

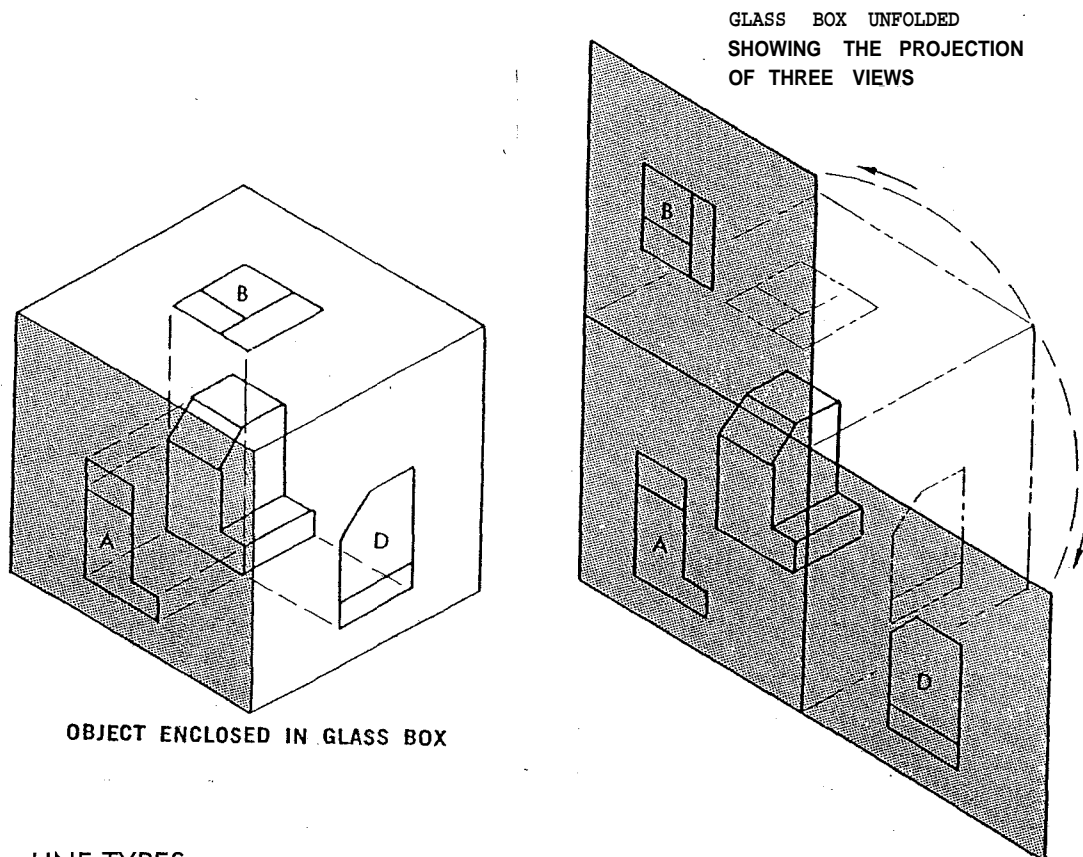
ORTHOGRAPHIC DRAWINGS

Orthographic views are the type of views used in technical drawings to describe the shape of objects exactly and completely. The most informative view of the object to be represented is normally chosen as the principle view (front view).

Orthographic representation is obtained by parallel projections of two-dimensional views positioned relative to each other.

Once the principle view (front view) has been established, the other views are rotated or positioned so they lie on the same plane (drawing surface) on which the front view is projected.

For clarity and good appearance the views should be well balanced on the drawing paper. There should be enough space provided between the views so that when dimensions are added to the drawing, it will not be crowded. For most drawings, 40mm (1 1/2") is enough space to leave between views.



LINE TYPES

1. **Object** - a solid line used to indicate all visible edges of an object. They should stand out clearly in contrast to other lines so that the shape of an object is apparent to the eye
2. **Hidden** - a dashed line used to show surfaces, edges, or corners of an object that are hidden from view.
3. **Center** - The center line is used to show the center of holes and symmetrical features.

Establishing the Front View of An Object.

Most objects that must be described by orthographic projection do not have a front like cars or houses. Therefore, to determine the front view of an object that has no recognizable front, apply the following rules:

1. Choose the side of the object that shows its length and provides the most information about its shape.
2. Draw the front view in a position that is balanced and pleasing to the eye.

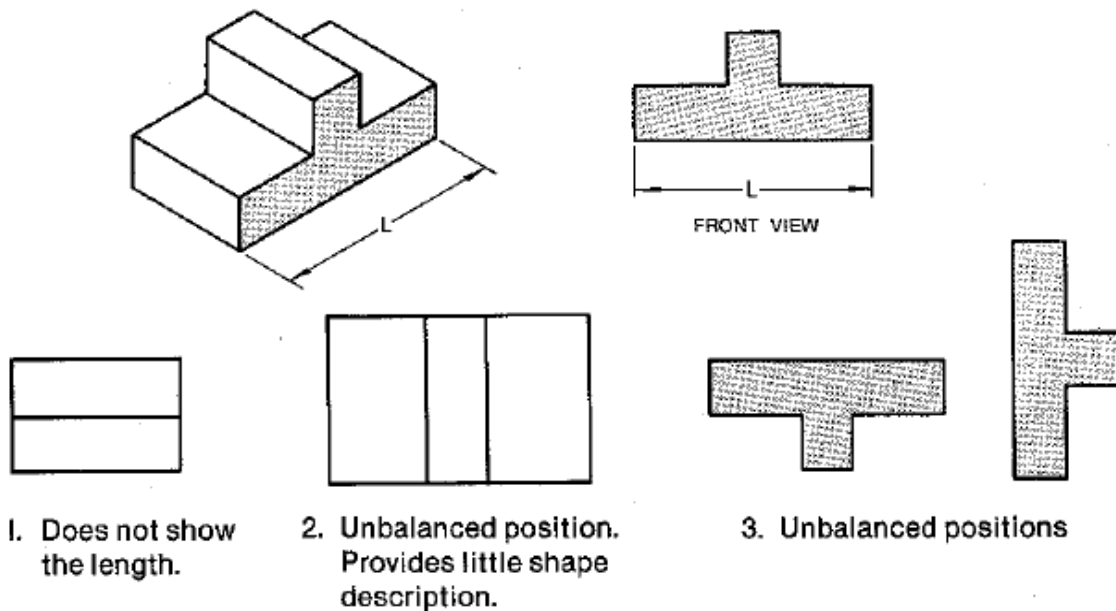
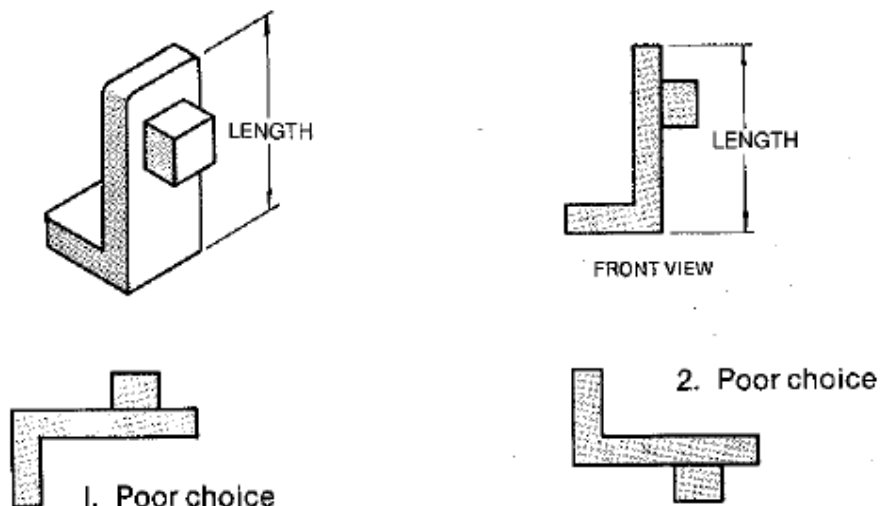


FIG. 4:6 SELECTION OF THE FRONT VIEW

The front view of most objects are drawn with the length in a horizontal position. However, some objects appear better balanced and more pleasing to the eye when the front view is drawn with the length of the object in a vertical position.



Orthographic Drawings: Review Questions

TDJ20

Name: _____ **Date:** _____

Answer the following questions in full sentences.

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1. Explain the purpose of "Orthographic Views" and where they are used.
2. Define "Orthographic Representation".
3. Why should Orthographic Views be balanced on a drawing?
4. Why are the views spaced on a drawing? How much space should be provided between views?
5. Name and Describe the 3 main Line Types used on an orthographic drawing.
6. How is the front view of an object established?