on electron microscopy quote or paraphrase the injunction by Pease (24) that only freshly made solutions of Formvar be used to make support films as the plastic solutions deteriorate on standing. Contrarily, we suggest that freshly made solutions should never be used without prolonged stirring (preferably overnight), and that a thorough restirring is usually all that is needed to regenerate a previously useful solution.

2. Cleaning the Grids. The grids should be clean and free of oxides so that the supporting film will adhere to them. Wash them briefly in glacial acetic acid, rinse with distilled or deionized water, two rinses in absolute ethanol, and finally dry them on filter paper. The acetic acid wash should be brief, as the metals may be attacked if exposure time is too long. This is especially true of rhodium-plated grids.

3. Preparing the Formvar Film (See Figure 6, Steps *a–d*). A suitable microscope slide is carefully polished for ⅔ of its length with a clean, lint-free wiper (the remainder of its length is reserved for handling). (Note: although a film will be formed on both sides of the slide, it is best to expect the production of only one film per slide. Thus, attention can be concentrated on one side of the slide, designated the "film" side.) Place the slide, film side up, in a preheated oven set at 55°C. Prepare several slides in this manner and prewarm them so they will be available as needed. A suitable glass container is filled to a height not to exceed the length of the cleaned part of the microscope slides. There are various slide-staining jars that are acceptable for this purpose, but we have found that a 30-ml tall form Griffin beaker will do as well. Keep the container tightly covered (with aluminum foil if no regular cover is provided) to prevent solvent evaporation, when it is not in use.

Remove a slide from the oven, and immediately immerse the polished end in the Formvar solution. Count slowly to 5 (to approximate 5 seconds) and then, without hesitation, yet without jerking, remove the slide from the solution and drain it vertically on filter paper. When it has dried, the plastic film is cut free by stroking the slide edges with a bamboo splint. Start the stroke above the film meniscus and carry it to the corner, and then along the bottom in both directions to the corners. Work the corners with care, as these are the places most likely to pose problems when trying to float the film free of the slide. There is no need to cut along the top edge of the film (meniscus); it will usually release there with no difficulty. As this stroking proceeds, advance the splint in minute increments. This will minimize the splinters and dust that might attach to the film. After the good areas of the splint are worked over, discard it for a new one.

4. Floating the Film (See Figure 6, Steps *e* and *f*). A Stender