<u>Manufacturing Information</u> FSEC/High Back Reflector Solar Cooker Prototype

1. Unit is to be foldable (into itself) for portability and shipping purposes. Should be foldable into the smallest possible size. (Suggest size of back panel. Section A. See attached drawing with dimension.) See photos below of a corrugated plastic artist's portfolio that closes and opens. It would be convenient to have a method to attach a small handle for carrying the closed unit.



2. Some type of attachment method should be incorporated to securely attach the 2 side panels (See D and E on attached drawing) to the bottom (See B on attached drawing). (See photo below of method used in the artist's portfolio.)



3. "Inclined back reflector section (G)." (See below and attached Drawing B.) This section will have a ±60 ⁰ tilt angle. This section is to be adhered to the back panel via two tabs entered into two slots (located 7" up from the bottom of panel A) and then the tabs folded upward and affixed with some type of permanent bonding material to the back of panel A. The bottom of the "inclined back reflector section (G)" will be loose, i.e., – not adhered to the bottom panel (B). The reflector section (G) will be folded down onto the base of the bottom panel from the tabs when in use. The bottom of the inclined reflector section should be approximately 4" out from the back of section B.



Note that the "inclined back section" will be folded against the back panel when the unit is closed for storage and transport.



4. "Front reflective panel." This reflector will be adhered (or part of) the bottom base (See B on attached drawing) of the panel. This "front reflector" will be angled-up at a user determined angle. User will use a readily available object to hold the "front reflector up at the desired angle." The "front reflector" will be folded into and onto the solar cooker base (See B in attached drawing) when unit is closed for storage and transport.



5. FSEC will do the following. The following information is provided for overview only. Small ¹/₄" diameter round holes will be punched at the top location of the indicated side panel (D and E) to allow for the insertion of the expansion bar. (The expansion bar will be used to adjust the back panel of the cooker. The back is adjusted with sun altitudes.) The center of hole should be ¹/₂" from top of exterior side panel and ¹/₂" from the adjoining crease. The crease between the two side panels. (Once again, FSEC will make the holes once the prototype is received.)



6. Photos of the solar cooker.



