



## Plumbing Plum

**Plumbing: Installation and Design** by L.V. Ripka (American Technical Publishers, Homewood, IL 60430). 1987. 365 pages. Hardcover. \$24.96.

My first impression as I began reading *Plumbing*, by L.V. Ripka, was that it was suitable only as a textbook for apprentices in the trade. But I soon saw its wider appeal, since there are many times on small jobs when a carpenter is faced with making minor plumbing changes that don't justify calling in a sub. Ripka tells you not only how to do the job right, but why one way is better than another. There may be more information here than you'll need, but this book is to plumbing what *Fundamentals of Carpentry* or *Modern Carpentry* is to building with wood — a comprehensive guide to the trade.

The book opens with a thumbnail history of plumbing through the ages (the term "plumber" comes from the Latin *plumbarius*, or "worker of lead"), and an introduction to the pecking order in the trade. The definitions section is helpful if you're confused by terms like "vent stack" and "stack vent." And the safety synopsis treats everything from the obvious (don't wrestle on the job) to the easily overlooked (care of oxyacetylene tanks).

The third chapter covers plumbing materials, and the tools and techniques of following chapters are introduced as they apply to each specific material. Ripka presents common material types, sizes, fittings, and uses, as well as practical tips, such as why you can't heat malleable galvanized iron fittings or why you shouldn't use copper pipe for urinal drains.

Tools fascinate me. I'm continually amazed at how ingenious human beings are when inventing gadgets to do the seemingly impossible, and to do it faster and easier. Ripka's tool chapter runs

the gamut, from cutters, reamers, and vises to specialty oilers, flaring devices, and benders. I was particularly intrigued by the variety of wrenches available, from the simple box- and open-end mainstays to chain wrenches, smooth jaw styles (for chrome pipe), and compound wrenches (to increase your mechanical advantage). And let's not forget the basin wrench, without which

you could never connect faucets from below without becoming homicidal.

Next comes specific instruction on joining and supporting all kinds of horizontal and vertical pipe runs. Clear, step-by-step photos and text describe the procedures for each kind of pipe, from forming oakum and lead joints to "sweating" copper. For me, all of this is easier read than done. But, while there may be no substitute for demonstration and hands-on experience, it would be hard to find a manual that

offered better instruction than Ripka's book. Where else can you pick up tips such as the importance of an "interference fit" when solvent welding plastic pipe?

Ripka uses practical examples taken from single-family, duplex, apartment, high-rise, office, and industrial buildings to investigate in detail the how's and why's of DWV, storm drain, and supply systems. Pipe sizing and layout, proper and improper venting methods, and coping with frictional and height losses, are among the topics covered. Another chapter describes all kinds of fixtures, from lavs and bidets to drinking fountains and water softeners. The only omission I noted was instantaneous water heaters; Ripka discusses only gas and electric storage units.

Finally, all the preceding information is applied to the plumbing of a typical suburban tract house, including manufacturer's cut sheets, the specifics of routing pipe through framing, and room-by-room, fixture-by-fixture installation. An appendix on math for plumbers and an illustrated glossary close the book.

It's hard to imagine a plumbing text better suited to novices and old-timers alike.

— Paul Hanke



### Footnotes

**Two From Home Builder Press.** Second editions of these two paperback volumes have recently been released by Home Builder Press, National Association of Home Builders (NAHB), 15th and M Streets NW, Washington, DC 20005.

*Accounting and Financial Management for Builders* (83 pages, \$25) contains an excellent introduction to accounting basics, and includes the complete NAHB Chart of Accounts (with commentary), as well as the Basic Chart of Accounts for Small Builders. You'll also get

some help choosing a bookkeeper and accountant, preparing financial reports (samples are provided), and setting up job costing procedures.

*Scheduling for Builders* (by Jerry Householder, 83 pages, \$23) is a step-by-step introduction to critical path method (CPM) diagrams. Two case studies are used to illustrate tracking procedures from the planning and scheduling phases to the monitoring phase. The text clearly presents basic concepts, such as "critical path" and "float," and numerous diagrams help to demonstrate how bar charts, arrow diagrams, and precedence networks are used in practice. — Sal Alfano