"In using conductive mandrels, the surface should be passivated and protected from corrosion."

loys called "Cerrotru"® and "Cerrobend,"® steel, aluminum, rubber, wax and plaster for matrices.

Application of Conductive Film

Any non-conductive matrix must be made conductive prior to electrodeposition of metal. Three ways to do this are electroless plating; chemical reduction of silver; and application of conductive paint.

Convair-Ft. Worth uses DuPont No. 4922 silver paint to apply a conductive film. Ten Troy ounces of this material are mixed in one gallon of solvent. We spray a film approximately 1/3 mil thick on the surface of the matrix and dry it for 30 to 40 minutes at 120-140 deg. F. or for three to four hours at room temperature.

In using *conductive* mandrels, the surface should be passivated and protected from corrosion. It must be treated to prevent formation of an alloy at the interface of the mandrel and the electroform—especially when using Cerrobase® alloys.

Electroforming

In electrodepositing metal over the matrix, keep current density low at first, then increase after a

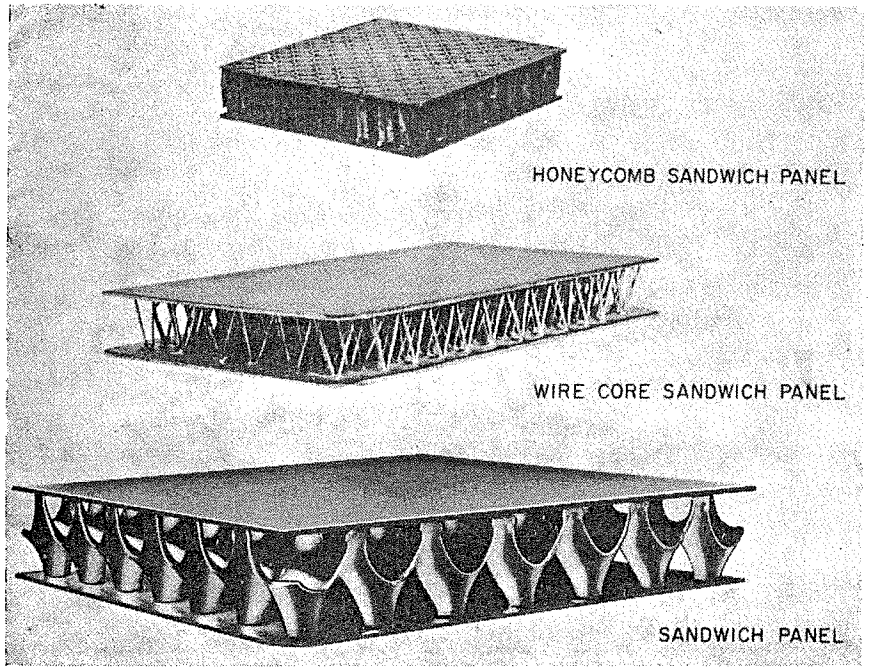

Fig. 2—Electroformed sandwich panels for future aerospace vehicles. (Photos: Convair-Ft. Worth)