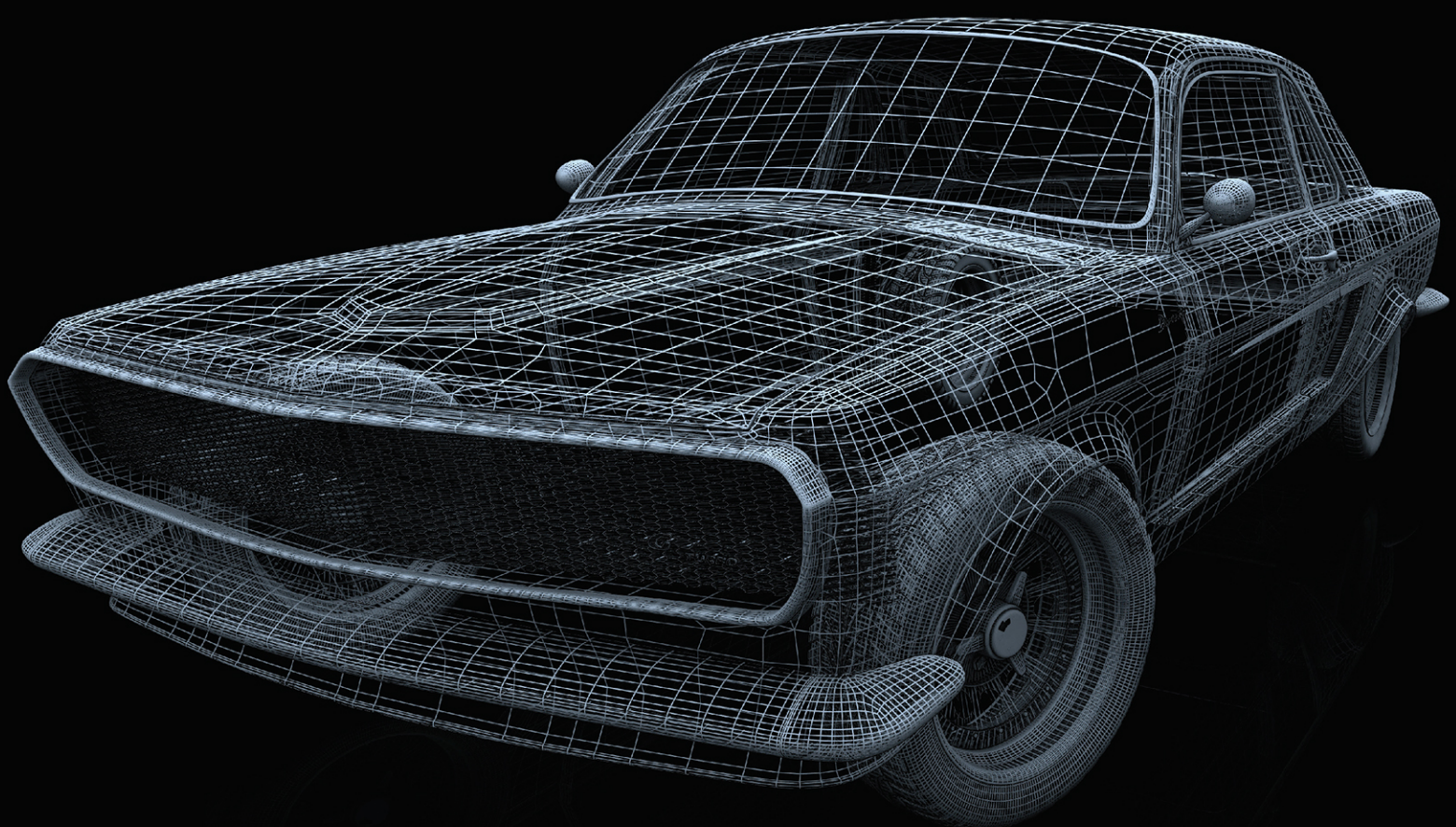
DISCOVERING AutoCAD® 2020



MARK DIX
PAUL RILEY

Discovering AutoCAD® 2020

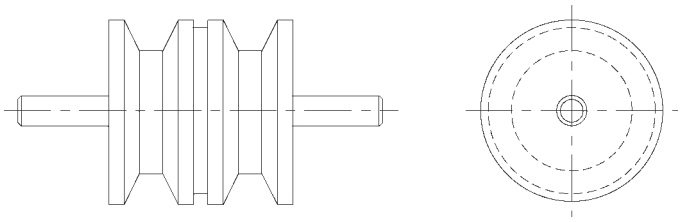
Mark Dix
CAD Support Associates

Paul Riley
CAD Support Associates

Pearson

M Drawing 5-4: *Alignment Wheel* [INTERMEDIATE]

This drawing shows a typical use of the **MIRROR** command. Carefully mirroring sides of the symmetrical front view saves you from duplicating some of your drawing efforts.



Drawing Suggestions

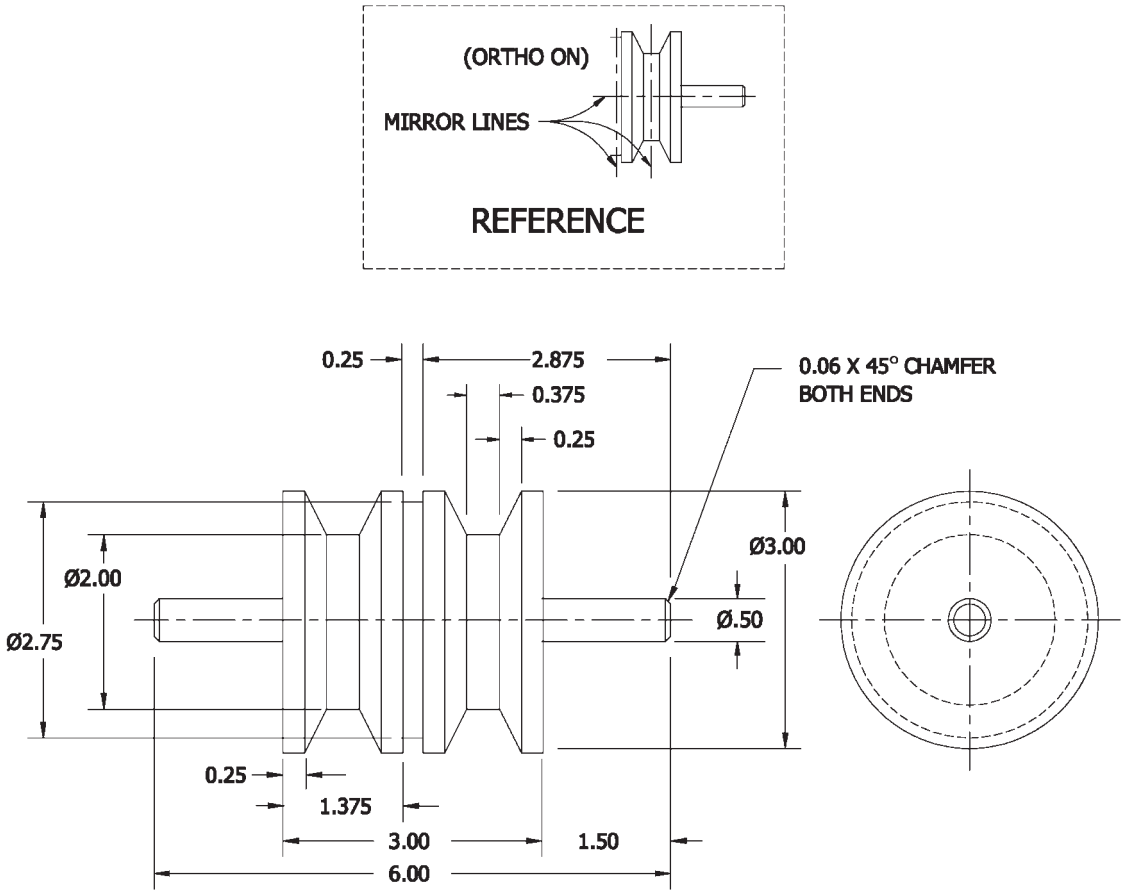
GRID = 0.25

SNAP = 0.0625

LTSCALE = 0.50

LIMITS = (0,0)(12,9)

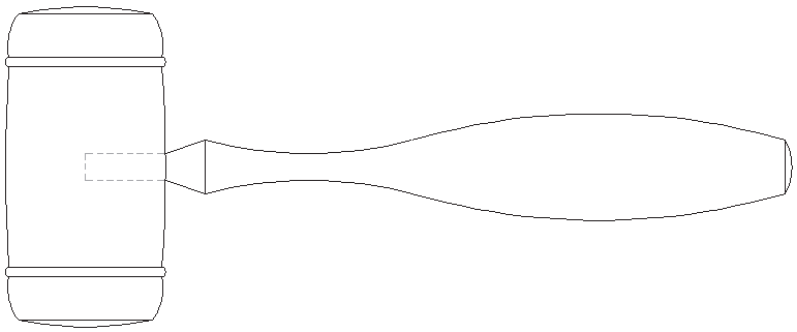
- There are numerous ways to use **MIRROR** in drawing the front view. As the reference shows, there is top–bottom symmetry as well as left–right symmetry. The exercise for you is to choose an efficient mirroring sequence.
- Whatever sequence you use, consider the importance of creating the chamfer and the vertical line at the chamfer before mirroring this part of the object.
- Be careful when drawing the vertical line representing the vertical display of the chamfer. Though the chamfer may appear to fall on a snap point, it does not. Zoom in to check this out. Consider using an **Endpoint object** snap to locate the ends of the chamfer.
- Once the front view is drawn, the right-side view is easy. Remember to change layers for center and hidden lines and to line up the small inner circle with the chamfer.



Drawing 5-4
Alignment Wheel

M Drawing 5-5: *Mallet* [ADVANCED]

There are many arcs in this drawing; we suggest that you use the **3-Point ARC** command to complete this drawing. Look at the overall design of the mallet and find ways to use the **MIRROR** command as well.



Drawing Suggestions

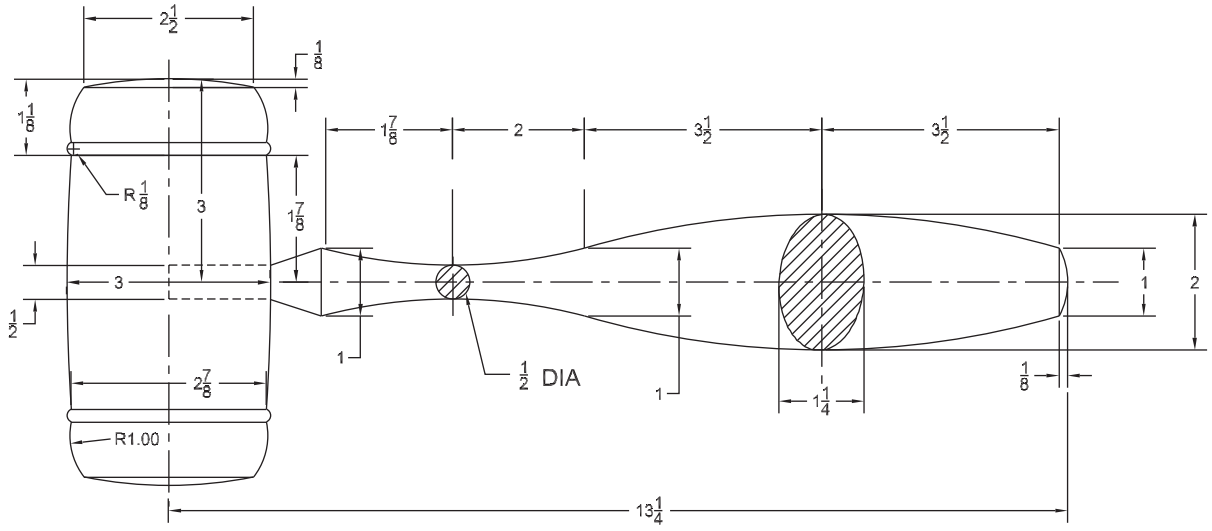
GRID = 1/4

SNAP = 1/16

LTSCALE =1/2

LIMITS = (0,0)(18,12)

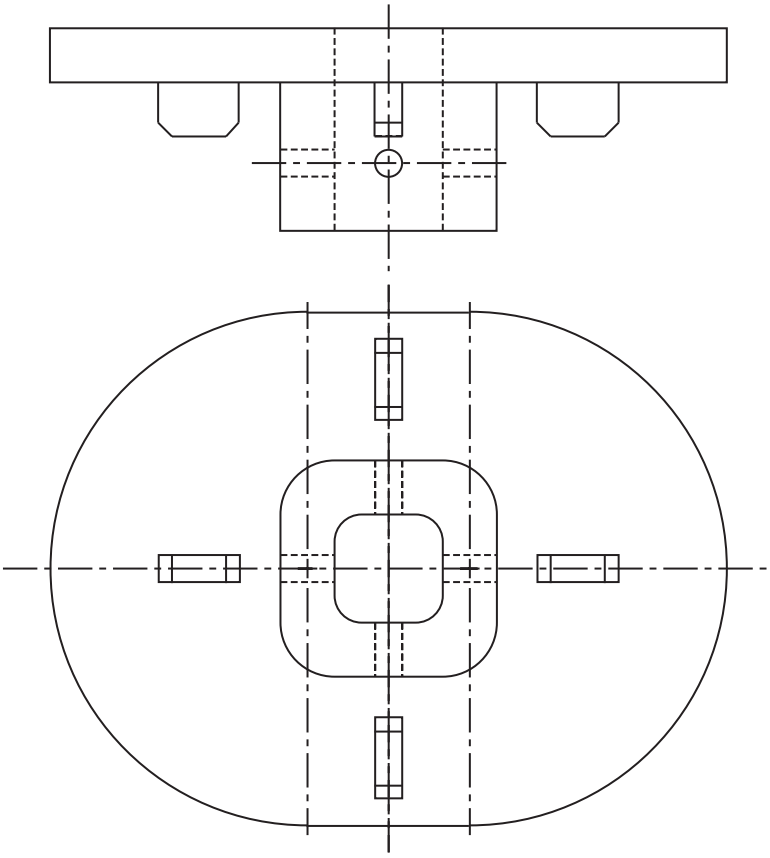
- The arcs that make up the handle are best drawn using **Start, Center, End** or **3-Point Arc**.
- The mallet head can be drawn using **Start, Center, End** and **Start, Center, Radius**.



Drawing 5-5
Mallet

M Drawing 5-6: *Index Guide* [ADVANCED]

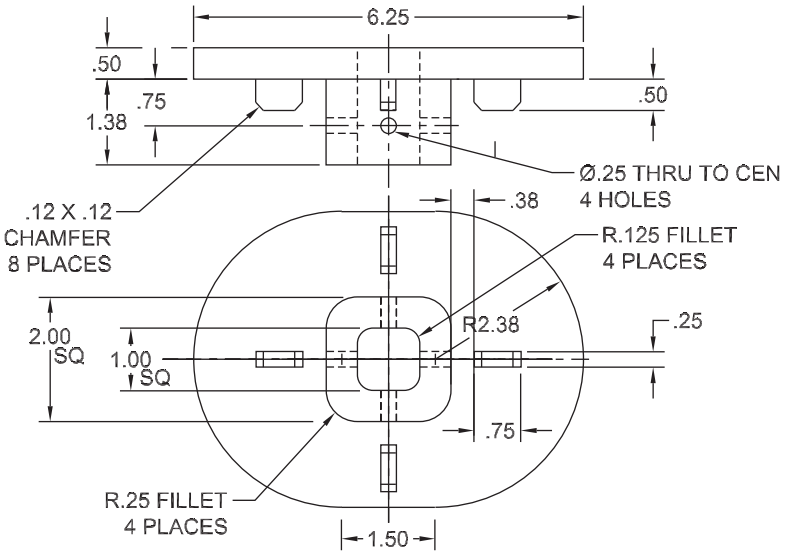
This drawing will give you additional practice drawing polar arrays and arcs and working with two views of an object.



Drawing Suggestions

GRID = .25
SNAP = .125
LTSCALE = .5
LIMITS = 18,12

- Draw the outline of the front view first.
- Project lines up to draw the top view. Work with both views together, projecting lines as needed to keep the views aligned.
- Draw the arc on the right using **Start, End, Radius**.
- Draw the 1.50 lines. Then draw the arc on the left.
- At the center of the object, draw the inner and outer squares, using the **RECTANG** command. Chamfer using the **Polyline** option.
- Draw the small rectangular tabs in the top view; then chamfer and project lines into the front view.
- After completing the rectangular tabs in the front view, create a polar array.
- Draw all hidden lines as shown. Explore ways to use another polar array.



Drawing 5-6
Index Guide