

A "New" Filter Crucible Holder

Joe B. Davis

Department of Chemistry and Physics
Winthrop College
Rock Hill, SC 29733

During a quantitative analysis experiment involving suction filtration, a student used a polyethylene thistle top instead of the prescribed Walter filter crucible holder. She called my attention to some air leakage. After a moment of twisting and turning the thistle top, it worked beautifully. In fact, standard filter crucible holders (Walter and others) have been replaced in my laboratory by thistle tops (variously called thistle tubes, funnel tubes, and thistle tubes without stems). The common size thistle tops (Nalgene 6210 (listed only as a complete unit in 1983-84 Nalge catalog), Mallinckrodt P 430-0000) mate nicely with 250- or 500-mL filter flasks and 20- or 30-mL porcelain crucibles. Inside top diameter is the same as the Walter filter crucible holder. Leakage problems have been minimized by selecting flasks with more uniformly round necks. Thistle tops are lower in cost than other filter crucible holders, are not subject to deterioration and contamination of crucibles with rubber particles, are unbreakable in normal use, and are likely to be in normal laboratory inventory.

Vibration Damper for Balances, Etc.

Joe B. Davis

Department of Chemistry and Physics
Winthrop College
Rock Hill, SC 29733

All too often, balances and other sensitive equipment must be mounted on unsuitable supports. Vibration from both near and distant sources can render such equipment unusable. We experienced such a problem with a single-pan analytical balance mounted on the same bench with several others which were operating satisfactorily. An almost imperceptible vibration caused the beam to move, throwing the optical image out of focus. Standard vibration dampers did not obviate the problem. Placement of a stack of a dozen bricks on each side of the balance (about 12-15 cm away) solved the problem without interfering with use of the balance. Use of a damping mass in this manner is quick and inexpensive enough to be worth trying.

Cookie Jar Desiccator

B. Das Sarma

West Virginia State College
Institute, WV 25112

We have used a cookie jar to devise a novel desiccator for the freshman laboratory. The system costs little to the chemistry department beyond the initial modest investment in dessicant and aluminum support platform. Instead of sharing a larger desiccator purchased and maintained at a much higher cost, students can lock this individual cookie jar in their student's laboratory drawers. The cookie jars being placed in individual drawers avoided the problem of cross contamination between different crucibles and eliminated both the danger of frozen desiccator lids and the student al-

legation of "someone else" misplacing or stealing his/her gooch, especially when a clean crucible is being dried to a constant weight. The unit is ideal for sample runs in triplicate. The system can be assembled easily as outlined below.

Cookie jars employed were 115-mm square, 130-mm high, 92-mm (ID) round-mouthed, fitted with an airtight plastic-lined lid (Fig. 1). Jars used in our laboratory are manufactured by Anchor Hocking Corporation, Lancaster, OH 43130 and are available in local discount stores for less than \$2.00 each.



Figure 1. Anchor Hocking® cookie jar—115-mm square, 130-mm high, 92-mm (ID) round-mouthed, fitted with an airtight plastic-lined lid.

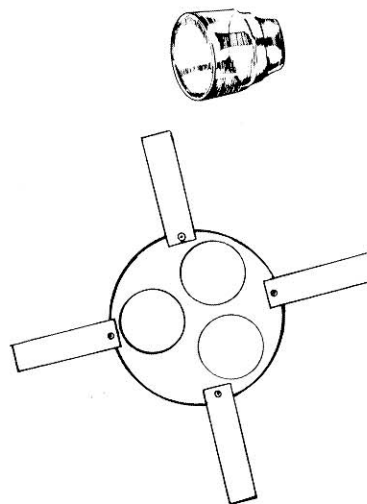


Figure 2. Aluminum desiccator stand made from ≈ 1.2 -mm thick aluminum sheets. A circular platform (diameter 90 mm) with three 35-mm diameter holes to hold sintered glass or porcelain crucibles was fitted with four aluminum legs (14 mm \times 65 mm) rivetted to the circular platform.

This column represents a consolidation of the Apparatus Review and Inflation Fighters features under a single editorship. Readers will continue to find useful aspects of both, including methods and details of how to save money by building their own equipment, and information on and evaluations of currently available equipment, apparatus, and supplies. Novel time-saving or cost-saving techniques will also be shared via this feature. Readers interested in contributing to this feature should contact the feature editor.