solution (either it was not hot enough to begin or it remained too long in the Formvar solution), or it was jerked from the solution too rapidly.

Dome-like interference bands, smooth and less than full slide width. Caused by an impurity on the slide surface or a flaw in the glass.

Often, imperfect films will have areas that may be used. Simply avoid the bad spots when placing the grids on the film.

Swathes of interference colors. The plastic solution has remained standing too long without stirring, or was insufficiently stirred initially.

Film shows interference colors other than gray or silver. If these colors are confined to the edges of the film, they can be avoided when placing the grids on the film. However, if they cover large areas of the film, the Formvar solution is too concentrated and should be diluted with ethylene dichloride. The best films are of such a light gray that they are nearly invisible. These have barely enough mechanical strength to span the grid openings, but when coated with carbon, they will provide a very stable support for electron microscopy.

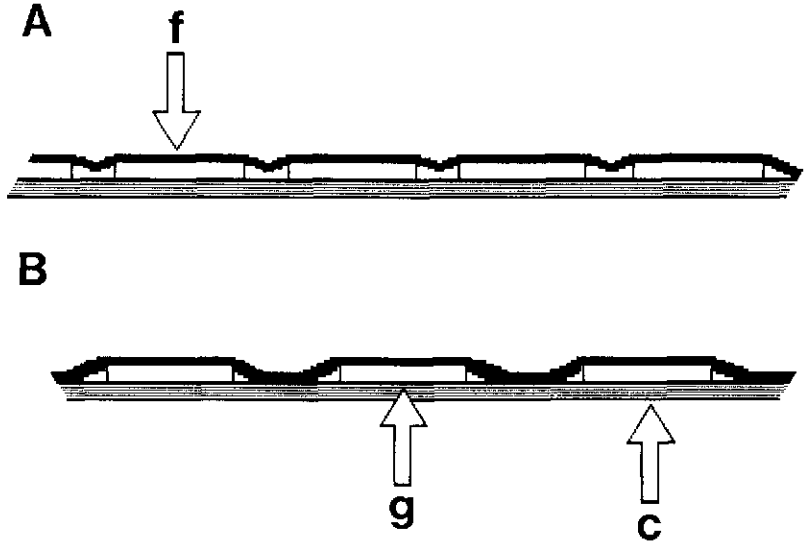

Figure 7. Proper spacing for electron microscope specimen grids (*g*) in relation to the plastic supporting film (*f*). *A*: grids are spaced too closely. The plastic support film spans the gaps between the grids, and when the individual grids are lifted from the index card base (*c*) for use they will disturb and probably damage the film on the surrounding grids. *B*: grids are spaced far enough apart to allow the plastic substrate to be anchored between them. Grids may be lifted individually without disturbing those nearby.