

# The Second Edition...

Gear Technology's bimonthly aberration — more gear trivia, humor, weirdness and oddments for the edification and amusement of our readers — and absolutely nothing about O. J. Contributions are welcome.

## Gearing for Munchkins

Gene Kasten, president of Repair Parts, Inc., of Rockford, IL, is the proud owner of a miniature Barber-Colman hobber, the only one of its kind in the world. The machine, a replica of the old B-C "A" machine, was built between 1933 and 1941 by W. W. Dickover, who devoted 2,640 hours of his spare time to the project.

The machine, made from cast aluminum, stainless steel and bronze, was built to scale from the original drawings of the full-sized machine. Driven by a 1/32 hp motor, the miniature "A"



weighs 19 lbs. It's 13 1/2" long, 6" wide and 11 1/2" high. The maximum travel of the hob slide is 2", and the work size

is 2 1/4" diameter x 2" face x 40 DP or finer. The machine will cut spur and helical gears and spline shafts.

The 8-year project was something of a hobbyist's tour de force. Dickover, a toolmaker and later a salesman for Barber-Colman, reduced the drawings to 1/6th size himself and made every one of the 642 parts, with the

exception of the castings and the gears, in his basement workshop. He also made his own cutting tools to produce parts for the machine.

The hobber actually works. Dickover cut a 48-pitch, 48-tooth gear with adjacent tooth spacing that checked to within .0003" and non-adjacent spacing to within .0004".

The machine is on display at Repair Parts, Inc. Call 815-968-4499 for more information.

## Mark This Place

U.S. Patent No. 5,311,835 was issued to Horace Knowles for his PlaceMark, which the inventor says is state-of-the-art in bookmarks. For those of us who have trouble remembering where we

left the book, much less where on the page we stopped reading, the PlaceMark has "Odd" printed on one side and "Even" on the other. The top third of each side is a scale marked "top, 1/4, 1/2, 3/4." The bookmark is inserted so that it indicates to the memory-impaired reader whether to start reading on the odd or even numbered page and how far down the page to begin. Knowles predicts that the PlaceMark, "has the potential of changing forever the way many millions of readers mark their place in a book." Maybe.

## Solutions

If you're still struggling with the answer to our "Puzzling Scales," relax. Try the following algebraic solution. Let: b=weight of a bottle; g=weight of a glass; p=weight of a pitcher; s=weight of a saucer. Each weight now can be represented by an equation. (1)  $b+g=p$ ; (2)  $b=g+s$ ; (3)  $2p=3s$ . We want to find  $b=?g$ . Transform equation (3) to  $(2/3)p=s$ . Replace  $(2/3)p$  for  $s$  in equation (2), and we get  $b=g+(2/3)p$ . Call this equation (4). Simplify this equation and solve for  $b$  in terms of  $g$ , giving  $b=5g$ . Therefore, 5 glasses balance 1 bottle. ☉

## Let There Be Lightbulb Jokes

If you thought these were as passé as Madonna, you're wrong. Some of the latest circulating on the Internet, according to *Wired* magazine, the hot chronicler of cybernews, include:

**Q: How many q/c testers does it take to change a lightbulb?**

**A:** We just noticed the room was dark; we don't actually fix the problem.

**Q: How many shipping department personnel does it take to change a lightbulb?**

**A:** We can change the lightbulb in seven to ten working days, but if you call before 2 p.m. and pay an extra \$15, we can get the bulb changed overnight.

Fizbin suspects the people in design have more fun than he does.

