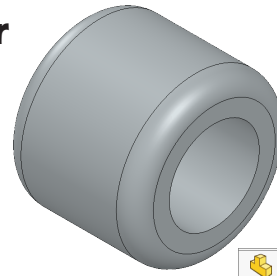




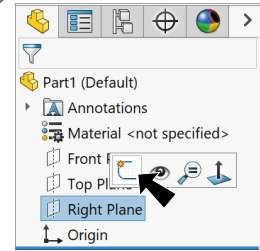
Bike and Trailer Hub



A. Extrude1.

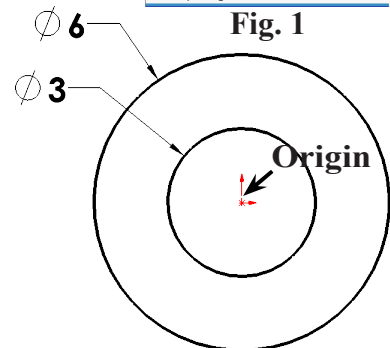
Step 1. Click File Menu > New, click **Part Metric** and OK.

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



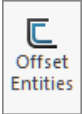
Step 3. Click **Circle**  (S) on the Sketch toolbar.

Step 4. Sketch two circles at **Origin** , **Fig. 2**.

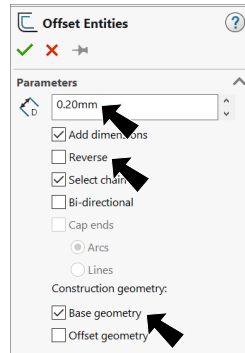



Step 5. Click **Smart Dimension**  (S) on the Sketch toolbar.

Step 6. Dimension **diameters 6 and 3**, **Fig. 2**.

Step 7. Click **Offset Entities**  on the Sketch toolbar.

Step 8. In the Offset Entities Property Manager set: under Parameters, **Fig. 3**



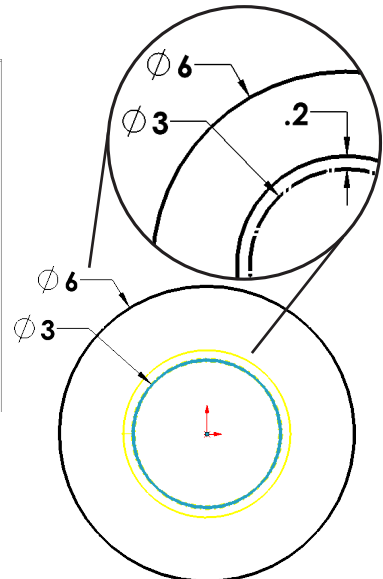
Distance  **.2 (clearance of Axle)**
 uncheck **Reverse**

under Construction geometry

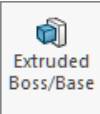
check **Base geometry**
 click **inside circle**, **Fig. 4**

Yellow offset circle on outside - base geometry (construction) on inside

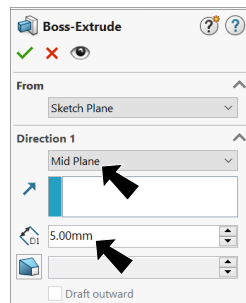
click OK .



Step 9. Click **Features**  on the Command Manager toolbar.

Step 10. Click **Extruded Boss/Base**  on the Features toolbar.

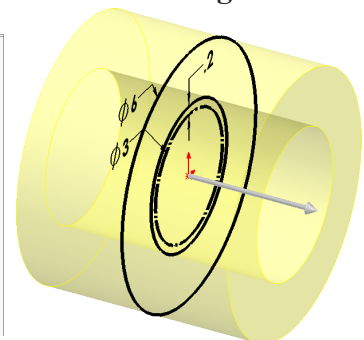
Step 11. In the Boss-Extrude Property Manager set: under Direction 1, **Fig. 5**



End Condition **Mid Plane**

Depth  **5**

click OK .



B. Save as "HUB".

Step 1. Click File Menu > Save As.

Step 2. Key-in **HUB** for the filename and press ENTER.

C. Fillet Edges.

Step 1. Click **Fillet**  on the Features toolbar.

Step 2. In the Fillet Property Manager set:
select **FilletXpert**, Fig. 7

Radius  .7

click **outside circular edges**, Fig. 8

click OK .

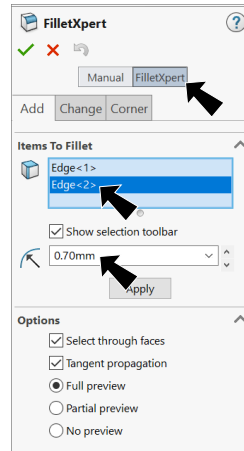


Fig. 7

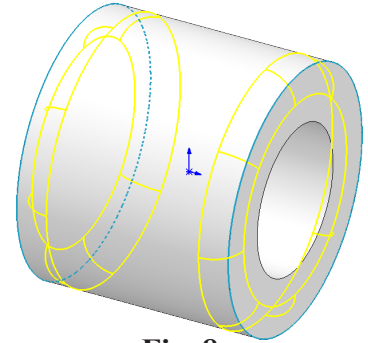




Fig. 8

D. Appearance: Chrome.

Step 1. Click the part to select part, click **Appearances Callout**  on the context toolbar and click **HUB** , Fig. 9.

Step 2. In the Appearances Task pane, expand **Metal** and click **Chrome** and in the lower pane select **chromium plate**, Fig. 10.

Step 3. In the Appearances Property Manager click OK .

Step 4. Save  (Ctrl-S).

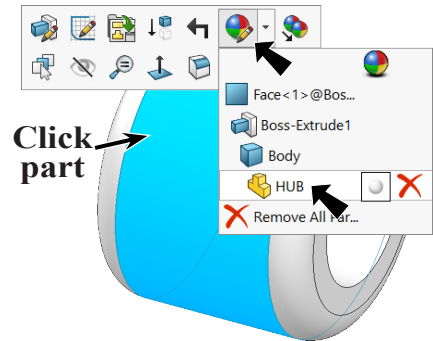


Fig. 9

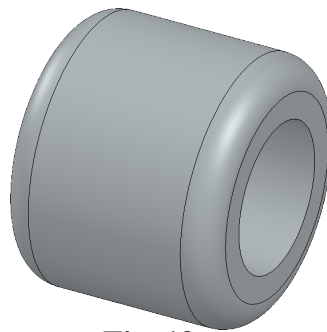


Fig. 12

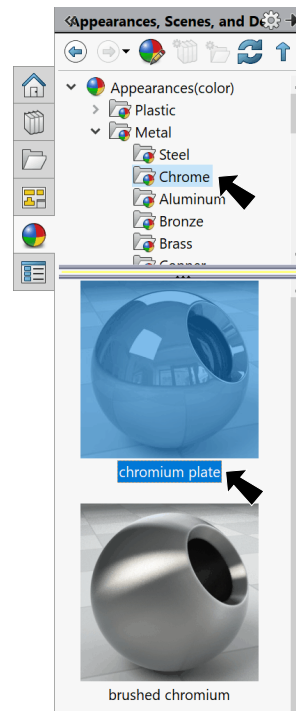


Fig. 10

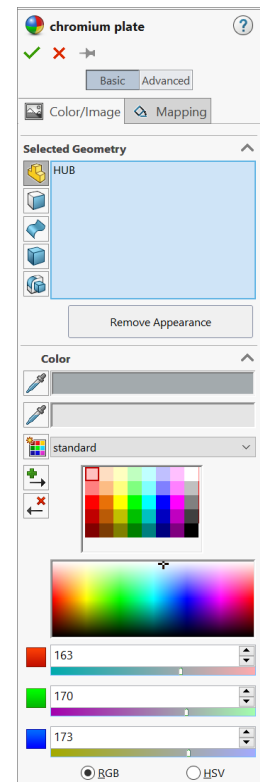


Fig. 11