AUXILIARY VIEW PROBLEMS

The problems in Figs. 10.27–10.58 are to be drawn with instruments or freehand. If partial auxiliary views are not assigned, the auxiliary views are to be complete views of the entire object, including all necessary hidden lines.

If it is often difficult to space properly the views of an auxiliary view drawing. In some cases it may be necessary to make a trial blocking out on a preliminary sheet before starting the actual drawing. Allowances for dimensions must be made if metric or decimal dimensions are to be included. In such case, the student should study §§13.1–13.25.

Problems in convenient form for solution may be found in Technical Drawing Problems, Series 1, by Giesecke, Mitchell, Spencer, Hill, Ogilby, and Norwalk; Technical Drawing Problems, Series 2, by Spencer, Hill, Ogilby, and Norwalk; and Technical Drawing Problems, Series 3, by Spencer, Hill, Ogilby, and Norwalk; all designed to accompany this text and published by Macmillan Publishing Company.

Fig. 10.27 RH Finger.
Given: Front and auxiliary views.
Required: Complete front, auxiliary, left-side, and top views (Layout A–3 or A4–3 adjusted).

Fig. 10.28 V-Block.
Given: Front and auxiliary views.
Required: Complete front, top, and auxiliary views (Layout A–3 or A4–3 adjusted).

Fig. 10.29 Auxiliary View Problems. Make freehand sketch or instrument drawing of selected problem as assigned by instructor. Draw given front and right-side views, and add incomplete auxiliary view, including all hidden lines (Layout A–3 or A4–3 adjusted). If assigned, design your own right-side view consistent with given front view, and then add complete auxiliary view. Problems 1–6, 13–18, and 25–30 are given in metric dimensions. Problems 7–12 and 19–24 are given in decimal-inch dimensions.
Fig. 10.30  Anchor Bracket. Draw necessary views or partial views (Layout A-3 or A4-3 adjusted). *

Fig. 10.31  Centering Block. Draw complete front, top, and right-side views, plus indicated auxiliary views (Layout B-3 or A3-3). *

Fig. 10.32  Clamp Slide. Draw necessary views completely (Layout B-3 or A3-3). *

Fig. 10.33  Guide Block. Given: Right-side and auxiliary views Required: Right-side, auxiliary, plus front and top views—all complete (Layout B-3 or A3-3). *

Fig. 10.34  Angle Bearing. Draw necessary views, including a complete auxiliary view (Layout A-3 or A4-3 adjusted). *

Fig. 10.35  Guide Bracket. Draw necessary views or partial views (Layout B-3 or A3-3). *

Fig. 10.36  Rod Guide. Draw necessary views, including complete auxiliary view showing true shape of upper rounded portion (Layout B-4 or A3-4 adjusted). *

Fig. 10.37  Brake Anchor. Draw necessary views, including partial auxiliary view showing true shape of cylindrical portion (Layout B-4 or A3-4 adjusted). *

Fig. 10.38  45° Elbow. Draw necessary views, including a broken section and two half views of flanges (Layout B-4 or A3-4 adjusted). *

Fig. 10.39  Angle Guide. Draw necessary views, including a partial auxiliary view of cylindrical recess (Layout B-4 or A3-4 adjusted). *

Fig. 10.40  Holder Block. Draw front and right-side views (2.60" apart) and complete auxiliary view of entire object showing true shape of surface A and all hidden lines (Layout A-3 or A4-3 adjusted). *

Fig. 10.41  Control Bracket. Draw necessary views, including partial auxiliary views and regular views (Layout C-4 or A2-4). *

*If dimensions are required, study §§13.1-13.25. Use metric or decimal-inch dimensions as assigned by the instructor.
Fig. 10.42 Tool Holder Slide. Draw given views, and add complete auxiliary view showing true curvature of slot on bottom (Layout B-4 or A3-4 adjusted).*

Fig. 10.43 Adjuster Block. Draw necessary views, including complete auxiliary view showing true shape of inclined surface (Layout B-4 or A3-4 adjusted).*

Fig. 10.44 Guide Bearing. Draw necessary views and partial views, including two partial auxiliary views (Layout C-4 or A2-4).*

Fig. 10.45 Drill Press Bracket. Draw given views and add complete auxiliary view showing true shape of inclined face (Layout B-4 or A3-4 adjusted).*

Fig. 10.46 Brake Control Lever. Draw necessary views and partial views (Layout B-4 or A3-4 adjusted).*

Fig. 10.47 Shifter Fork. Draw necessary views, including partial auxiliary view showing true shape of inclined arm (Layout B-4 or A3-4 adjusted).*

Fig. 10.48 Cam Bracket. Draw necessary views or partial views as needed. For threads, see §§15.9 and 15.10 (Layout B-4 or A3-4 adjusted).*

Fig. 10.49 RH Tool Holder. Draw necessary views, including partial auxiliary views showing 108° angle and square hole true size. For threads, see §§15.9 and 15.10 (Layout B-4 or A3-4 adjusted).*

Fig. 10.50 Draw secondary auxiliary views, complete, which (except Prob. 2) will show the true sizes of the inclined surfaces. In Prob. 2, draw secondary auxiliary view as seen in direction of arrow (Layout B-3 or A3-3).*

*If dimensions are required, study §§13.1–13.25. Use metric or decimal-inch dimensions as assigned by the instructor.
Fig. 10.51  Control Bracket. Draw necessary views including primary and secondary auxiliary views so that the latter shows true shape of oblique surface A (Layout B—4 or A3—4 adjusted). *

Fig. 10.52  Holder Block. Draw given views and primary and secondary auxiliary views so that the latter shows true shape of oblique surface (Layout B—4 or A3—4 adjusted). *

Fig. 10.53  Dovetail Slide. Draw complete given views and auxiliary views, including view showing true size of surface 1—2—3—4 (Layout B—4 or A3—4 adjusted). *

Fig. 10.54  Dovetail Guide. Draw given views plus complete auxiliary views as indicated (Layout B—4 or A3—4 adjusted). *

Fig. 10.55  Adjustable Stop. Draw complete front and auxiliary views plus partial right-side view. Show all hidden lines (Layout C—4 or A2—4). *

Fig. 10.56  Tool Holder. Draw complete front view, and primary and secondary auxiliary views as indicated (Layout B—4 or A3—4 adjusted). *

Fig. 10.57  Box Tool Holder for Turret Lathe. Given: Front and right-side views. Required: Front and left-side views, and complete auxiliary view as indicated by arrow (Layout C—4). *

Fig. 10.58  Pointing Tool Holder for Automatic Screw Machine. Given: Front and right-side views. Required: Front view and three partial auxiliary views (Layout C—4). *

*If dimensions are required, study §§13.1—13.25. Use metric or decimal-inch dimensions as assigned by the instructor.