

# BUILD YOURSELF DRAWINGS

## SOLAR

## SMELTERS

## INTERNATIONAL

### LEGEND:

1. Parabolic Half Shell.  $X \times X = 4 + P \times Y$ . Must be precise. Can be molded via fiberglass, composites, aluminum, or other materials. The interior is highly reflective, and redirects sunlight to the focus.
2. Planar Reflector. This is tiltable and controlled via a pulley and cable, or actuator. Is highly reflective. Recommend electroplated Aluminum Oxide, but Silver Mylar is OK, so is Aluminum Mylar (Potato Chip Bags). Chrome or Aluminum Foil is NOT recommended. This tiltable reflector can be longer so as to put more sunlight into the interior Parabolic Half Shell.
3. The Sun.
4. Bicycle Wheels for Tracking and Moving Around. There are three of them.
5. Cable. Used for adjusting the height of the tiltable Planar Reflector. Can be manual, or an actuator. Recommend Safety Latches.

Members of Solar Smelters International may build for personal self-use and distribution within local village. For mass production license rights contact Solar Smelters International.

Additional information can be accessed via [www.solarsmeltersinternational.org](http://www.solarsmeltersinternational.org)

**DISCLAIMER: WARNING. THIS IS NOT A TOY.**  
This invention creates temperatures in excess of 5000 degrees F, close to the surface of the sun. Experimental. Use at your own risk. Training is Required. Use Extreme Caution. Use of Personal Protection Equipment Highly Recommended. This device can cause injury and can kill you. Keep children and small animals away. The inventor, Solar Smelters International, Sumbustion will NOT be held liable for personal injury or death.

6. Crank. Used to adjust tilt of the Planar Reflector. Other ideas exist.
7. Counter Weight. To keep from blowing close. Can also substitute actuators.
8. Rear Bicycle Wheel. The entire invention is built like a bicycle using a bicycle frame type of construction. The Parabolic Half Shell hangs on an exterior frame, with the base of the Half Shell also on a curved bicycle frame. Reinforcing members can be added for structural stability.

9. Hinge. For tilting the Planar Reflector. Also mounts the hub for the bicycle wheel. A frame goes along the outside of the Parabolic Half Shell giving it structural stability.
  10. Triangular Door. For Safety, the only way to access the crucible is via this door. In order to access, must close Planar Reflector, turning the crucible off. Safety Feature.
  11. Crucible. The low elevation is safer than having the focus high in the air. Avoids spilling on people.
  12. Pedestal. Elevates the focus, so as to keep it above snow, or water. Can be a concrete block. Safety feature.
- Recommended Width. 8 Feet. But can be almost any size.

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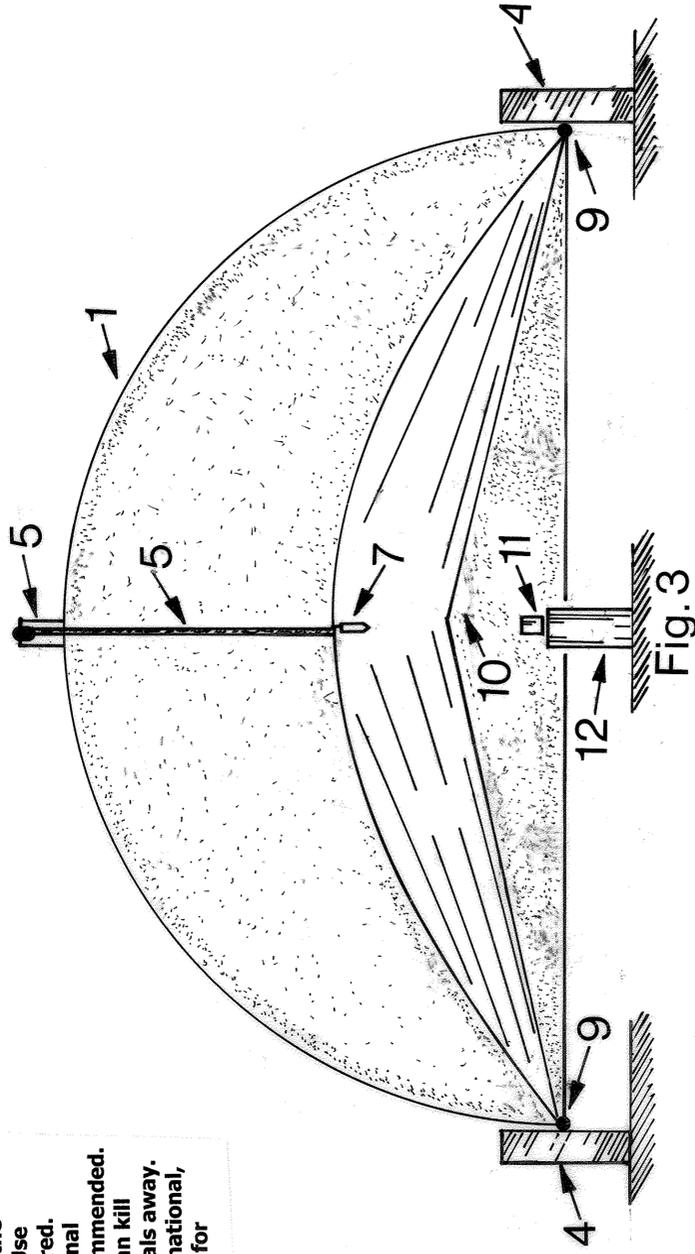


Fig. 3

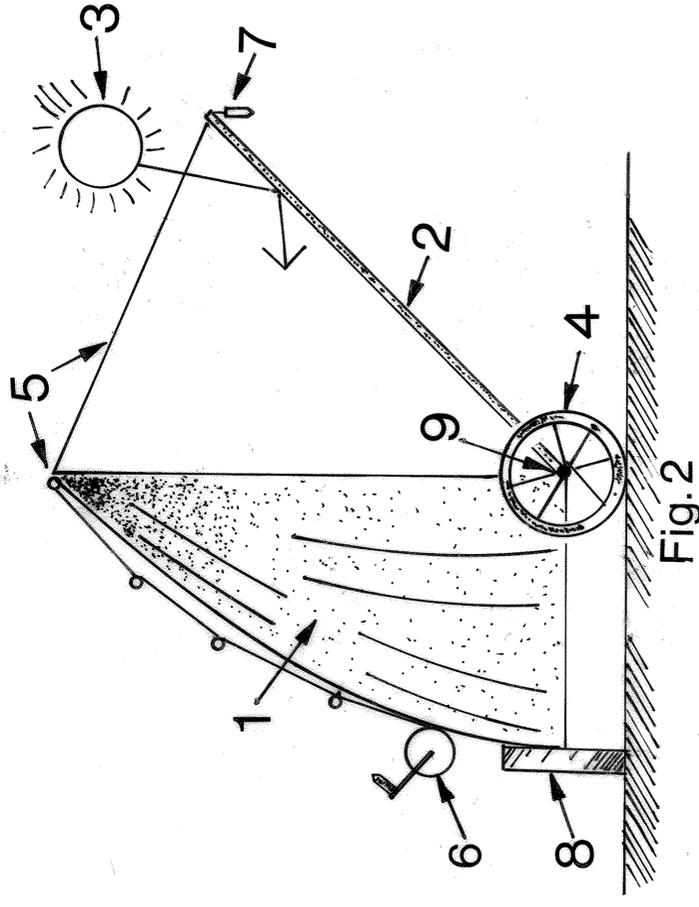


Fig. 2

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