

BULLETIN (New Series) OF THE
 AMERICAN MATHEMATICAL SOCIETY
 Volume 19, Number 2, October 1988
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 0273-0979/88 \$1.00 + \$.25 per page

- Ω -*bibliography of mathematical logic*, edited by Gert H. Müller in collaboration with Wolfgang Lenski. Springer-Verlag, Berlin, Heidelberg, New York, 1987,
- Vol. I: *Classical logic*, edited by Wolfgang Rautenberg. xxxix+485 pp., \$170.00. ISBN 3-540-17321-8.
- Vol. II: *Non-classical logics*, edited by Wolfgang Rautenberg. xxxvii+469 pp., \$170.00. ISBN 3-540-15521-X.
- Vol. III: *Model theory*, edited by Heinz-Dieter Ebbinghaus. xlv+617 pp., \$200.00. ISBN 3-540-15522-8.
- Vol. IV: *Recursion theory*, edited by Peter G. Hinman. xlv+697 pp., \$200.00. ISBN 3-540-15523-6.
- Vol. V: *Set theory*, edited by Andreas R. Blass, li+791 pp., \$230.00. ISBN 3-540-15525-2.
- Vol. VI: *Proof theory and constructive mathematics*, edited by Jane E. Kister, Dirk van Dalen and Anne S. Troelstra. xli+405 pp., \$155.00. ISBN 3-540-15524-4.

Oranges. This collection of six hefty, orange volumes is a dream come true for anyone interested in mathematical logic and its history. It contains a remarkably complete bibliography of the field, from 1879, the year of Frege's *Begriffsschrift*, through 1985.

I was delighted to be asked to review this bibliography, since I knew that short of hocking my car or personal computer, it was the only way I would ever own one. And having had the bibliography for some months, I have not been disappointed. It is enormously useful in looking up references to works dimly remembered, in finding one's way to surprising works in fields one thinks one knows, and in gaining a better appreciation for the breadth and depth of work done in mathematical logic over the past hundred odd years.

The six volumes cover classical logic, nonclassical logic, model theory, recursion theory, set theory, and (in one volume) proof theory and constructive mathematics. Each volume has a number of introductory sections, including a general survey of work in the volume, and useful appendices of various sorts. However, the core of each volume consists of three indices: Subject Index, Author Index, and Source Index.

First comes the Subject Index, where items are ordered by means of a modification of the 03Xxx part of the AMS Subject Classification Scheme, the part that covers mathematical logic. (Since only mathematical logic is covered in the bibliography, the "03" part of the notation is dropped.) Within that, items are arranged by year of publication, and within that, alphabetically by author. For example, opening the Subject Index of Volume V (Set Theory) at random, we find section E10 on ordinal and cardinal numbers. For the year 1915 there is only one item:

Hartogs, F., *Ueber das Problem der Wohlordnung.*

◇ E10 E25 ◇