

# CHAPTER ELEVEN

## Special Aspects of Faceting

As wide ranging as the faceting challenge can be, you'll probably find that over a period of time your efforts will be responsible for more round brilliants — or variations of a round brilliant — than almost any other cut.

The reasons aren't difficult to flush out. This rigidly disciplined and symmetrically pleasing design is capable of producing majestically beautiful gemstones. And it represents quick, easily executed, and straight forward cutting. Furthermore, you seldom if ever have trouble finding a suitable mounting.

But there's more to faceting than merely executing round brilliants and skillful polishing. You need a full range of related supportive skills to extract the greatest pleasure and beauty from faceting. Take emeralds as an example. The finest cutting and polishing techniques — round brilliant cut or not — often fail to bring out the mineral's lush green aesthetic potential. The reason? The naturally imperfect personality of emerald can keep it from displaying maximum beauty — in the absence of some helpful "treatment" i.e., the emeralds need oiling. A knowledge of oiling techniques can be most helpful for enhancing the natural beauty of emeralds — as well as other included gem types that will appear far more beautiful if the beholder's eye can be averted from unsightly imperfections.

Likewise, an ability to modify cuts, to create your own designs, to facet the difficult soft and sensitive gems, to possess the conceptual skill to alter published angles of different gems in pursuit of your own optical ambitions. . . these additional, supplementary capabilities are vital to the development of a full repertoire of faceting skills. Also, although faceting essentially remains an art form for one's own pleasure there are still the profitable aspects of marketing your skills and services to consider. Most faceters at one time or another nod a slight approval to the lucrative nature of their newfound talents.

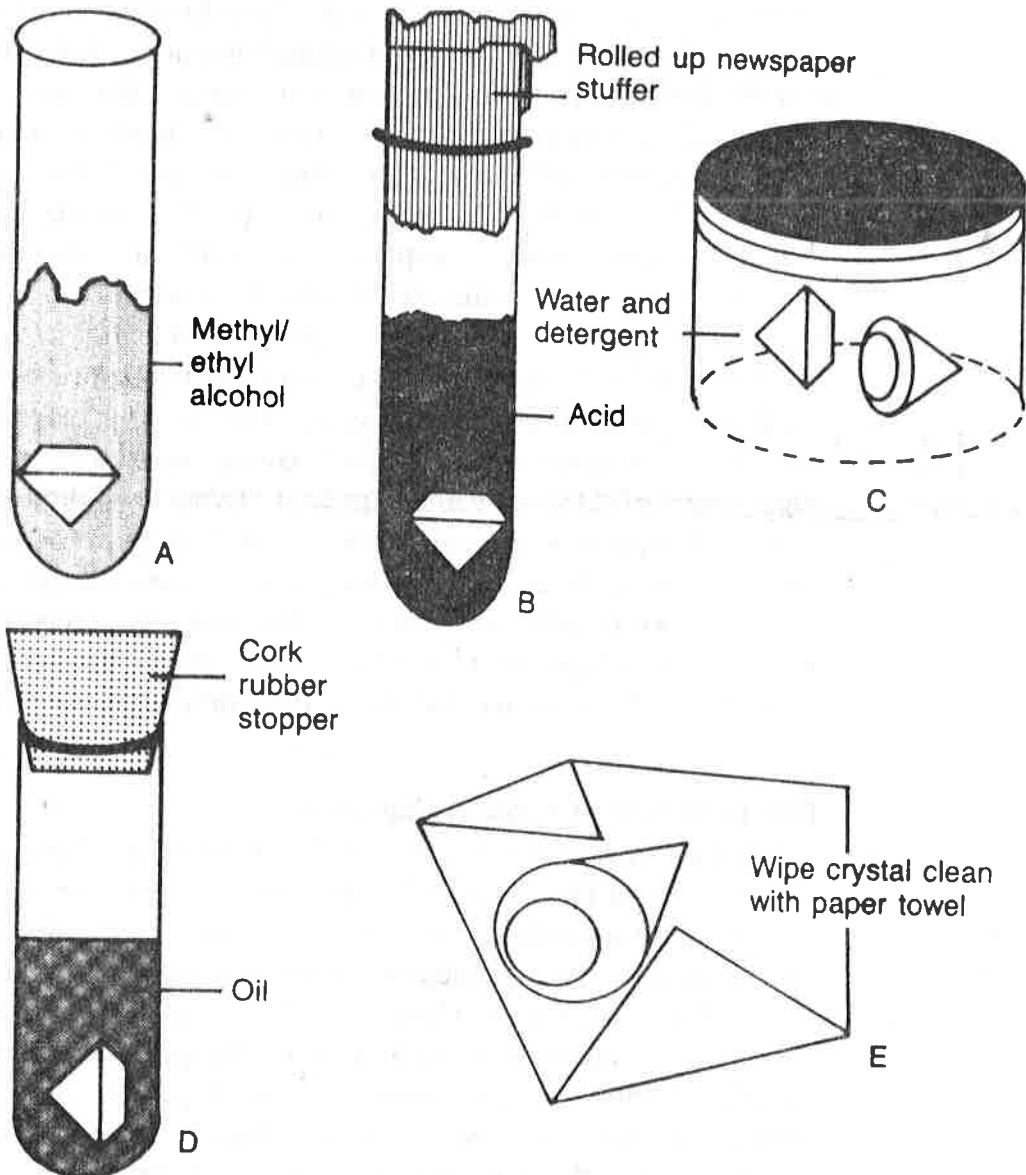
### **The Technique of Oiling Gemstones. . .**

Through the ancient and honored technique of oiling, a flawed gemstone's appearance can be appreciably improved. What makes any flaw stand out — as we know from earlier chapters — is the interference with light waves through the crystal itself. An air-filled cavity is highly prominent. Yet if these air cavities are filled with a clear oil, close to the Refractive Index of the crystal itself, the flaws are dramatically reduced in noticeability. By reducing light interference, the oiling improves the intensification of the gem's color. The process has not been well understood despite the fact that oiling has been traced back to Grecian times. You don't need to send your gemstones away to be oiled. By exercising a reasonable amount of caution and common sense, you can perform the procedure yourself with surprisingly good results.

The oiling of gemstones — most effective when done *after* the faceting — consists of a five-part technique. The five steps are: 1) cleaning the stone thoroughly; 2) acid treatment to clean out the cavities and/or fractures; 3) acid removal; 4) oiling to fill in the imperfections; and 5) final cleaning.

After the cutting and polishing process, an emerald retains particles of dirt, polish, perhaps oil. To remove this residue — especially any oil that was used in the faceting or as “treatment” by the rough dealer to make the rough crystals look better — place the cut stones in a test tube and cover them with methyl alcohol or ethyl alcohol. Slowly, bring the alcohol to a boil and then let cool, repeating the process until the stones are visibly clean.

If the stones are free of polish or oil, the cleaning step can be eliminated, or the cleaning can be done by rinsing well in alcohol (not denatured alcohol because it contains shellac) and wiping dry. Before you dispense with the first step, though, be positive that no oil is present: it will react with the acid, causing brown stains that can't be removed.



*In a 5-step procedure for oiling gemstones, first (a) clean by immersing crystal in alcohol and bringing to a boil. Allow alcohol to cool, then soak crystal in diluted acid (b) overnight (or at least until bubbles cease). Rid crystal (c) of acid by slow boiling in water/detergent, then rinse and dry. Immerse crystal in oil in stoppered test tube (d) and bring slowly to a boil. Keep up temperature for several hours to allow oil to penetrate all crevices, etc., then simply (e) remove crystal and wipe clean with a paper towel.*