AN IMPROVED SCRIBE FOR DENDROCHRONOLOGICAL ANNOTATIONS

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Annotation of the calendar years of specific annual rings on samples of wood or X-ray images of wood is an important procedure in dendrochronological technique. The accepted method is to scribe dots on the wood or film with a dissecting needle. In the case of extremely narrow annual rings, the diameter of the needle mark can exceed the width of a ring. To make the needle mark more discrete requires a much smaller gauge needle. Minuten pins, manufactured for insect mounting, proved to have both the small diameter (0.2 mm) and rigidity required. A holder for these small pins was devised to fit over the blunt end of a ballpoint pen.

A minuten pin is inserted into the base of a hemi-hyperboloid BEEM capsule (used in virology), size 00, leaving the pointed end of the needle protruding about 3 mm. The pin is then secured by partially filling the capsule with epoxy resin. After the resin has hardened, the plastic of the capsule is trimmed around the needle to minimize obscuring of a sample with the tool (Figure 1). The inside diameter of the capsule is compatible with the outside diameter of many ballpoint pens. Thus, placing the "pin capsule" over the end of a pen produces a versatile device that is useful, not only for marking annual rings on wood or X-ray film, but also for making notes of observations.

An enlarged view of a minuten pin point compared to a disecting needle point on an X-ray of a wood sample, with narrow annual rings, demonstrates the advantage of the pin (Figure 2).

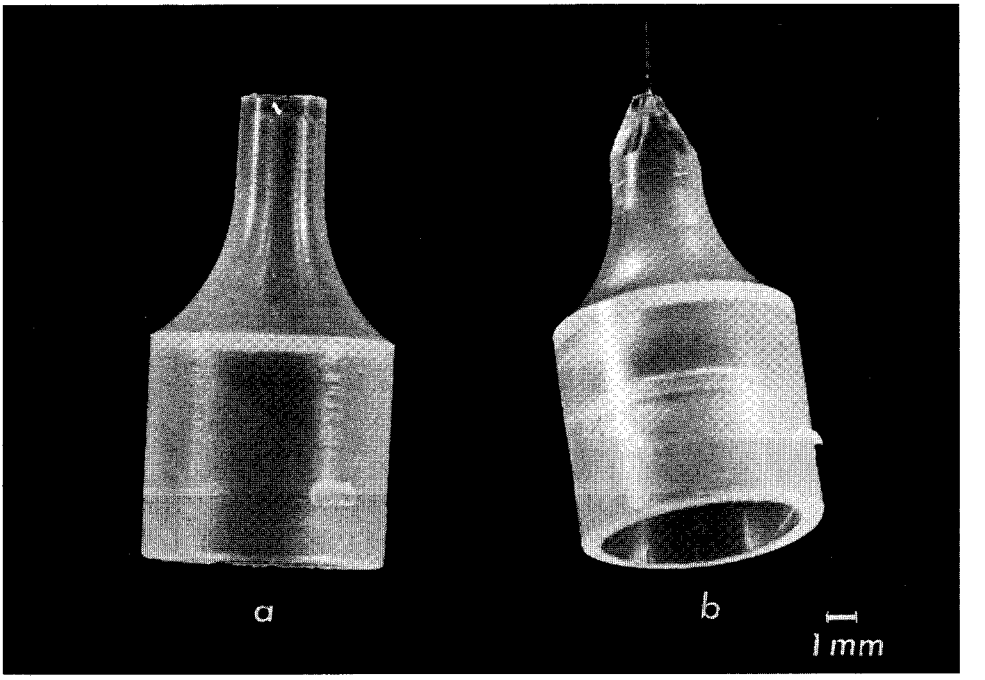

Figure 1. Photoenlargement (4X) of *a*,BEEM capsule; *b*, BEEM capsule with pin and epoxy filling, tip of capsule trimmed.

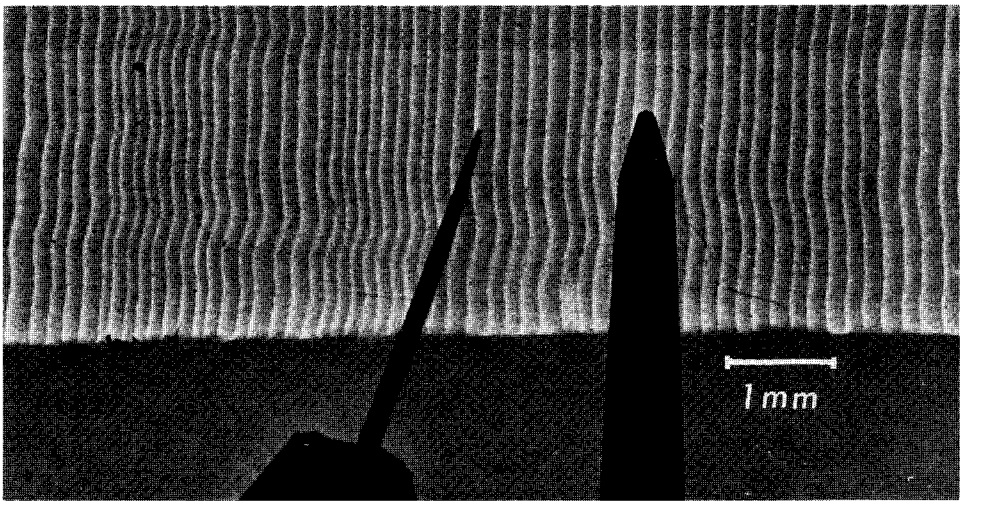

Figure 2. Photoenlargement (16X) of minuten pin in BEEM capsule (left) beside dissecting needle on x-ray image of wood sample.