about the last turn-and-a-half, wetting the remaining length with a wet sponge or cloth, and re-rolling it tightly, again keeping the ends even. Making up a number of such cases is good practice, and when they are dry, they are ready for loading. It is well to rub the former with paraffin occasionally to prevent sticking, and sometimes a slight backward twist must be given it to remove it from the rolled casing.

Loading and ramming proceeds exactly as previously described for one-pound rockets, except that only the starting and finishing drifts are used. If it is desired to add a garniture of stars, a piercing drift may be used in ramming the top clay plug, with a sharpened length of 1/8" nail in the bottom, or the hole may be drilled afterward. In either case, be sure the hole extends just into the powder, or it may come too close to the central cavity and blow through prematurely. In place of a nose-cone, which is impractical in this small a rocket, another short length of gummed tape may be glued around the case with about half its width extending beyond the case. After the "pot" is placed in the tube thus formed, the upper end is glued or taped shut.

Small experimental rockets like the "sub-ouncer" are excellent for learning the rocket principle and are adaptable to other uses such as making "line rockets", which run along a stretched wire, or for attaching to revolving wheels as turning cases, or even as small fountains or "gerbes". In the latter two instances, however, it may be well to sacrifice some of the thrust produced by the hollow core in favor of longer burning-time. This is done by shortening the spindle to half its length, or even less and ramming the space above it solid. Once the technique of making these small rockets is mastered, all sorts of modifications will suggest themselves. As with all skyrockets, "the sky is the limit!"

In conclusion, and to forestall possible questions, there are two techniques in rocket construction which have not been mentioned here. One is that of ramming the case solid, afterward boring out the central core, and the other is formation of the choke by twisting a cord around the case to make a restriction or "waist" while it is still damp (a clay choke may may also be formed inside it in larger rockets). Neither technique is used much anymore in this country (but see page 9, July 1969 issue). It should also be mentioned that our British confreres employ the term "choke" to mean such a waist formed in the case itself, while in this article we have used it to mean any restriction in tne open end, clay or otherwise.

(While much of the information in this rather lengthy article may seem rudimentary to the more experienced and advanced pyrotechnists among our readers, the author asks them to remember that all are not in the same class, and that they themselves probably asked many of the questions answered here — we certainly did! And then, we are often surprised to receive a letter saying, "Even as a fireworks man myself, I have learned things from your publication that I never knew before!", or words to that effect. So, in view of the inquiries we have gotten on the "rudiments" of fireworks manufacture, we don't feel that we have wasted space by trying to answer most of them in this issue, at least on the subject of skyrockets. In fact, the writing of it and the number of times we had to refer to texts made us realize how many of the "rudiments" we had forgotten, so if it was a good "refresher course" for this writer, we hope it may serve the same purpose in other quarters!)