treatment than the rest. One feels this not so much because of the relative amount of space devoted to the various subjects but rather because these 'set-theoretical' results are more final and self-sufficient in character than the others, some of which sometimes appear to be somewhat technical and not as much justified in themselves.

Many things (Keisler's two-cardinal theorem, Morley's "Hanf-number" theorem on omitting types) could have been put in their true contexts only in extensions of first order model theory (generalized quantifiers, infinitary logic).

A particular matter that should have received more attention in the book is Fraissé-Ehrenfeucht games (and some generalizations). These are treated only in exercises. These games are important, particularly through the work of Lindström who applied them to give a theory of preservation theorems ("regular relations") (Theoria **32** (1966), 171–185), and to his celebrated work on characterizing first order logic.

It should be added to the discussion of transcendence rank that the rank of a formula defined in a not necessarily ω_1-saturated model is simply taken to mean rank in any (cf. Lemma 7.1.20) ω_1-saturated elementary extension. Then the first sentence of the proof of 7.1.23 can be deleted, and it should be because as it stands it is incorrect. Furthermore, the proof of 7.1.23 uses the fact that α is regular (and Victor Harnik tells us that the theorem is false without this assumption).

The proof of 7.2.2 is written up in a somewhat awkward way, and in fact, the induction hypothesis (4) is not stated correctly. In the proof of 7.3.7, the definition of the structure A was omitted (but can be guessed). On p. 480 the numerical code (1) should be shifted to the next displayed formula.

In the review, the reviewer could not bring himself to suppressing the use of the word "structure" in favor of the word "model" as it is done in the book.

In conclusion, let us say that in this book model theory has received a thoroughly worthy exposition that will no doubt help establish the deserved status of model theory as an original, rich, useful and mature branch of mathematics.

M. MAKKAI

BULLETIN OF THE
AMERICAN MATHEMATICAL SOCIETY
Volume 82, Number 3, May 1976

Mathematical theory of dislocations and fracture, by R. W. Lardner, University of Toronto Press, Toronto, 1974, xi+363 pp.

The mathematical theory of elasticity has a rich and varied history. It is concerned with the mathematical study of the response of elastic bodies to the action of forces. There is no doubt that the linear theory is one of the more successful theories of mathematical physics. A beautiful account of this theory is found in Gurtin (1970).

The first attempt to set the elasticity of bodies on a scientific foundation was undertaken by Galileo and is described in his Discourses, published in