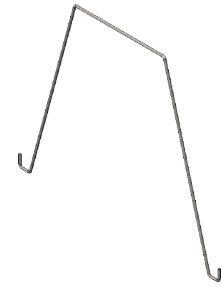




Airplane Wheel Wire



A. Sketch Sweep Path.

Step 1. Click File Menu > New, click **Part** and OK.

Step 2. Click **Front Plane**  in the Feature Manager and click **Sketch**  on the context toolbar, **Fig. 1**.

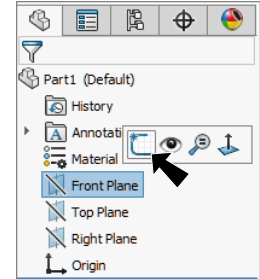



Fig. 1

Step 3. Click **Line**  (L) on the Sketch toolbar.

Step 4. Sketch the wire sweep path starting at the Origin , **Fig. 2**.

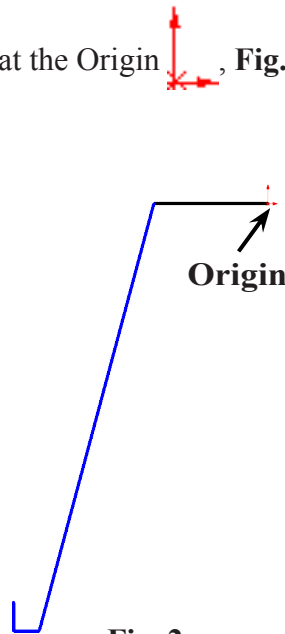


Fig. 2

Step 5. Click **Smart Dimension**  (S) on the Sketch toolbar.

Step 6. Add dimensions, **Fig. 3**. To **Smart dimension angle**, click both lines then move the cursor between lines and click. Key-in **105** for the dimension and press ENTER.

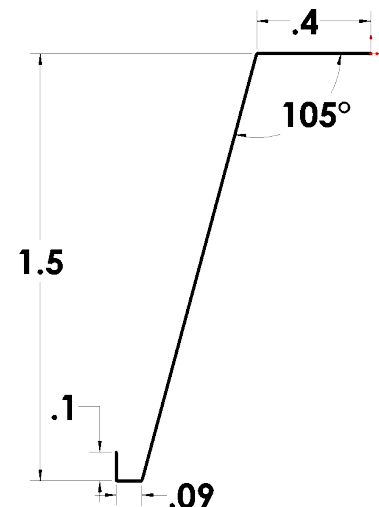


Fig. 3

Step 7. Click **Sketch Fillet**  on the Sketch toolbar.

Step 8. In the Sketch Fillet Property Manager set: under Fillet Parameters, **Fig. 4**

Radius  **.02**

click each bend in wire, the **3 corners**, **Fig. 5**

click OK  **twice**.

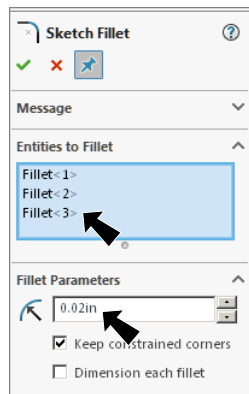


Fig. 4

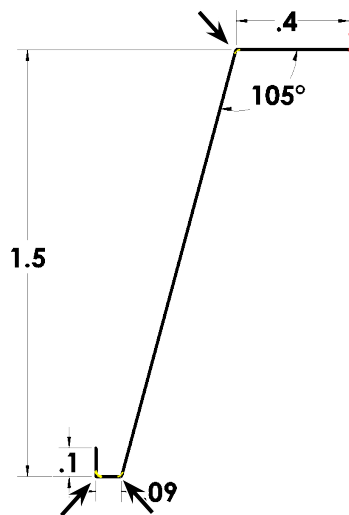


Fig. 5

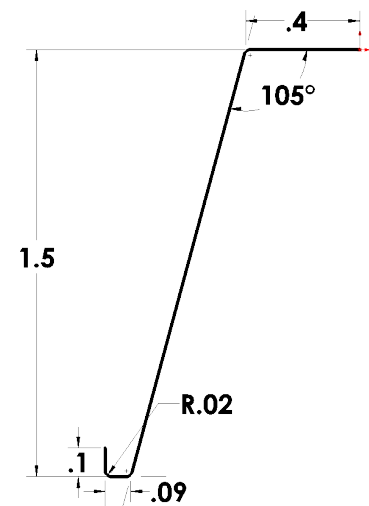





Fig. 6

Step 9. Click **Centerline**  in the **Line flyout**  on the Sketch toolbar.

Step 10. Sketch a vertical centerline from Origin , **Fig. 7**.

Step 11. **Right click graphics and click Select** from menu to unselect Centerline tool.

Step 12. **Drag selection around the sketch** to select all entities, **Fig. 8**.

Step 13. Click **Mirror Entities**  **Mirror Entities** on the Sketch toolbar, **Fig. 9**.

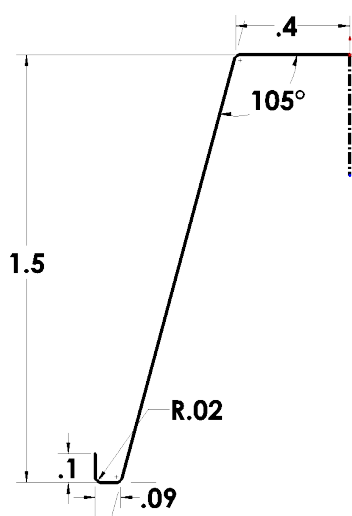


Fig. 7

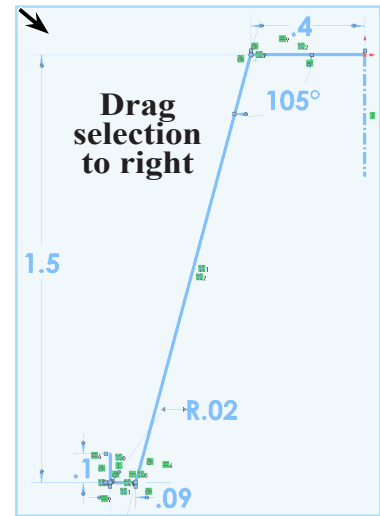


Fig. 8

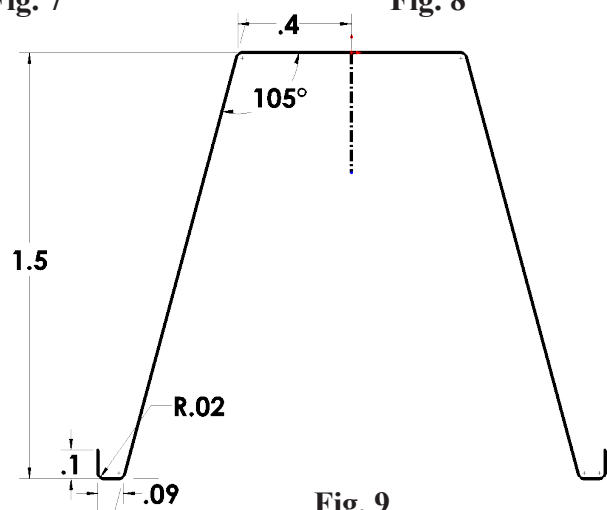


Fig. 9

B. Save as "WHEEL WIRE".

Step 1. Click File Menu > Save As.

Step 2. Key-in **WHEEL WIRE** for filename and press ENTER.




C. Sweep.

Step 1. Click **Isometric**  on the Standard Views toolbar. (**Ctrl-7**)

Step 2. Click **Features**  on the Command Manager toolbar.

Step 3. Click **Swept Boss/Base**  on the Features toolbar.

Step 4. In the Swept Boss/Base Property Manager: under Profile and Path, **Fig. 10** select **Circular Profile Path**

Diameter  **.02**
click any geometry for path 
click OK .

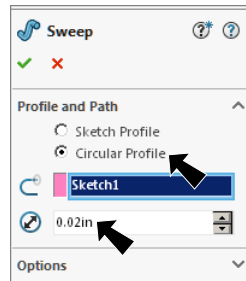


Fig. 10

Step 5. Save. Use **Ctrl-S**.

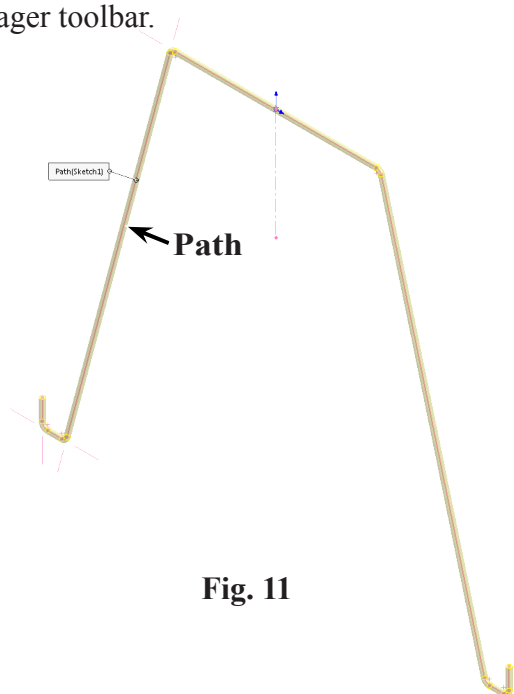



Fig. 11

D. Material Steel 304.

- Step 1. **Right click Material**  in the Feature Manager and click **Edit Material**.
- Step 2. Expand **Steel** in the material tree and select **Steel AISI 304**. Click **Apply** and **Close**.
- Step 3. Save. Use **Ctrl-S**.

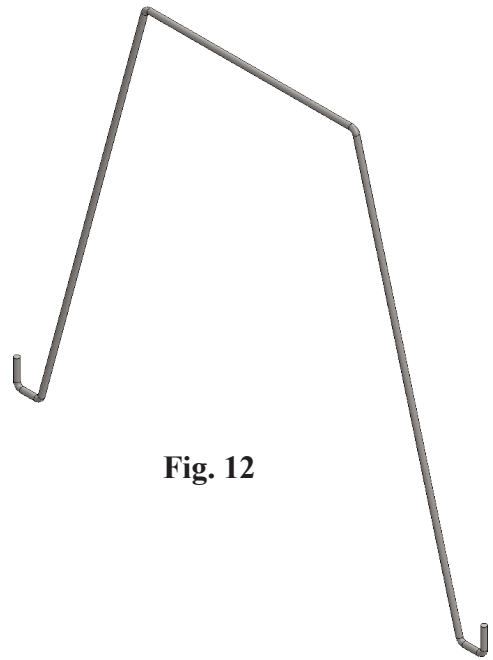


Fig. 12