

relate; others try the spiral method, where the principles are reviewed in the light of the principles of the calculus. With others the calculus is not studied as a separate subject and mechanics is handled by laboratory methods. In general the calculus is studied later than is the practice in our country and the whole plan of procedure is not outlined as definitely as with us. The case is worse in the private schools of similar kind. Undoubtedly the situation calls for instructors of ability to handle the applied mathematics—or to side-step its problems with agility.

The subject matter during the first half year must necessarily be quite elementary, and there are evidences of ingenious ways of dodging the rigors of the calculus. On the other hand there are equally ingenious demonstrations of a “near calculus” which in the nature of things must always arise in actual engineering problems. Definitions, approximations, experiments, mensurations, rules, formulas, instruments, models—all are used. Most excellent aids—all of them; but should they be first aids?

Examinations are given at the end of the course. These are partly oral, partly written. They are in charge of special committees of school officials and other dignitaries, including the instructors. The typical examination papers shown seem to be not at all as difficult as the average semester examinations on similar work in our technical schools.

A chapter on texts in use, their strong and weak points, is given. A list of reference works and journals is included. Slide rules, planimeters and models used in teaching are discussed. Typical methods of handling fundamental principles naturally calling for the calculus without its aid are illustrated. Graphical methods with special reference to graphic statics receive much encouragement.

Descriptive geometry here, as in our technical schools, aims to develop the students' power to see space relations. The curriculum seems not to include the mathematical treatment of the subject which so many critics have declared desirable.

ERNEST W. PONZER.

*Astronomy, A Popular Handbook.* By HAROLD JACOBY. The Macmillan Company. xi + 435 pages.

THIS book has a broader purpose than its title would seem to indicate. It is intended to be suitable not only for the