algebraic geometry. The transparency of style makes the book excellent for use as a text or for the practicing mathematician who wishes to absorb the essentials of the theory quickly and painlessly. The expert will be especially grateful for the unified presentation of results which, except for the more elementary parts already available in several texts, have thus far appeared only in Ergebnisse-style monographs or in the many widely scattered original papers of the last 25 years.

The chapter headings are: I. The primary decomposition. II. Residue rings and rings of quotients. III. Some fundamental properties of Noetherian rings. (This includes Krull's intersection theorem, symbolic powers of prime ideals, composition series for primary ideals, and dimension theory.) IV. The algebraic theory of local rings. (Including accounts of regular local rings and the quasigleichheit theory.) V. The analytic theory of local rings. (The existence of a local ring's completion and some transition properties.) The book ends with brief notes indicating the history and applications of the theory. The applications indicated are of course to algebraic geometry, but the author quite naturally refrains from identifying the two subjects.

Polynomial rings appear only incidentally or as examples and no mention is made of their unique factorization. Very little is said about rings of dimension one and even the theory of Dedekind rings, whose full development would have required about one extra page at the appropriate place, is omitted. Field theory, valuation theory, the structure theory of complete local rings, the important relations existing between the ideals of a ring and an integrally dependent over-ring, the Hilbert function, and unmixedness theorems are either missing entirely (presumably for reasons of space, connectedness and essentiality) or are mentioned in passing, in the notes at the end. There is a brief bibliography, most of whose items are made mainly of historical interest by the present tract. A brief list of the best (as opposed to the earliest) references would have been of more help to the unguided reader wishing to pursue the subject further.

MAXWELL ROSENLICHT

Complexes linéaires. Faisceaux de complexes linéaires. Suites et cycles de complexes linéaires conjugués. By A. Charrueau. Paris, Gauthier-Villars, 1952. 84 pp.

This memoir, as far as new contributions to the theory of linear complexes are concerned, is based primarily on a series of notes of the author appearing in the *Comptes Rendus* (Paris) during 1948