

**MECHANICAL DRAWING.
WRITTEN FOR THE USE OF THE
NAVAL CADETS AT THE UNITED
STATES NAVAL ACADEMY**

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Mechanical drawing. Written for the use of the naval cadets at the United States naval academy by F. W. Bartlett

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F. W. BARTLETT

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BY

F. W. BARTLETT,
Lieutenant Commander U. S. Navy.

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PREFACE.

THE attempt is made in this treatise to find the methods of practical work in use in most drafting-rooms and to give these methods in detail for the use of those studying Mechanical Drawing.

The author has endeavored to eliminate any personal peculiarity of method, and has based the treatise on the methods in use in the United States Navy, as far as these methods could be determined. As general methods differ slightly, the drawings referred to for the general instruction have been those of the Bureau of Steam Engineering of the Navy Department, and the methods of that bureau have been followed. The special methods of the Bureau of Ordnance and of the Bureau of Construction are studied and used after the main course is completed. The differences are, however, slight and refer principally to center lines and dimension lines. The Bureau of Ordnance uses the decimal scale also.

All the minor points of method that are found only by experience cannot be given to a large class by a small corps of instructors, and the endeavor is made to place these methods where they may be found and studied. The instructor may then refer each one to the book instead of giving to each individual the same detail.

The system of instruction urged does away with copying. In fact, no copying is allowed and no drawings are available for copying.

The First Drawings are purposely full of detail, so that the eye, mind, and hand may be trained to accuracy together, each depending on the others. The instruction lessens as the figures follow each other, only the new and most important points being noticed. The attempt is made to have the triangular scale used so that it will be thoroughly understood.

No Geometry or Descriptive Geometry is given, as these branches are taught in another department at the Naval Academy.

All but Sheet III has been carefully criticised by Mr. A. M. P. Maschmeyer, Chief Draftsman in the Bureau of Steam Engineering at the Navy Department, and the author is much indebted to him for his kindness and his thorough criticism.

The naval officers associated in this work have assisted materially with suggestions. I am particularly indebted to Lieut. Commander John L. Gow, U. S. Navy, for his unsparing and accurate criticisms.

F. W. BARTLETT,
Lieut. Commander, U. S. N.

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