Statique et Résistance des Matériaux. By Paul Montel. Paris, Gauthier-
Villars, 1924. vi + 273 pp.

The author states in the preface that the book represents a course
given in the École des Beaux-Arts on statics and resistance of materials.
The methods are almost wholly graphic and confined to problems
in the plane. In the first one hundred and sixty-two pages, which
are devoted to statics, the various methods for determining the stresses
in a frame work are given and also graphical methods for the deter-
mination of the center of gravity and moments of inertia. In the
chapters on resistance of materials, the main subjects considered are
the theory of the beam, the buckling of a long thin rod under thrust,
and arches.

The subject is approached in a neat way by calling attention to
the difference between the theory of elasticity and the theory of
the resistance of materials and the difference between the statically
determinate and indeterminate problem is emphasized throughout.
Before taking up frame works there is a chapter on reactions of
the supports in which the different types of support are considered.
The manner in which these things are done leaves the reader with
the impression that the subjects treated have been presented more
systematically than is generally the case in text books of this kind.

Two or three oversights may be noted. In connection with the
discussion of the funicular polygon on page eighteen, the author
speaks of two forces forming a couple but a couple is not defined
till page thirty-nine. The stress diagram in Figure 64 should have
the line df replaced by af. The statement at the bottom of page one
hundred and seventy nine that both theory and practice lead to the
value $(2/5)E$ for the shearing modulus is open to question.

PETER FIELD

*Binomial Factorizations, giving extensive Congruence-Tables and
Factorization-Tables.* By Lt.-Col. Allan Cunningham. London, Francis
Hodgson. 1923. Vol. I. 96+287 pp.

Binomial Factorizations. By Lt.-Col. Allan Cunningham. London,
Francis Hodgson. 1923. Vol. IV. 6+160 pp. Supplement to vol. I.

These two volumes are part of the outcome of thirty years of labor
of the veteran computer. There are seven volumes of the work and
the greater part is already printed off. The war has delayed the
appearance of much of it. The present volumes contain an extensive
list of the smallest root of congruences of the type $y^n + 1 \equiv 0 \pmod{p^k}$
for various values of p, k and n. Thus there is a table, begun in the
first volume and carried on into volume IV giving the smallest values of y
satisfying the congruence $y^2 + 1 \equiv 0 \pmod{p}$ for available prime values