anything but

Carbon, and so he had a grayish color.

Little Citrine Quartz started out to look just like her sister, Amethyst, but one hot summer day she got overheated and her lavender color turned to deep yellow. But she didn't care, really, because then she was different from the others, and still quite pretty, too.

The Quartz-Crystal children had another younger brother. His name was Ferruginous Quartz, but almost everybody nicknamed him Ferry. He was quite a handsome boy, with an attractive red color, which Mama Quartz insisted was because he was such a good child and ate his daily portion of Iron.

In fact, the whole Quartz-Crystal family was quite well behaved. Once in a while an argument arose and somebody got scratched, which was really difficult, because they were a hardy lot.

That's just about all the Quartz-Crystal family, except the ghost. He was known as Phantom Crystal, and he looked just like all the rest of them, except that you could look right through him and see another crystal inside.

The Quartz-Crystals were all quite important people. Papa Quartz was just content to do ordinary things, but Mama was a very brilliant actress, and little Rose, Amethyst and Citrine Quartz-Crystal all grew up to be lovely jewels. Smoky and Ferruginous, the boys, took after their father, and worked at ordinary jobs.

Papa and Mama Quartz-Crystal were certainly proud of their family.



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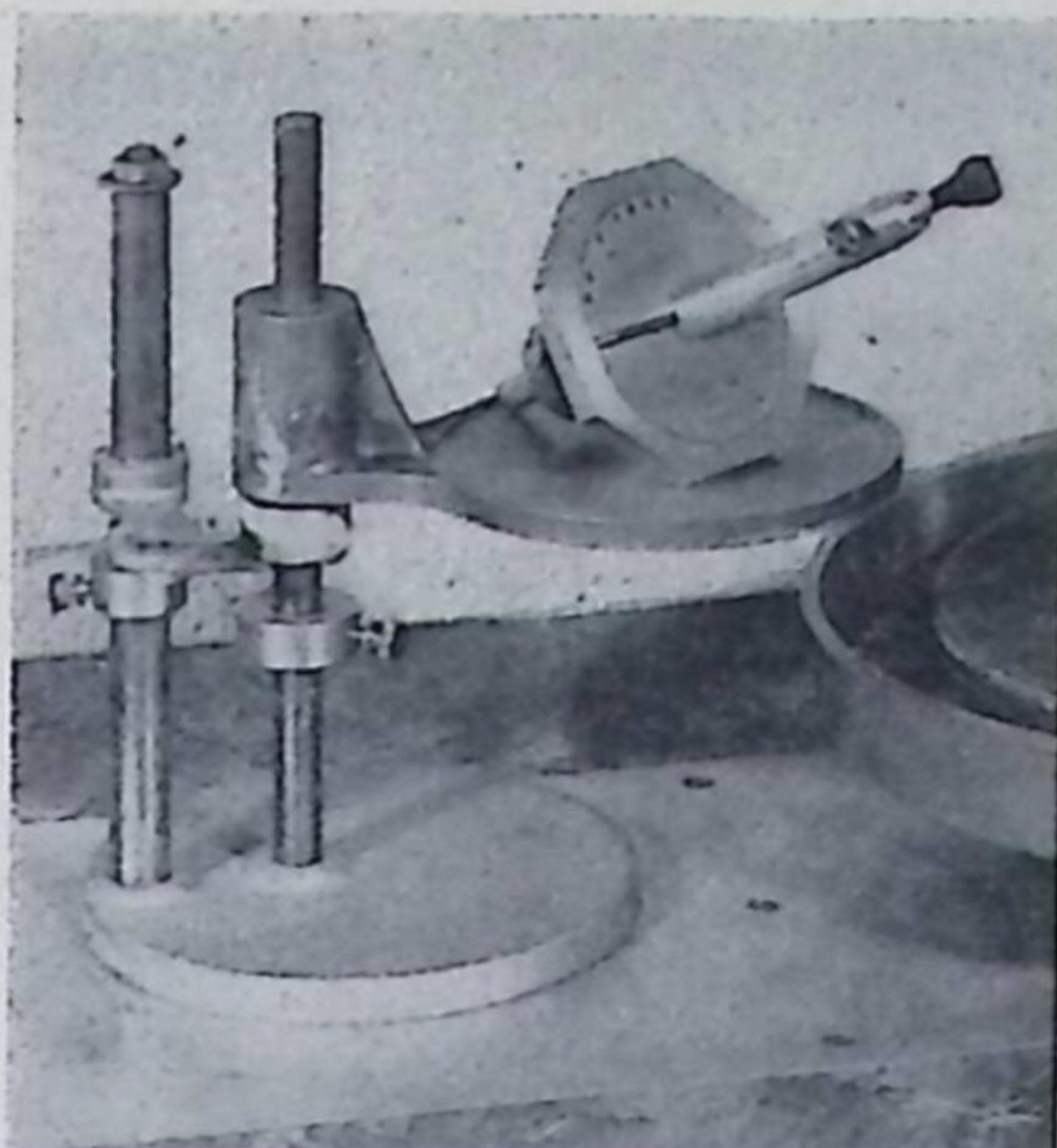
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◆ Notes on the British Museum

(As reported in correspondence from Bill Grannis)

Briefly the Geological Museum (the "British Museum") is the direct out-growth of the founding of the *Geological Survey of Great Britain*. It was established in 1835 and is the oldest national geological survey in the world. Its primary purpose was to provide accurate maps and geological information concerning Great Britain for the use of science and industry. The collection of specimens was one of the first suggestions of Sir Henry de la Beche, first Director of the Survey. By 1937 the collection was well under way. The accommodations soon proved inadequate and it was moved to a new location in 1851. This again became too small after the passage of years and it was finally moved to its present location in 1935.

The present building is a large three floor affair with plenty of display space. Exhibits cover minerals (specifically British), industrial minerals such as building stone, a gemstone collection, fossil collection and a considerable number of models and dioramas depicting various features and scenes of geologic significance.

The visitor, at least an American, will probably have several distinct impressions. The first over-all impression is apt to be one of confusion. The Museum does not adhere to the familiar Dana system of classification in its displays but prefers to group minerals of elements, such as iron in one case, copper in another etc. The effect on an addict of Dana is that of a hodge-podge that would take years to sort out. The section dealing purely with British minerals is somewhat the same except that here it is case after case containing the same minerals. There is just too much of each item.

As you come away you will reflect a bit sadly that for a Museum established well over a hundred years ago, and with the tremendous resources of a world wide British Empire behind it, the result is not quite as spectacular as you had hoped. It's not comparable with our Denver Museum, but then few are.

The general character of the geological collection, aside from the gem stones and the exceptions noted above, is about the same as most museums. In general there are the same rocks and minerals and not too much that is really outstanding. If you get there, the one thing I would suggest as a must is the Wiggins Collection of micas. I consider this really outstanding. There are samples of all the micas but the thing that will take your eye is the size. There is one tabular piece that I estimated at about 14" across and two inches or more thick. There are numerous large sheets, mostly thin but running 2½ to 3 feet across. You're on your own for the rest of the ore and economic mineral specimens. The first floor is largely taken up with the gemstone collection, both precious and semi-precious. Synthetics are also covered in almost all cases.

The entrance to the gem bay is dominated by large quartz crystals, both clear and smoky, two large stalagmites, one sliced to show the interior structure, and a six-foot globe showing the earth's geology on a scale of 1 inch to 112 miles.

Back of this entrance the gem cases are arranged and are quite complete as to variety. There are all the usual gem stones and cases that work down through the range of the feldspars, epidote, fluor-spar, alabaster, calcite, kyanite, diopside, meerschaum, amber and serpentine.

A description of the exhibit case by case would run into a considerable book but a few things caught my eye. One of the first cases seen contains the Whitlaw collection of agate. There are several cases of this collection and the items are beautifully done and of considerable variety. The one thing that left me cold was that I am pretty certain that the bulk of the display is dyed agate which I do not care for personally. When agate like Priday Ranch and Texas Bouquet can be had I see no reason to try to improve on nature.

Further along in the quartz minerals

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was something so unusual to me that I hesitate to mention it for fear I'm wrong. What I think I saw was a quartz crystal five or six inches high by perhaps an inch and a half. It was clear except that it was a phantom and the phantom was amethyst! I've asked competent mineralogists and they agree that they have never heard of such a thing.

Also included in the quartz minerals is a clear 4" sphere mounted to show the double refraction. And again there was a dodecahedron about 1½" with each face beautifully carved with a sign of the Zodiac. This was labeled as Russian and it was certainly a nice piece of work.

Farther along were the opals. These would have been excellent but I had the feeling that Australia should have dug up something a bit bigger and better. I have seen both in Idar-Oberstein. As a matter of fact I have seen bigger and better of a good many of these gems in Idar.

The fluorspar exhibit was and should have been quite good. There were a number of carved pieces and one could readily appreciate the difficulty of execution on these if familiar with the mineral. The best of the spar is called "Blue John" and is outstanding. The garnets were quite complete and the collection had many good pieces. The tourmalines were good and interesting as always. I was pleased to note that the best crystals were labeled from San Diego County, Calif. and presented by Adolph Tanburn.

In conclusion I should in all fairness mention that criticisms have been based entirely on my own preferences and even should they all have validity the British Geological Museum is well worth a few hours of your time if you get to London.

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Junius J. Hayes

By LELANDE QUICK

A short biographical sketch of the new President of the American Federation of Mineralogical Societies

In the belief that our readers would be interested in knowing the background of Mr. Big in the mineral society field we have interviewed Mr. Junius J. Hayes by correspondence. Mr. Hayes, whom we like to call "Genial Junius" because of his affable nature, was elected to the office of President of the *American Federation of Mineralogical Societies* at the Federation's convention in Tacoma, Wash, early in September.

Mr. Hayes has long been interested in the earth science movement and he is a lapidary from the early days. In 1939 about two dozen persons, interested in all phases of earth science, met in Salt Lake and organized the *Mineralogical Society of Utah*. Mr. Hayes became its president for nine consecutive years between 1940 and 1949. He had to build his own lapidary equipment in 1939 for almost none of it was then available commercially. In 1946 he became president of the newly formed *Rocky Mountain Federation of Mineralogical Societies*.

When we asked Mr. Hayes which branch of the earth sciences interested him most he supplied a fine answer, and indeed a tactful one. He writes, "when asked what part of the hobby I like best my answer has always been the many fine people associated with it and in promoting organizations for its study and pursuit."

Mr. Hayes' interest in rocks has been lifelong. His mother tells that as a boy he was always gathering pretty rocks and storing them in a closet in his bedroom, which he termed his "museum." Two neighbor boys also had museums and the three would exchange specimens. Most of the items in these museums were rocks and ore specimens.

After graduation from college as a civil engineer much of his work was connected with mining. For the past 25 years Mr. Hayes has been on the faculty of the University of Utah in charge of

research on astronomy and teaching that subject and mathematics. During these years he has completed many courses on geology, mineralogy, chemistry, mathematics and physics and he has always been a profound student.

In a recent letter Mr. Hayes writes—"regarding the *American Federation of Mineralogical Societies* I should like to say that its primary purpose is a correlating agency of the five great regional federations. It stands in regard to these in much the same way that the regional federations stand in regard to their local societies. Just as the regional federations have, through their conventions, broken down State barriers within the federation so has the national organization eliminated federation barriers and really nationalized the whole field of amateur mineralogy and geology. Since its initial organization here in Salt Lake in 1947 (completed in Denver the following year) much good has resulted.

"To list some of its accomplishments, many of which are permanent or still under way, I might mention the legislative work with Congress to eliminate the handicap of Canadian participation in our mineralogical conventions; the present effort to get a nation-wide directory of all the members of all the earth science groups and classify them (being done with the help of the regional federations); the national essay contest; the organization of an educational program to assist the nation's schools in the presentation of earth science subjects; cooperation with regional federations in their conventions by helping with programs etc. etc. Anyone who has consistently attended national conventions cannot help but notice the vast improvement in programs and exhibits over those of five years ago. They can still be improved.

"Since the great majority of those interested in mineralogy and geology are either amateurs or semi-professional

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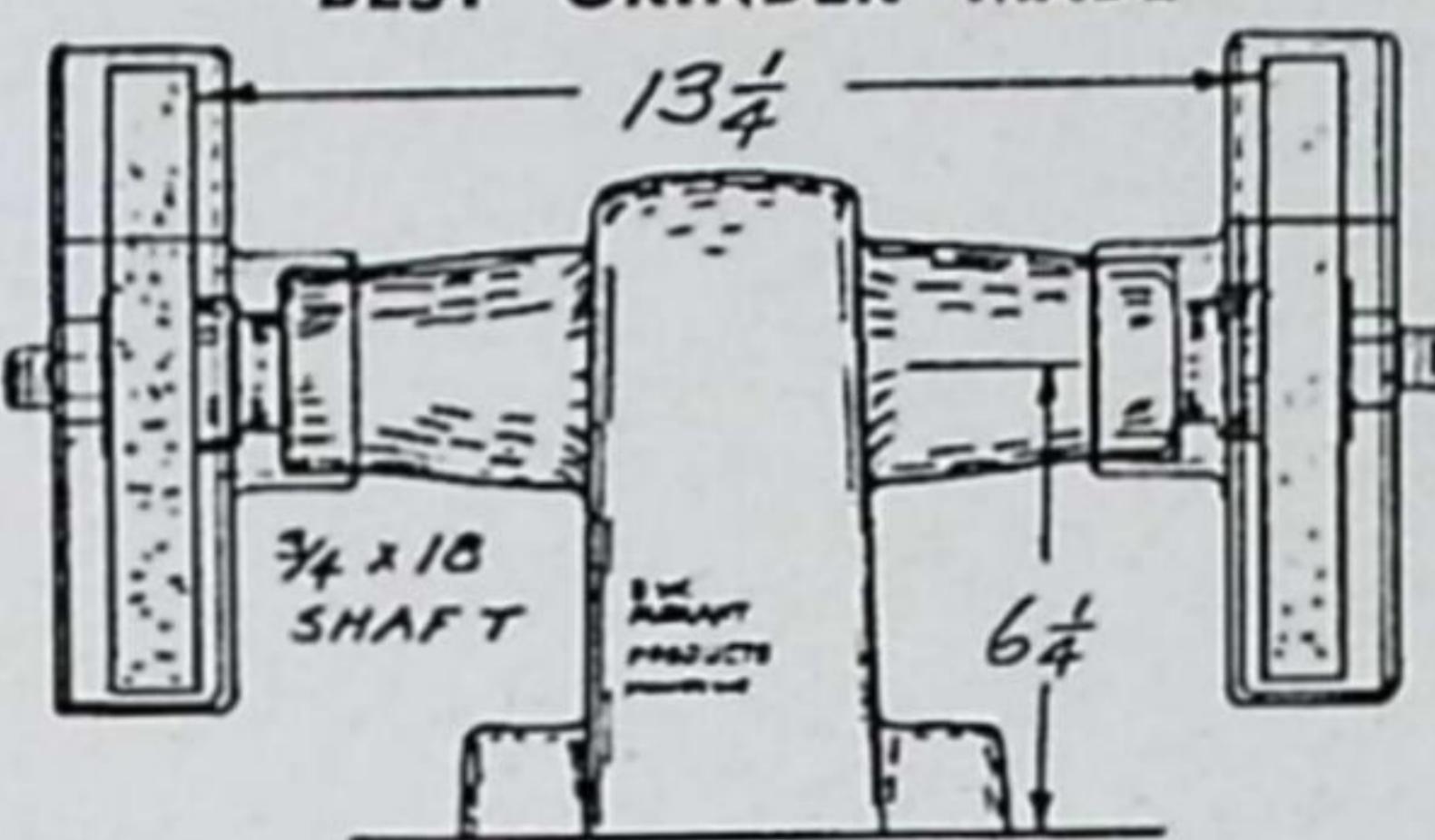
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people, it was and is the purpose of the great American Federation to keep the organization on this level. We realize that there are many more people of this classification outside of the mineralogical societies than there are in them, although we number about 12,000. I feel sure that I promise everyone who is 'out' that affiliation with a society will bring rich rewards that are not obtainable in any other way. Think of the fine programs, the systematic field trips, the opportunity of being with 'kindred spirits' to help them as they help you. Remember that a hobby is worth more than two doctors, a psychiatrist and a minister in keeping one healthy, well balanced and happy. Have a hobby for just a few years and see how true this is. If at the end of that time you do not agree with me I'll eat the foregoing four people."

Mr. Hayes is a member of the Latter Day Saints (the Mormon Church) and he typifies the influence on his life of that Church's symbol—the bee hive. He was Mayor of his town for two terms, on the school board four years, president of the Commercial Club 6 years, president of the Farm Bureau 6 years and active in Boy Scout work for many years. Besides being a member of the federations and his own mineral society he is also a member of the Wasatch Gem Society, the Astronomical Society of Utah (of which he was President for 4 years), the Utah Academy of Sciences, Art and Letters and the Utah Audubon Society. In addition to receiving the publications of the organizations to which he belongs Mr. Hayes subscribes to 14 other scientific magazines. "It costs money to do this" he says "but nowhere else do I get so much satisfaction per dollar as I do here. I think the main purpose in life is to get the most legitimate enjoyment possible while you are here to get it. I have been a subscriber to the *Lapidary Journal* since its beginning and have every issue to date. It is the ace magazine among the earth science publications and the reason its subscription list is so large is because it gives to the people more nearly than the other journals the things they are most interested in and the excellent way it is presented."

Mr. Hayes was born at Pleasant Grove, Utah on October 20th, 1885 and is "looking forward to death some-

where out in the hills about 1975," he says. He graduated from Brigham Young University in 1907, from the University of Utah in 1911 and attended the University of Chicago in 1934. Besides teaching for 25 years at his University he taught in High School for 10 years.



Junius J. Hayes, President American Federation of Mineralogical Societies.

On August 28th, 1912 he married Genevieve Spilsbury. From this union came a fine family of three sons and two daughters. Two of the sons are graduate engineers from both the University of Utah and Stanford University. One son is a Mining Engineer and the other is a Mechanical Engineer. The youngest son is now a Junior at the University of Utah and he is studying architecture. Both daughters are university graduates and married to doctors —one to a Doctor of Medicine and the other to a Doctor of Philosophy. So far seven grandchildren have arrived upon the scene.

If ever anyone needed evidence of the good result of living in a land of equal opportunity for all and freedom to worship as one pleases they can surely find it in the busy and successful life of Junius J. Hayes. The organized mineral and gem hobby is in good hands.

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Gems From The Mail Bag

There really isn't any need to tell you what a fine job you are doing. I have learned many things from your little magazine in the time you have published it. I don't agree with everything in it but I sure love to read it from cover to cover. Leslie Vance, Phoenix, Arizona.

Your magazine is worth many times the price just for the knowledge a person should have regardless of their hobby. Curtis H. Williams, Turley, Okla.

Just looked over your October issue. It has some of the best articles I have ever seen. I believe this will be your outstanding issue this year. Ed. Foerster of *J. J. Jewelcraft*, Los Angeles.

You made a statement at the Compton show that you will buy many back numbers. I can't imagine what kind of a person would sell their copies but our personal regard for the value of our *Lapidary Journals* is that no one has enough money to buy ours. Dorothy J. Gungle, Inglewood, Calif.

I continue to enjoy your excellent magazine and expect to as long as I have eyes to see. Paul Jordan-Smith, Literary Editor of the *Los Angeles Times*.

I don't know how you do it. You always seem to know, better than we do ourselves, what rockhounds want to read about and what will help them most. Mrs. Packard Cook, Leicester, Mass.

The *Lapidary Journal* has always been good since the very beginning and it has kept pace. Other magazines simply do not compare when it comes to gem cutting. William T. Baxter, Bethesda, Md., Author of *Jewelry, Gem Cutting & Metalcraft*.

As a new subscriber to your wonderful magazine I wish to take this opportunity to tell you that I get more pleasure from the *Lapidary Journal* than any other publication I have ever received. Now comes the "but"—why waste good space printing letters like this one and the others? That one page is the only one in the book that we can get along without. This is the first fan letter I have ever written but I have a soft spot for anyone whose name starts with Q anyway. F. E. Quaintance, Cuyahoga Falls, Ohio. (Editor's note: Gee, thanks Mr. Quaintance. We have often thought of eliminating the *Gems From The Mail Bag* section but we find that it is our personal favorite, which is pardonable and certainly understandable. We note that the magazines with circulations in the millions put their letters right up front in their magazine, even before their table of contents. And speaking of people whose name starts with Q—have you ever had people recording your name and address stop and ask you how to make a capital Q? So seldom does anyone have to write a capital Q that it is our experience that fully half the people in America do not know how to write it. We just tell them to "make a big 2.")

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THE NEW LAPIDARY ASSOCIATION AT LAST

In order to present both sides of a
much discussed question the *Lapidary*
Journal invited its readers to submit
manuscripts on the subject of associa-
tion of the lapidary societies into one
group for the betterment and furthering
of their interests. In the February 1950
issue we printed a fine article entitled
No Association Is Needed by Eldon E.
Soper. In the following (April) issue
we published *Association Now* by Presi-
dent Victor Gunderson and Ben Beery
of the *Los Angeles Lapidary Soc.*

Several meetings of lapidary groups
in and around Los Angeles were held
and a constitution and by-laws were
written and approved by twelve soci-
ties. The dominant force in the move-
ment was Ben Beery, who was ap-
pointed a Judge of the Municipal Court
about that time. Mr. Beery then be-
came ill, an illness which has continued
to the present. While he has improved
a great deal his doctor did not think he
should continue with so many activities.
In the meantime the final organization
was postponed. With a growing belief
that the lapidary interests should be con-
solidated in a large show at an adequate
location it was decided to postpone the
matter no longer and final organization
was completed at a meeting on October
24th.

The following officers were elected:
Dan White as President. Mr. White
was the first president of the *Glendale*
Lapidary and Gem Soc. Victor Gunder-
son is First Vice President. He is a
former president of the *Los Angeles*
Lapidary Soc. Robert Benefiel is Sec-
ond Vice President. He was the first
president of the *Compton Gem and*
Mineral Club. Jessie Chittenden, first
president of the *Pasadena Lapidary Soc.*
was made Secretary and Harry L. Asha-
branner of the *San Gabriel Valley Lapi-
dary Soc.* was made Treasurer. The
Historian is Glen Elsfelder of the *Holly-
wood Lapidary Soc.* The Executive
Committee is composed of Jane Paul of
the *Long Beach Mineral and Gem Soc.*
Harold Hagen of the *Santa Monica*
Gemological Soc., Belle Rugg of the *Old*
Baldy Lapidary Soc. and William Steph-
enson of the *Hollywood Lapidary Soc.*

The Association is anxious to have
inquiries from any earth science groups
emphasizing gem cutting. While local

at this time it is hoped that a national organization will develop in the near future. Inquiries may be addressed to Jessie Chittenden, Secretary, 401 Puna-hou St., Altadena, Calif.

* * * * *

THE "SUPER-DUPER"

(As told by Clay E. Elliott, San Carlos, Calif)

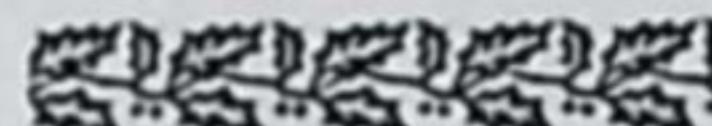
For the benefit of those about to engage in the fascinating hobby of collecting rocks, may I offer the advice of one who has observed the operations of this genus homo throughout the year. Here's what I have to offer. By all means provide yourself with a "super-duper." Now a "super-duper" is your outstanding specimen; something that looks awfully good to you. Just put this little old rock in your pocket and the next time you attend a meeting, or when there is a possibility of meeting another rockhound and the conversation begins to revolve around rocks, as it is sure to do, just reach in your pocket and casually, with as much of an air of sang froid as possible, produce your little old "super-duper." Nine times out of ten it'll knock them for a row. Immediately they'll want to know where you got it. And do you tell them? Absolutely not. Just force a wan little smile, roll your eyes and begin, "Well I,"—and stop. Try to leave the impression that its duplicate would be hard to find; its place or origin a mystery or, like Barnum's wild man, it was imported at the cost of forty lives and forty thousand dollars.

Now there is only one contingency you must guard against and that is that some other fellow may be laying back with his "super-duper," which could be more outstanding than yours. In this event, retrieve yours as quickly as possible and, like MacArthur's old soldier, just "fade away." But by no means give up. Wait for a chance to reverse the situation and entice him to produce his first and then should you have one more outstanding. Oh brother, what a grand and glorious feeling!

I realize that I could be paid considerable money for this advice, but out of a generous feeling for my fellow collectors, I offer it without charge. It might be called the game of super-duper and in the colloquialism of the present generation it's the "berries"—when it works.

(In Southern California we call the "super-duper" a "braggin' rock."—Ed.)

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Aquamarine—light blue pieces, grade B, not completely flawless but will cut brilliant sparklers—per gram	.75
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over $\frac{1}{2}$ carat—per carat	.85

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AN OPEN LETTER TO MR. HARRY ZOLLARS

Dear Harry:

Having once spent a day at the site of the diamond mine at Murfreesboro, Arkansas, I feel that I now qualify as an expert on diamonds and I therefore hasten to explain the "phenomenon" related by you in the October *Lapidary Journal*.

Knowing how much time you have spent in the vicinity of Elephant Butte dam in New Mexico, and also knowing about the olivine crystals that you have collected while there, I hasten to point out the close relationship between olivine and the peridotite formation in which diamonds are born. In other words, I am suggesting that sometime you unwittingly either picked up or acquired a small piece of this peridotite formation and tried to slice it in your diamond saw. During this cutting operation you seeded the sludge in your coolant tank with the material in which diamonds are conceived.

Then, during the conjunction of the Harvest Moon with Mercury and Pluto certain tetrads with a valence of four streamed from the Alpha Aurigids across the magnetic declination of El Paso and Sungei Gerong leaving the analemma at Valhalla thus providing the ectoplasm necessary to orient the "C" axis with the hypotenuse of the characteristic of the logarithm divided by the mantissa thereby forming the idiomorphic crystals erroneously identified by you as diamonds.

The resultant crystals that you have are more properly described as manana pseudomorphs after aversion to labor. Tell Jasper Jane that, if she wants to get rid of them, to soak them in buttermilk for 24 hours!

DOMER L. HOWARD, Editor
Sooner Rockologist
Bulletin of the *Oklahoma Mineral and Gem Society*.

FALL CROP OF NEW CATALOGS

Several new catalogs have crossed our desk which we believe should be in the hands of our readers. J. J. Jewelfraft, 2732 Colorado Blvd., Los Angeles, has a new catalog on Jewelry Tools alone. They have two more catalogs coming off the press about the time this magazine appears. These will be on Blank Mountings and Lapidary Equipment and Supplies. These catalogs sell

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Merry Christmas

to our host of friends

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Polka Dot Priddy Ranch....	1 pound	.75
Obsidian Silver Sheen.....	2 pounds	1.00
Obsidian Gold Sheen.....	2 pounds	1.00
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diamond saw. We can slab or chunk up
to approximately 10" wide and 20" high,
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too large for your saw chunked to fit so
you can work them up. Price 7½c per
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This is a factory built saw and every
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for 25c each but each catalog includes
a coupon worth that amount on a first
purchase from the new listings.

Mr. Green of the Gem Exchange in
Bayfield, Colo. has his new gem and
materials list for 1952 in the mail. He
probably has the largest mail order list-
ing in the country and if you are not on
it it would be smart to send him a postal.
No charge for his list.

Schrader Instrument Company, Inde-
pendence, Iowa, has their new catalog
of materials and tools for the home
craftsman and hobbyist ready for mail-
ing. This big 90 page catalog sells for
50c. It lists tools for *all* hobbies and it
is a good reference book for the hobby
library.

* * * * *

CHARLES K. WORTHEN PASSES FROM OUR SCENE

Charles K. Worthen, proprietor of
the Michigan Lapidary Supply and Re-
search Company of Birmingham, Mich.
(near Detroit) died after a long illness
on October 19th. Only a couple of days
before we had received a letter from his
wife Marie in which she said—"it was
nice of you to inquire about Charles.
It isn't easy for me to give you any
definite information on his condition.
We had worked too hard, too many
hours last winter; Charles designing new
equipment which we expected to intro-
duce at Oakland. In May he developed
a "bundle block," a blood clot in the
heart. Four weeks in the hospital; by
mid-August he visited the shop an hour
a day for three days and had a relapse.
Since then it has been a series of ups
and downs . . . last night (the 12th)
was a difficult night and I stayed with
him all day yesterday. What is ahead I
do not know . . . but I don't believe he
is making any progress."

Mr. Worthen was born on June 29th,
1898 at Swanton, Vt. As an engineer
and a leading expert on the use of dia-
mond tools in industry he early became
interested in machinery for the amateur
lapidary. He organized his company
several years ago and built up a con-
siderable volume of business with the
amateurs all over the country.

The Editor first met Mr. Worthen
when the two of us happened in for a
visit at the same time with Dr. Henry
Dake, Editor of the *Mineralogist*, in
Portland. When the *Michigan Minera-
logical Society* characteristically declined
to recognize the growing interest of

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Others up to 30" diameter

NOTE: Prices in our last ad were wrong because of our own error. Please pardon us.

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many of its members in the lapidary art Mr. Worthen invited us to crystallize that interest by helping to organize a new group which has since become one of the leading lapidary societies in the country—the *Michigan Lapidary Society*. On October 19th, 1949, exactly two years prior to the day of his demise, we had dinner with Mr. Worthen in his home and there followed a meeting at the Cranbrook Institute of Science in nearby Bloomfield Hills. After our lecture on the *Second Stone Age* a recess was declared. Following this a discussion was held with the considerable crowd attending and a temporary committee was appointed by the Editor to organize the new lapidary society.

Mr. Worthen did not live to see his dream come true—the case of the dog wagging the tail. For the *Michigan Lapidary Society* has sponsored the Hobby and Gift Show in Detroit, taking place on November 10th through the 18th from 1 to 11 P.M. daily including Sundays. The usual procedure is for a group to commercialize a hobby show, as in Los Angeles, and invite the lapidary groups to exhibit, their only expense being a few ribbons. The Michigan group decided to turn this procedure around and sponsor the hobby show themselves. From the admission charge of 50c it was agreed to make equal substantial donations to the Boy and Girl Scout organization in the Detroit area, these proceeds to be used for lapidary and silversmith equipment.

Mr. Worthen led a highly successful life . . . success being achieved by the great number of people who will remember that "he helped me a lot." For the making of mere money is not success; the development of human values is.

CHRISTMAS SPECIAL

We have had so many requests for cutting material that we finally decided to meet the demand. We have been accumulating nice cutting material for several years. Now we have installed some new equipment and are cutting it up for the trade.

We offer 100 square inches of assorted slabs for \$5.00. Strictly Arizona in bright colors and unusual material.

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INDIA RULER'S FAMILY GEMS WILL BE SOLD

(As reported by the *Los Angeles Times*)

The Nizam of Hyderabad is putting the fabulous family jewels on the auction block—he says he'd rather have the cash.

He plans to save only a few treasures, as family heirlooms and for use on state occasions.

The rest, filling three trunks, goes to the highest bidder. Total value is put at \$28,000,000.

Included in this glittering mass is the 180-carat Jacob diamond, one of the largest in the world.

The enormous egg-shaped diamond, large as a crystal paperweight, was bought by the Nizam's grandfather in America 75 years ago. Dealers fear it is too big to find a buyer today. Its value is estimated at between \$3,000,000 and \$4,000,000.

There are few men in the world who could pay such a price for a single jewel these days. But unless a buyer is found it may have to be carved up into several lesser diamonds of more marketable value.

The Aga Khan, on a visit to Hyderabad, is understood to have told the Nizam that he would be ready to pay \$2,000,000 for the diamond.

But unless the Aga Khan puts in a bid for it when it comes up for sale, or unless some American millionaire comes forward, the Jacob diamond may be doomed to dissection.

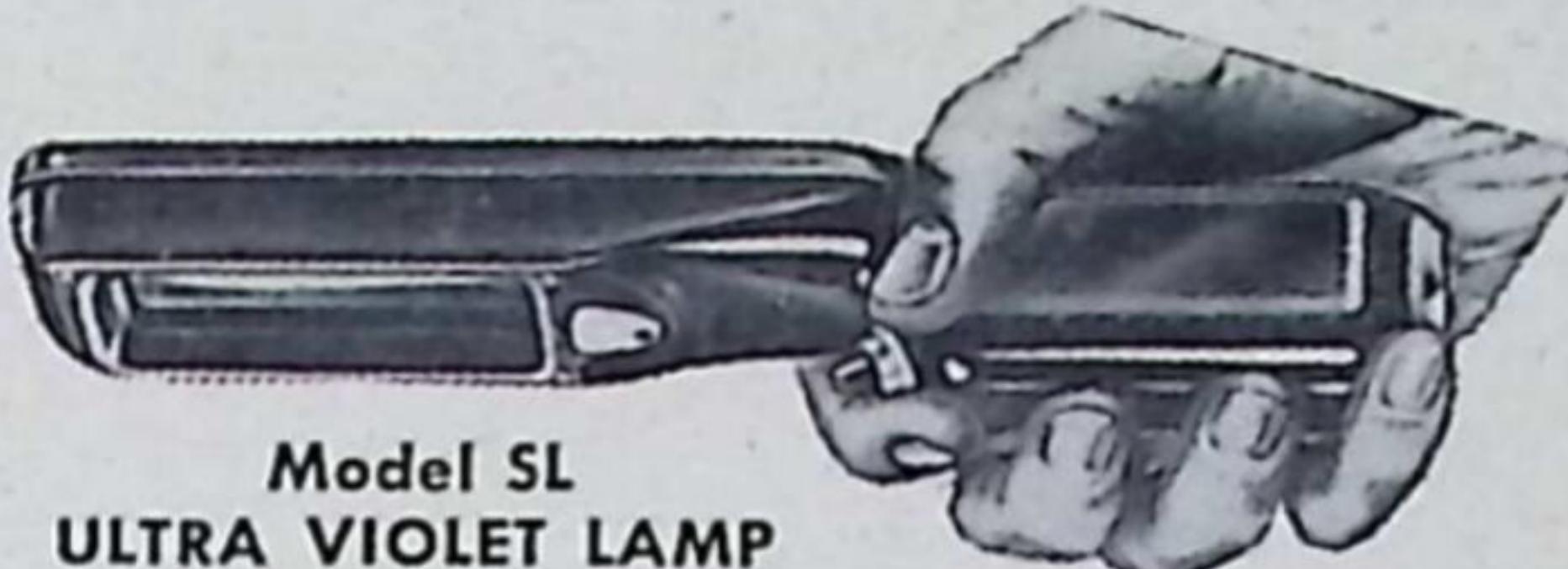
Although he owns several strongly built modern safes, he always has kept the jewels in three old tin trunks, covered with cobwebs. The trunks were kept in a room of Hyderabad Palace, to which the Nizam had the only key. The jewels were rarely shown to anyone.

Pearls lay jumbled in cardboard shoe boxes, to be brought out into the light from time to time so they would not lose their color.

The Nizam himself has always lived in spartan simplicity, shuffling through his palace halls in shoes split at the seams, wearing threadbare clothes.

The sale of the jewels probably will take place either in Paris or in Switzerland, where import conditions are most favorable.

Duties on jewelry imported into the United States are at present too high to



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allow the Nizam's treasures to be auctioned there.

Rubies, pearls, diamonds, emeralds and other precious stones from the Nizam's collection will be up for sale.

They include some of the finest emeralds in India, for green is the Hyderabad royal family's religious color.

Now in the vaults of a Bombay bank, they will be put on the market gradually as conditions offer the most favorable prices.

The Nizam decided to form a trust for his jewels, with the government of India as one of the trustees, after the merger of his state with the Indian union and the end of his autocratic power.

It is curious that the Jacob diamond, most famous jewel in the Nizam's possession, should have come originally from South Africa and not from India. For Hyderabad is the home of the famous Golconda mines which have produced some of the largest diamonds in the world.

The Koh-i-noor (Mountain of Light), now in the British crown jewels, was found in the mines there in 1656 and passed through the hands of Moguls, Afghans and Sikhs, before it was taken by the British on the capture of the Punjab.

Another enormous Golconda diamond, Star of the South, was given to Catherine the Great by a Russian prince, eventually came into the hands of Napoleon III and was bought back by an Indian Prince, the Maharajah of Baroda.

Today, the pear-shaped Star of the South forms part of a diamond necklace worn by the Maharajah of Baroda on state occasions.

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All choice pieces. Fiery—up to \$25.00 each. Schools, silversmiths, goldsmiths, jewelers, manufacturing jewelers, collectors—write for our lists on cut stones. All types of cut stones. All colors synthetic, genuine, faceted, cabochon, hearts, crosses, etc.

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SPARKS FROM THE EASTERN FEDERATION CONVENTION

As reported by Harry L. Woodruff, President of the *Eastern Federation of Mineralogical and Lapidary Societies*

After the smoke of battle has cleared away and we begin to look around, we find that what we thought was just a lot of hard work has resulted in some real worthwhile dividends. We are certainly proud of David E. Wallis, our Convention Chairman, and his committee. They assembled a galaxy of outstanding speakers who lectured on subjects that drew attendance from all parts of the United States and countries as far away as Japan.

Here is a list of these speakers and the subjects they lectured on:

Some Lapidary Problems by Commander John Sinkankas.

Minerals of the Washington Area by Dr. Chas. Milton, U.S.G.S.

Polishing Diamonds by the Electric Arc by Dr. Karl Nefflin of the Bureau of Standards.

X-Ray Identification of Minerals by Dr. George Switzer.

Igneous Nodules by Frank L. Hess.

Trials of an Amateur Lapidary by Louis Eaton Shaw.

Meteorites by Mr. E. P. Henderson.

Spheres and Cast Bronze Figurines by Leo Houlihan.

Radioactive and Rare Earth Minerals by Dr. John P. Marble.

Minerals of Cornwall by John S. Albanese.

Minerals of Connecticut by Dr. J. Frank Shurer.

Paracutin Volcano by Dr. Wm. F. Foshag.

An outstanding feature of the Convention was a guided tour through the Mineral Halls of the National Museum by James H. Benn of the Museum staff. No finer collection of minerals is to be found any other place in the world. (A full description by Mr. Benn appears in the October 1951 *Lapidary Journal*.) The non-commercial exhibits were housed in the rotunda of the National Museum. The top award for the best mineral exhibit by a society was won by the *Mineralogical Society of the District of Columbia*. The top award for the best lapidary display by a society was won by the *Gem Cutters Guild of Baltimore, Inc.* These awards consisted

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of two beautiful silver bowls properly engraved and were donated by two members of the Eastern Federation who remain anonymous.

The commercial exhibits were held in the five Presidential Parlors of the Willard Hotel. Paid registration was just under 200 while more than 1000 visited the displays. The banquet was held in the Crystal Room of the Willard and covers were laid for 100. The banquet program consisted of the presentation of a gavel to the President by Phil Cosminsky, President of the *Mineralogical Society of the District of Columbia*. The gavel was made by Mr. Cosminsky and has the shape of a rockhound pick. The hammerhead is of walnut and the handle is of fiddle-back hickory, a very rare wood. The President remarked that it was very appropriate as the pick has authority in the open when in the hand of a rockhound and is the badge of authority in the hand of the proper officer at the deliberations of the Eastern Federation Executive meetings.

The Election of Officers resulted in the retention of Mr. Harry L. Woodruff of Washington, D. C. as President, election of Mr. White of Newark, New Jersey as Vice-President and the re-election of Mr. B. J. Chromy and Mr. James H. Benn, both of Washington, D. C., as Secretary and Treasurer respectively. A new office was created, that of Executive Vice-President, and Mr. William B. Aitkin of Westwood, New Jersey was elected to that office. Mr. White is President of the *Newark Lapidary Society* and Mr. Aitkin is President of the *North Jersey Mineral Society*. The next Convention will be held in Newark, New Jersey at a date to be announced.

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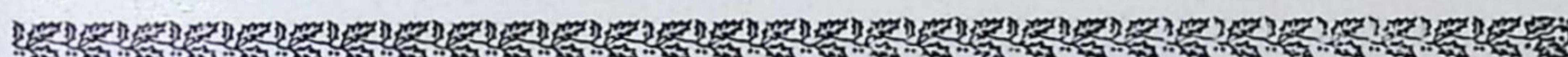
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Calendar of Events

December 1-2 — Death Valley Encampment (Calif.) for rockhounds, square dancers and artists. Sponsored by the Death Valley '49ers. Take your gems and minerals for competitive displays.

December 7th, 1951 through February 25th, 1952. At the Metropolitan Museum of Art in New York City. Exhibit of sculpture open to the public and including Donal Hord's famous jade sculpture of THUNDER. Here is an opportunity for our eastern readers to see the most discussed carving of the last several years, given the top award of the American Academy of Arts and Letters as the best piece of American sculpture in the last five years. Full details and pictures of this noted work have appeared in the *Lapidary Journal* on several occasions.

February 23rd and 24th, 1952—First Annual Midwinter Desert Rockhound Fair at Palm Desert, Calif. Sponsored by the *Shadow Mountain Gem and Mineral Society* this exhibit will be given in the beautiful art gallery of the *Desert Magazine* Pueblo. California gem and mineral dealers will be housed in our mail room and machinery manufacturers in our garages. Exhibits of the best work of several California societies will be shown and there will be several unique features to be announced in our next issue. Dealers desiring space should contact the Editor as soon as possible as commercial space is very limited.



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in this issue

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◆ News of the Societies



LOS ANGELES LAPIDARY SOCIETY, at its November meeting heard Miss Ruth Simpson, Assistant Curator of the Southwest Museum, in an interesting and educational lecture on "Stones used by the Indians for Ornamental Purposes." A graduate of University of Southern California, where she studied anthropology and geology, she has made a study of Indian jewelry her hobby. The lecture covering the prehistoric and present Indians, was illustrated with a fine display of arrowheads, turquoise jewelry, figurines, fetishes, pipes, charm stones and beads. J. M. Addison, whose cameo work was featured in the first edition of the *Lapidary Journal*, gave a talk on cameo carving at the October meeting.

* * *



CHICAGO LAPIDARY CLUB will hold open house on December 6th, when a special talk will be given by James L. Kraft, one of the world's best known amateur lapidaries. His subject will be "Under Your Feet." The members are planning a lapidary Christmas tree, decorated with colorful cabochon pendants. Go to see this at their December "Open House" meeting at 76th and Ingleside Ave. Ken Russell delivered the second lecture in a lapidary course at the October meeting. It was entitled "Templates and How to Use Them." Florence H. Renaker spoke on "Decorating e Design" in the jewelry course. Lessons number three at the November meeting were in the topics "How to Cut a Cabochon" by George C. Lyon, and "Adaption of the Design" by Florence Renaker.

* * *



SAN DIEGO LAPIDARY SOC. recently heard James Moore speak about the upper Amazon area and its various Indian tribes. Mr. Moore also discussed the North American Indian and his use of rocks and minerals. Gemology classes have been resumed under the instruction of Charles Parsons, Certified Gemologist.

* * *

HOLLYWOOD LAPIDARY SOCIETY'S November speaker was Richard Jahns, Ph.D., Professor of Geology at the California Institute of Technology. Dr. Jahns spoke on "Gem Deposits of Southern California." A special exhibit and colored slides were shown. At a recent meeting, A. G. Ostergard, Past President of the *Mineralogical Society of Southern California*, and a member of the *Glendale Lapidary and Gem Society*, presented an interesting and well illustrated account of a trip to Mexico in search of minerals and gems. The trip, accomplished in a converted jeep, was made in company with George Burnham of *Burminco*.

* * *

GLENDALE LAPIDARY & GEM SOC. (Calif.) will have their 5th Annual Show on May 17th and 18th, 1952, at the Glendale Auditorium. The show next year will be on the upper floor where more room is available.

NEWARK LAPIDARY SOCIETY (N. J.) recently heard Marcus Allen Northrup of the Allied Chemical Co. talk on stone collecting in South America. The Society will host the Eastern Federation convention next summer.

* * *

LAPIDARY CLUB OF WASHINGTON, D. C. heard Frank Holden at its Nov. meeting in a talk on the processing of large specimens.

* * *

MICHIGAN LAPIDARY SOC. (Detroit) recently heard Richard Trowbridge, C.G. in a lecture on colored stones. See item on Charles Worthen and the Society on Page 387.

* * *

GEM CUTTERS GUILD (Cleveland) co-sponsored an eight day gem show in Nov. in cooperation with the City's leading jewelers. The show was held in the Cleveland Museum of Natural History and admission was free. Robert Tesmer, frequent contributor to the *Lapidary Journal* (see his article on Page 368 in this issue), showed his own colored movie on gem cutting and lectured on jade.

* * *

SHADOW MOUNTAIN GEM & MINERAL SOC. (Palm Desert, Calif.), now only four months old, has 167 members, one of the finest bulletins of any society — two classes a week in lapidary procedures—another on silversmithing—its own lapidary shop equipped with a large Highland Park slabbing saw, an M.D.R. trim saw, an M.D.R. faceting outfit complete with all accessories, an Allen Junior outfit, a Frantom cabochon unit complete with trim saw, a home made cabochon outfit, a Felker trim saw, jewelry craft benches, and fitted Poly arbor. Erna Clark addressed the November meeting on "Rare Petrified Woods of the World." At the December meeting on the 14th, members of the *Los Angeles Lapidary Society* will present the program, judge the first work of the new classes (taught by the Editor), camp on the desert behind the society's shop and then go on a two day joint field trip, probably into the Chuckawalla Mountains. On Saturday and Sunday, Feb. 23rd and 24th, 1952, the society will sponsor the first Desert Mid-Winter Rockhound Fair to be held in the art gallery of the *Desert Magazine Pueblo*. Commercial exhibitors will be housed in our large mail room and applications for space should be addressed to the Editor.

* * *



CHICAGO ROCKS & MINERAL SOC. held their annual auction on Nov. 10th. This has become the largest of the club auctions through the years and is always attended by rockhounds of Chicago. Member Mary Brentlinger recently gave a fine talk on "Shells, Stones and Silver."



SAN DIEGO MINERAL & GEM SOC. heard member Charles Parsons at its November meeting in a lecture on "Getting Acquainted with Gemology."

MINNESOTA MINERAL CLUB reports member Mr. Bakey's "discovery of a lifetime" in the finding of a three pound two ounce moss agate, measuring approximately seven inches long, two inches thick and four inches wide. Mr. Bakey believes this stone to be one of the most perfect moss agates ever found in the state of Montana.

COACHELLA VALLEY MINERAL SOC. (Calif.) viewed the famous Dave Harris rock picture slides at their November meeting. This is a fine program for only a \$5.00 rental fee.

THE AUSTIN GEM AND MINERAL SOCIETY (Texas) held its first gem and mineral show in Austin Public Library, November 10th and 11th, 1951. The exhibits were open to the public without charge. According to the President, Emil H. Spillman, the exhibits featured gem stones, both polished and rough, minerals, fluorescent material and fossils. The equipment necessary for gem identification was on display, and demonstrations of faceting techniques were given during the entire show.

TACOMA AGATE CLUB (Wash.) recently enjoyed a demonstration of electroplating in gold and silver, as presented by Mr. A. Kietz of the *Seattle Gem Club*.

SANTA FE GEM & MINERAL CLUB (N. M.) recently heard Oscar Branson of Albuquerque tell of his wide experience in collecting gemstones all over America.

SACRAMENTO MINERAL SOC. (Calif.) held their biggest and most successful show in November with the J. B. Nichols Memorial Trophy for "best in show" going to Past President Elmer Lester. The society allowed dealers for the first time and they are reported very happy over the results.

WISCONSIN GEOLOGICAL SOC. (Milwaukee) reports great success at their "Swap Night" meeting. Recently the members were guests of the *Earth Science Club of Northern Illinois* at the world-famous strip coal mines, centered near Coal City, Ill. The joint caravan included members of the *Chicago Lapidary Club, Marquette Geologists, Chicago Rocks and Minerals Club and Joliet Mineral Club*.

SHASTA GEM & MINERAL SOC. (Paradise, Calif.) has originated a very unique and sensible method of memorializing a departed member. When member Herbert Nowotny was recently killed by a fall from a scaffold, the members donated mineral and gem books to their town library in his name, instead of sending the usual token bouquet.

WHITTIER GEM AND MINERAL SOCIETY (Calif.) held their second annual

show on Oct. 20th and 21st, with a reported attendance of about 1200. A free booklet, giving a history of the club and maps and information of the year's field trips taken, was given to each guest present at the show.

* * *

COMPTON GEM AND MINERAL CLUB (Calif.) cleared \$457 on their recent show. Harry Chaffee showed colored movies of many of the famed rockhound collecting areas at the Nov. meeting.

* * *

GEM & MINERAL SOCIETY OF SAN MATEO COUNTY (Burlingame, Calif.) heard Marcel Vogel at their Oct. meeting in a talk on fluorescence. Of 77 members, half live outside the County and only one of nine board members lives in San Mateo County. Therefore lots of talk about a new name. (and get a shorter one, Ed.)



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Gem Bibliography

Second Installment

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(Continued on page 404)

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(Continued on next page)

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1871, *Gems*, by Augusto Castellani. A Detailed consideration of all the different gems known. Bell & Dalby, London.

1871, *Rambles of an Archaeologist*, by Frank W. Fairholt, (London). Illustrated with 259 wood engravings. Includes a comprehensive section of finger rings and gems, brooches and dress fastenings, both ancient and modern.

1871, *Diamants et Pierres Precieuses*, by Louis Dieulafait. An early French gemological text. 326 pages—well illustrated. Librairie Machette et Cie, Paris.

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1873, *The Tourmaline*, by A. C. Hamlin. A study of this little-known, but fabulously beautiful gem, by an American doctor who was an expert on tourmaline. Four color plates. James R. Osgood & Co., Boston.

1874, *A Manual of Precious Stones and Antique Gems*, by Hodder M. Westropp. A small but highly informative book on precious stones as they are used for glyptic purposes and jewelry. Sampson Law, Marsten Law & Searle, Boston.

1874, *Diamonds and Precious Stones*, by Louis Dieulafait. A popular account of their history, distinctive properties, methods of cutting and engraving, and the artificial production of real and counterfeit gems. Scribner, Armstrong & Co., New York. Blackie & Son, London, Edinburgh & Glasgow.

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1877, *Engraved Gems*, by Maxwell Sommerville. A discussion of the beauties of the glyptic art, followed by a catalog of the famed Sommerville collection. Many illustrations. Porter & Coates, Philadelphia.

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1881, *Die Perle*, by Martin Gerlach. A large volume with 916 illustrations, without text, of fine and valuable old jewelry pieces carrying pearls as well as other gems. Gerlach & Schenk, Wien.

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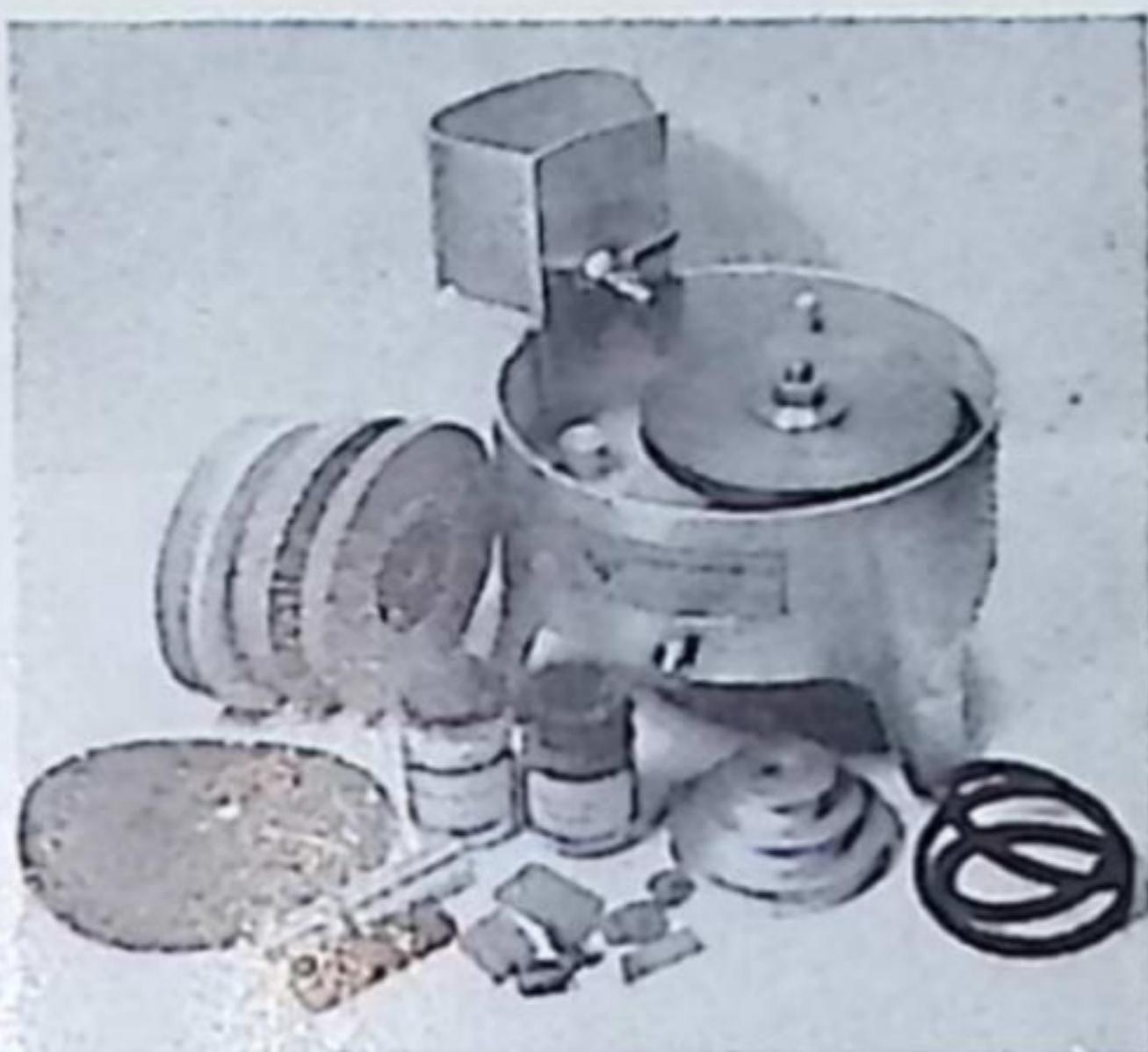
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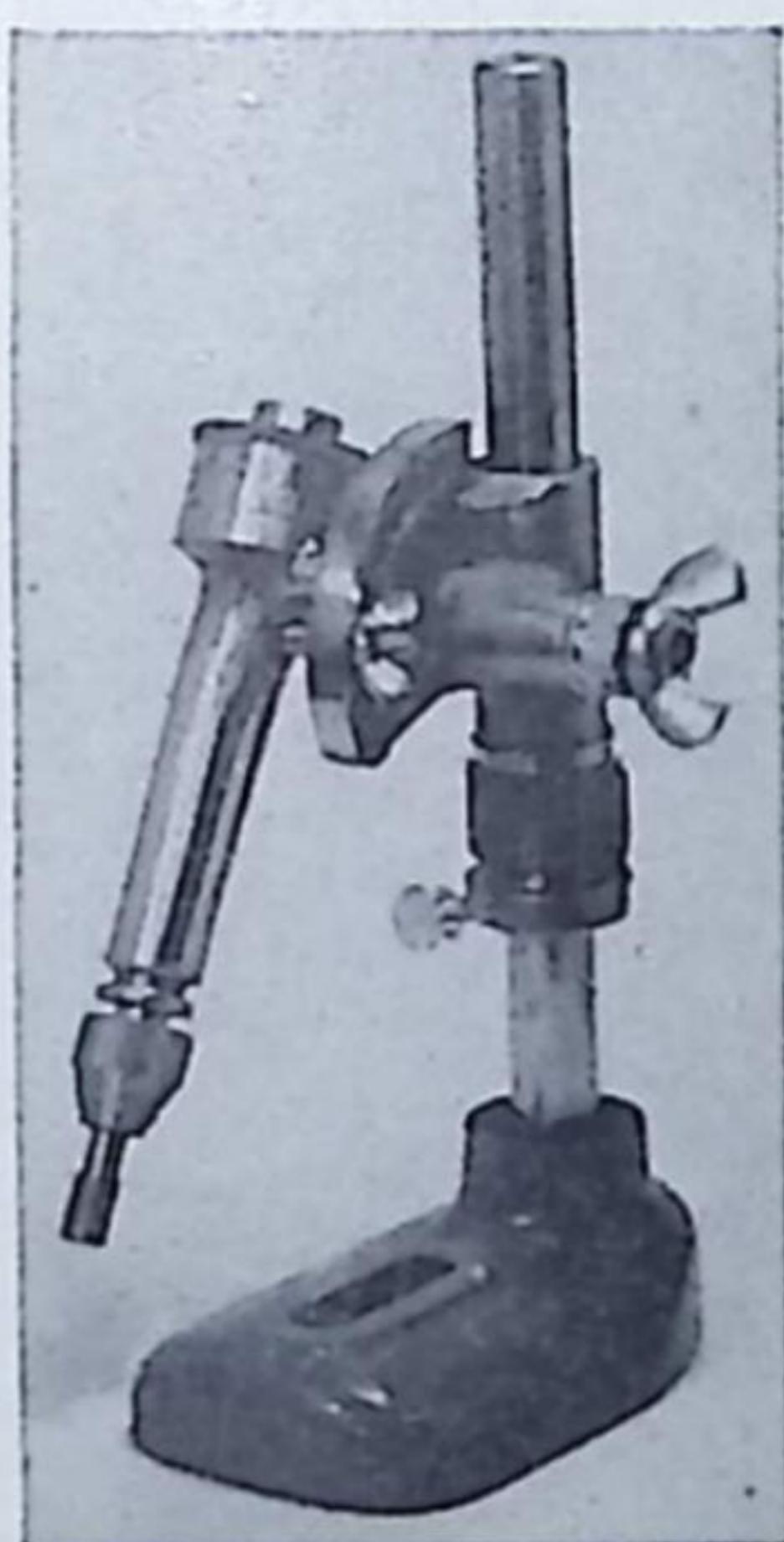
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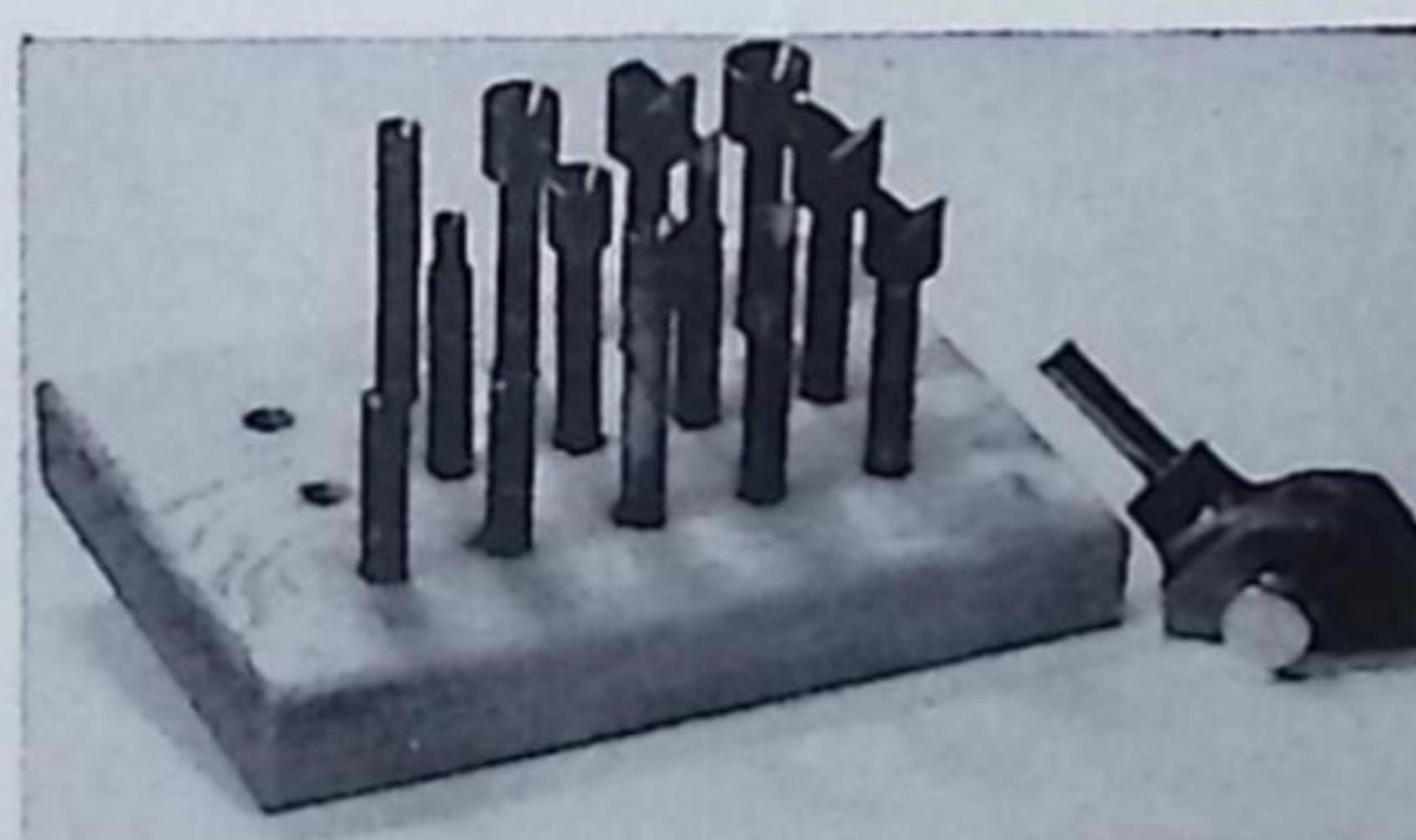
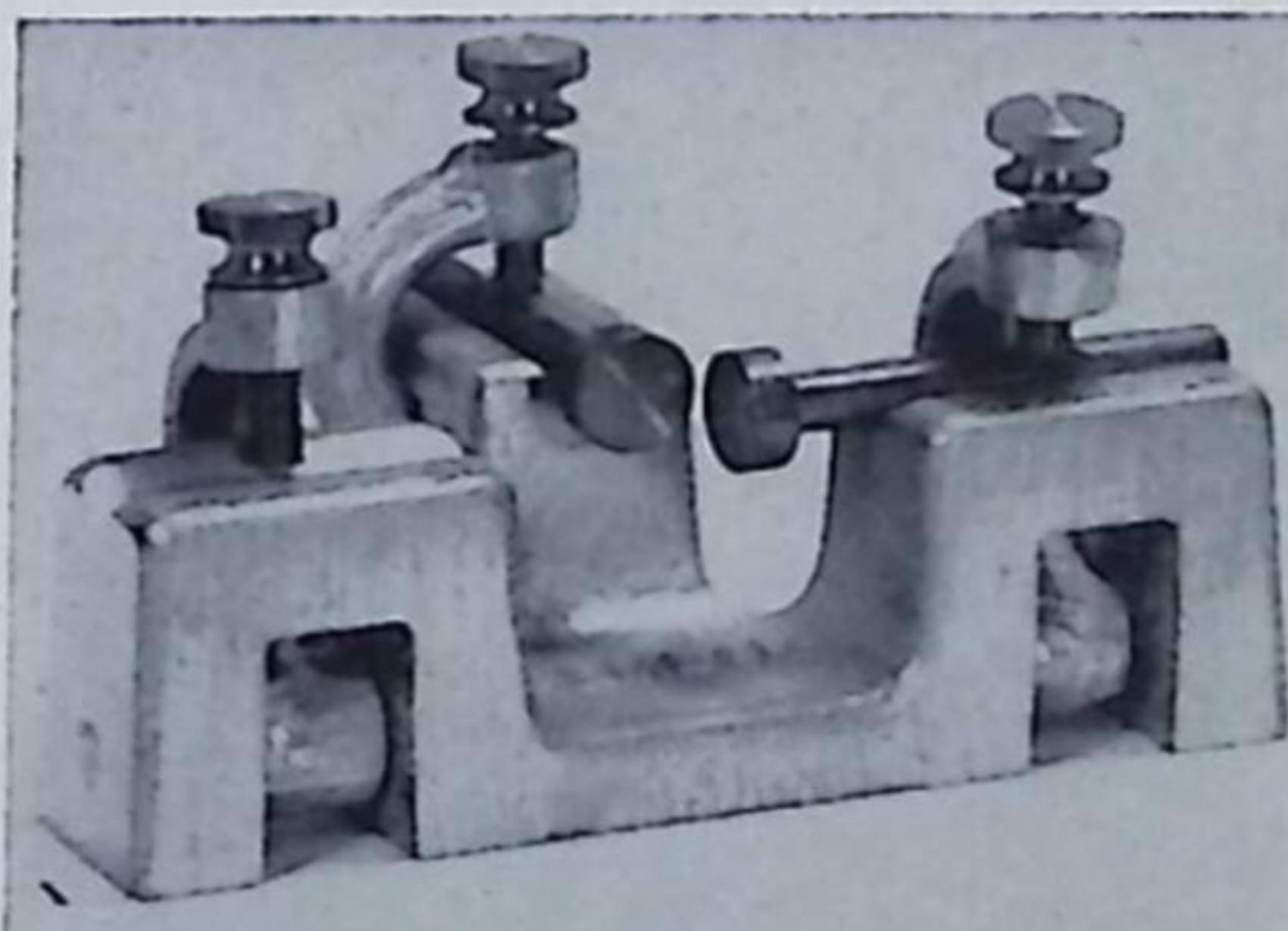


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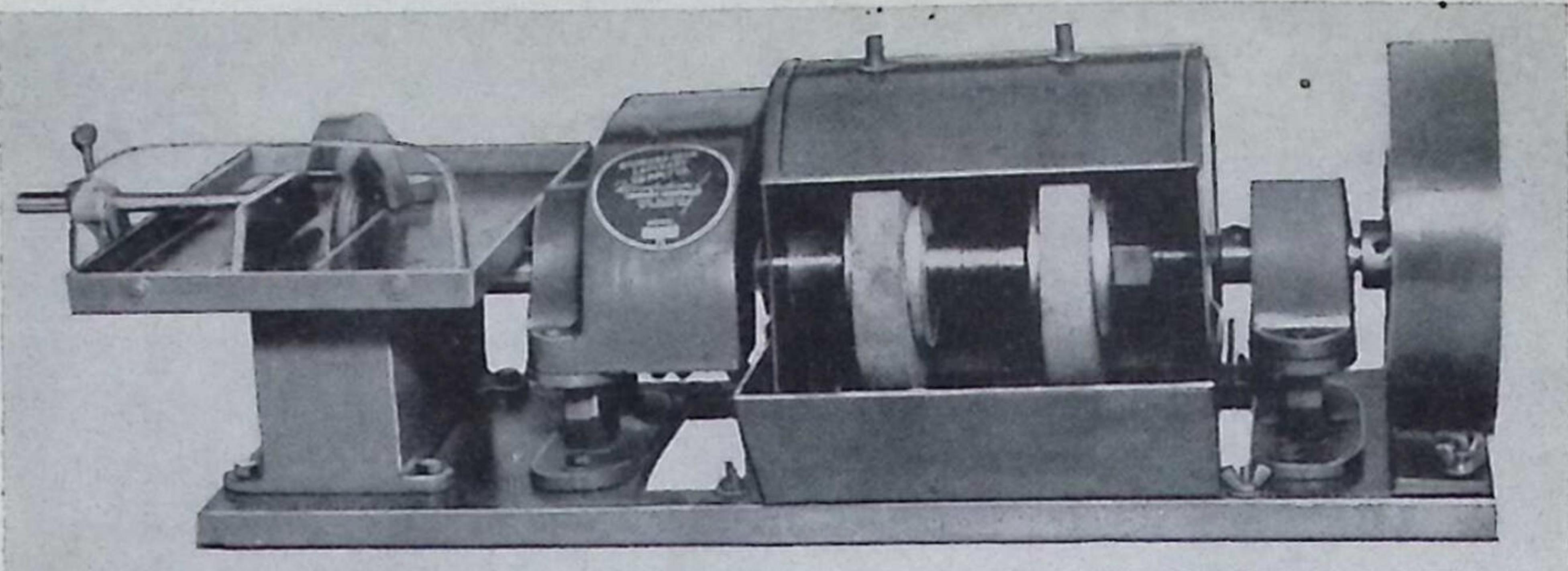
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