MICROMOUNTERS OF NEW ENGLAND NEWSLETTER

November/December 1996 #194

The MMNE was organized on November 8, 1966, for the purpose of promoting the study of minerals that require a microscope.

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Dues are $6.00/year and due on January 1st, payable to the treasurer.

News items for the *Newsletter* are welcome and should be submitted to the Editor.
The *Newsletter* may quoted if credit is given.
The Club address is c/o Editor

Upcoming Meetings

Jan. 12 (Sunday). Boston University. No December meeting

MMNE MEETING ANNOUNCEMENTS

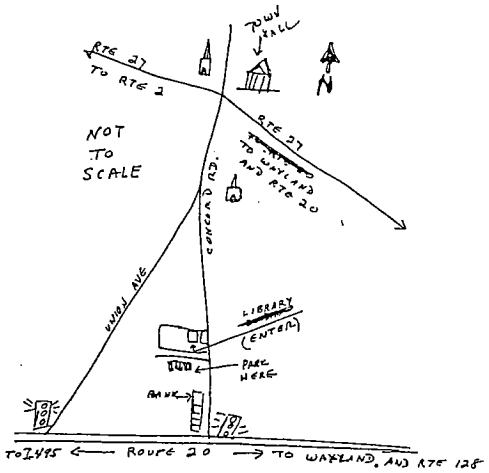
The next meeting will be held on Saturday, Nov. 16, at the Sudbury. MA public library. Doors will open at 9:30 AM. Janet Cares will be giving a slide show.

MEMBERSHIP NEWS

DUES TIME AGAIN: $6.00 payable by January 1, 1997. Send your payment to Janet Cares. Remember that this amount barely covers the cost of publishing the ***Newsletter*** for a year. If your dues are not received by the mailing date for the March, 1997 ***Newsletter***, you will not be listed on the membership roster published with the March issue.

UPCOMING MEETINGS AND SHOWS

North Shore Rock and Mineral Club Micromounters meet the 2nd Wednesday of each month at the home of John and Margaret Stewart, 244 Mill St., Burlington, MA. For more information call John or Margaret at (617) 272-0854.)
November 16 &17. 21st Annual Worcester Mineral Club Show. National Guard Armory, 701 Lincoln St., Worcester. 10AM - 5PM.
MMNE: November 16, 1996 (Saturday), Sudbury, MA public library. Doors open at 9:30 AM.
MMNE: January 12, 1997 (***Sunday***), Boston University. Doors open at 9:00 AM.
MMNE: February 8, 1997 (Saturday), Auburn, MA public library. Doors open at 9:00 AM.
MMNE: March 15, 1997 (Saturday), Burlington, MA public library. Doors open at 10:00 AM.
MMNE: April 12, 1997 (Saturday), Northboro, MA public library. Doors open at 9:30 AM.
MMNE: May 10, 1997 (Saturday), Ashland, MA 4-H Club Center. Doors open at 9:00 AM.



Sudbury is about half way between Rtes I-495 and I-95(128). The library is just north of Rte 20 on the Old Concord Road. Please do not use the library parking lot, but rather the one behind the bank just south of the library. It is just a few steps from there to the rear door of the library where the meeting room is.

SUDBURY, MA
PUBLIC LIBRARY

Micromineralogists of the
National Capital Area

The mineral mite

Volume 29, Number 6 September, 1996

An Inexpensive Micromineral Support For Your Microscope

By Alex Hrabko
Rochester, New York

I was in Australia last year, and was at the home of my new found friends Bernie and Margret Day members of the "Mineralogical Society of Victoria". We were enjoying their fine collection of micro minerals.

Now Bernie, enjoys photography and is very skilled at photographing minerals under the microscope. I began to suggest that he fabricate a universal angle pedestal to place his specimens at that "special angle". I had some experience in manufacturing such a device by obtaining a one inch ball bearing and having a flat surface ground to support a plastic micro box cover. As I began to describe the steps, Bernie smiled and shared his own device. With Bernie's permission I would like to share his device. It's very simple and much easier to obtain and fabricate.

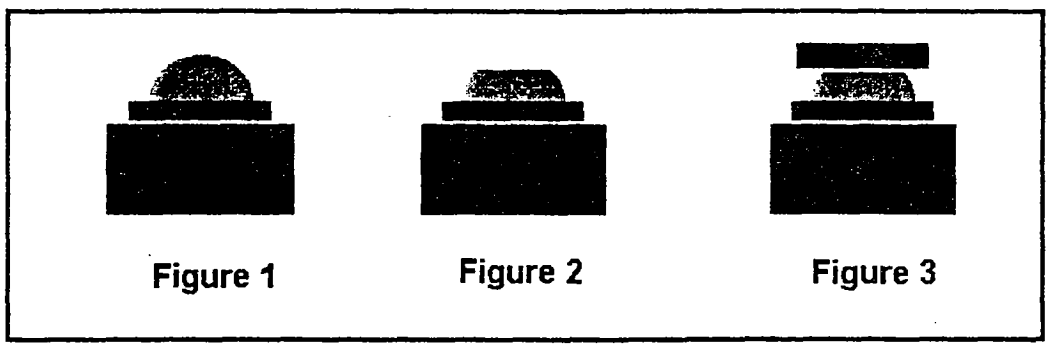


Figure 1 Figure 2 Figure 3

Step 1 - Take that empty plastic roll-on deodorant bottle. Here's the tough part, take a screwdriver or a knife and pry off the section that has the roller ball in it. It has to come off, they fill the little bottle and then press this section on to it. You should end up with something that looks like Figure 1.

Step 2 - Now here's the tough part, opps! I forgot there's two tough parts. Take a file or a sanding block and put a flat spot on the rolling ball. What's the tough part? Holding the ball "steady". When you are successful it should look like Figure 2

Step 3 - That last step, and the easiest! Now, take the top of a plastic micro box, and glue it to the flat surface of the roller ball. The finished project should look like Figure 3

Now, there you have it. Your very own micro specimen "Universal Angle" pedestal. Just place your specimen in the plastic tray and you'll be able to set it at any angle for your examination.

Thank you, Bernie and Margret Day of Melbourne, Australia.

This fine suggestion reprinted from Micronews, September, 1996.

A MICROMINERAL PEDESTAL MOUNTING TECHNIQUE

by

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While trying to find a mounting method I really liked, I have in turn, experimented with corks, dowels, balsa wood, toothpicks, and even porcupine quills. Then, while wandering through a local hob by shop, I chanced across a line of styrene modeling plastic which in my opinion, has great possibilities for micromounting.

The material I am using is manufactured by Evergreen and comes in various thicknesses and shaped, including: tubing, sheets, rods and tiles patterns; the latter can readily be broken into convenient prefab squares. This material can easily be trimmed with a modeling knife, glued, painted, fused with a hot knife or bonded with special styrene solvents. This is how I make use of this product for micromount pedestals:

1. The pedestal bases are made from 1.0mm sheet stock. I scribe the sheet stock into squares that are 0.8 x 0.8" using an X-Acto knife. The scribed sheet can then be broken into squares. In my case, these squares are a perfect fit for an Amac M-511 micromount box.

2. Using an X-Acto razor saw, I cut tubular stock into 0.75" lengths. For most micromounts, I have found that the 0.25" diameter tubular stock works the best. It is handy to produce some with flat ends and some that are cut at an angle on one end.

3. Drill a hole in the center of the 0.8 x 0.8" squares of the appropriate diameter to produce a tight, friction fit for the tubular stock.

   I made a little drilling guide out of a micromount box so that I can drill a big stack of squares at once (see Figure 1).

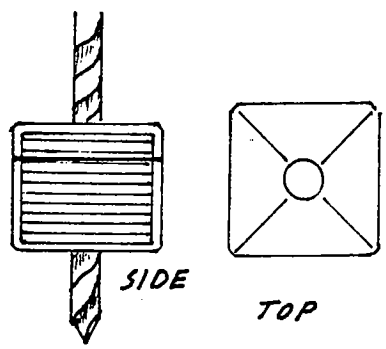

FIGURE 1

4. Insert the tubular stock into the hole in the square, so that one half protrudes from each side. You should end up with something like Figure 2.

5. Next, I spray paint one half of the pedestal assemblies flat black. To hold a group of pedestals while painting, I have a 3-foot length of 2 x 4 with various size holes drilled in it that I stick the lower one half of the pedestals into. For painting I am using Testor's Modelmaster flat black paint and an airbrush, but I imagine a spray can would work just as well.

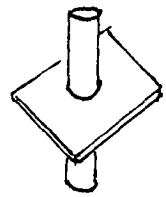

FIGURE 2

6. I take a tiled pattern piece of styrene sheet and break it up into squares; for most micromounts I have found that the 0.25" tiled sheets work best.

7. Using Devcon 5-minute epoxy, I glue one of the small unpainted squares of styrene to the bottom of my micromount specimen. The square should be positioned so that it will not be visible with the specimen positioned at the optimum viewing angle.

8. I trim the end of the painted half of a pedestal as necessary so that once it is attached to the styrene square on the specimen, it will orient the specimen in the most advantageous position.

9. Place a drop of a styrene solvent such as Tenax on the styrene square attached to the specimen. Push the end of the pedestal into the square and hold it for a few seconds while the solvent evaporates; it will fuse into a solid assembly. When this step is completed you should have something similar to Figure 3.

FIGURE 3

10. Grasp the pedestal mounted specimen by the protruding length of unpainted tube. Using an upended micromount box as a guide, twist, push, pull, rotate, etc., the shaft until the specimen is oriented so that the base of the pedestal is flush with the top of the box and the specimen is in the best viewing orientation (see Figure 4).

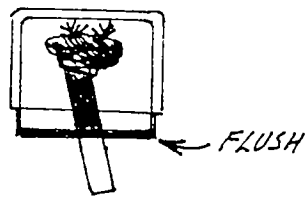

FIGURE 4

11. Heat an X-Acto knife blade in a flame for a few seconds. Use the heated blade to slice the excess styrene tubing off flush with the base. This procedure also has the effect of fusing the tube holding the specimen to the base of the pedestal.

12. The pedestal mounted specimen is now ready for mounting in the micromount box. I perform this step using Devcon 5-minute epoxy. I use the epoxy sparingly so that it does not bleed through my labels which are mounted on the inside of the micromount box.

January 26, 1996

This article came from the International Micromounters Journal, V. 5 #2, 3/96. The mounting method decribed is obviously a very time consuming method designed for long term protection as well as special presentation such as competition, but it might well be appropriate for the very best specimens in a collection. It does compromise the ability of the micromounter to adjust the specimen for photographic purposes. Next issue I will print a complimentary article by the same micromounter describing a specialized technique for making and applying labels for competition quality specimens.

An airbrush can be tricky to use and a mess to clean up. I have found that exterior grade acrylic flat black house paint applied with a 1/4" flat, square-end brush is a very effective way to blacken the interior of boxes. It is easy to apply, and it cleans up with water. For the best coverage two coats are necessary for a perfectly flat surface, but they can be applied within a half hour of each other so you do not need two separate sitting for the process. Only the sides of the box are painted. The bottom is covered with a pre-cut square of flat black construction paper secured with a cement which tends to dissolve the plastic such as Duco® Cement. The attachment between the construction paper and the mount then has a little flexibility which tends to reduce the chance of separation if the box is dropped.

I also have been using "Mineral Tack" for securing larger specimens. This material has significant flexibility which allows adjustment of the specimen for photography, and also cushions the specimen if the box gets dropped. if any of the tack is visible, it can be blackened with a magic marker to the point where it disappears into the flat black interior of the box.