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THE WEEKLY SUMMARY OF CURRENT SCIENCE

Fremont Davis

President and Scientists

See Page 274

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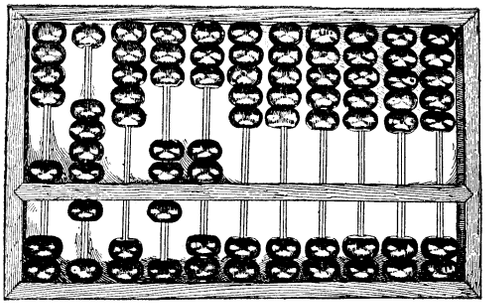

The best introduction for Western readers to one of the oldest, most fascinating computing devices known . . .

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The secret is, of course, that the abacus is not as primitive as it seems. It is astonishingly sophisticated, a projectional device that supplements the working of the operator's mind. It has become a favorite recreational pastime and a popular practical skill among puzzle enthusiasts, mathematicians, engineers, and physicists. Now, for the first time, you have the opportunity to really learn how to use this fascinating computer.

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We searched for years for a treatment of the abacus that would be clear to Western readers, and this is it! It uses a straight-forward verbal and pictorial approach which concentrates on general principles instead of the complex Oriental method that involves a seemingly endless number of special cases and situations and which could take years to learn before it could be applied in practice. Thus, Yoshino's text can be followed easily without a teacher and absorbed quickly, even if your mathematical training is very limited. While it might take you several years to develop the fantastic speed of Oriental masters, who have spent their lives at the abacus, the basic operations are actually simple. And this book is so direct, so clearly and profusely illustrated, that in just a few short weeks you should be able to work with the abacus as readily and as accurately as you could with expensive business machinery.

The author covers the fundamental arithmetical operations (addition, subtraction, multiplication from both right and left, several techniques of division) very thoroughly. In each case, he parallels his expositions with diagrams (over 300 in all!) and with practice examples with which you can improve your skill. The book was written for the Japanese abacus (or "soroban"), but Martin Gardner's introduction, prepared specially for this Dover edition, shows you how exactly the same principles can be used with equal ease on any other abacus.

In many ways, the abacus is still the most useful small computational device, and its applications are almost endless. While it cannot do functions, logarithms, or roots like a slide rule, it is nonetheless precise and quick. Provided you do not need a permanent record tape, for instance, it is superior to the adding machine in that it can divide far more easily and can be acquired at a far lower cost. It can make household accounts and income tax returns much less of a problem, and physicists, chemists, and students who need quantitative answers to numerical problems will welcome its speed and accuracy. Not least is its value as an effective visual device for introducing children to the basic ways of arithmetic.

Abacuses are readily (and inexpensively) obtainable from specialty Japanese import stores in major cities of the U. S. If you prefer, you can make your own from a piece of wood, several wire clothes hangers, and a few beads. Or, you can use the pebble or dust abacus such as is used in many parts of the world where abacuses are not manufactured.

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