extension formed by adjoining an element which satisfies an algebraic equation in R is called an algebraic extension. If the element which is adjoined does not satisfy an algebraic equation in R the extension is called transcendental.

From the simple transcendental extensions formed by the adjunction of the element x to R the author passes to the algebraic extensions by assigning to x a value which is a root of an algebraic equation.

Finally by making use of the theorem regarding the decomposition of rings the results found are extended to rings having more than one prime divisor.

G. E. WAHLIN.

Calcul des Systèmes Elastiques de la Construction. Par ERNEST FLAMARD. Paris, Gauthier-Villars, 1918.

THIS work is a treatise of 200 pages, published under the imprint of the "Encyclopédie Industrielle," on the application of the principle of least work to the calculation of the reactions and deflections of straight and curved beams, the elastic arch, and pin-connected structures having redundant members or supports.

The feature of most interest to the writer of this review is the evidence the work furnishes that there are mathematicians and engineers in France today of such mental poise that they are able to concentrate their attention on a purely theoretical question of method which brings out no new results and has absolutely no relation to the war or the future.

In this work it is first shown that the elastic forces acting on any section of a solid are reducible to three static elements consisting of a bending moment and normal and shearing forces. The expressions for the work of deformation due to these three elements are then derived, as well as Castigliano's well known theorem, giving the linear and angular displacements of the external forces and couples in terms of the partial derivatives of the work of deformation with respect to these elements. This is followed by the derivation of the principle of least work of deformation. These results are then extended to include the effect of change in temperature. In applying the results to beams under vertical loading, however, it is pointed out that the temperature forces are the only external forces acting parallel to the axis of the beam, and