

## **G-15** That Pesky Gear Shift By *Bob O., Bob V. and Paul Gerhardt*

EVEN WHEN NEW, shifting King Midgets into gear could be troublesome.

Here's why:

That lever under the seat moves a square block into a square receiver when shifting. In order to do so, the two squares must be almost perfectly aligned. That's tricky. Virtually impossible without clashing if the engine is idling fast enough to keep the input shaft spinning.

*Reverse*

Assuming a well-tuned, slow idling engine and an adept driver, a shift can be accomplished by holding the shift lever against the reversing blocks and giving a light tap on the accelerator. But you must get it right the first time, otherwise the "drive" block just keeps spinning and can only be shifted by jamming it into place, with a roaring clash of gears. Let's admit it—we've all done it a time or two before we learn to leave the car in either forward or reverse instead of neutral. That makes shifting much easier because the two blocks start out in alignment.

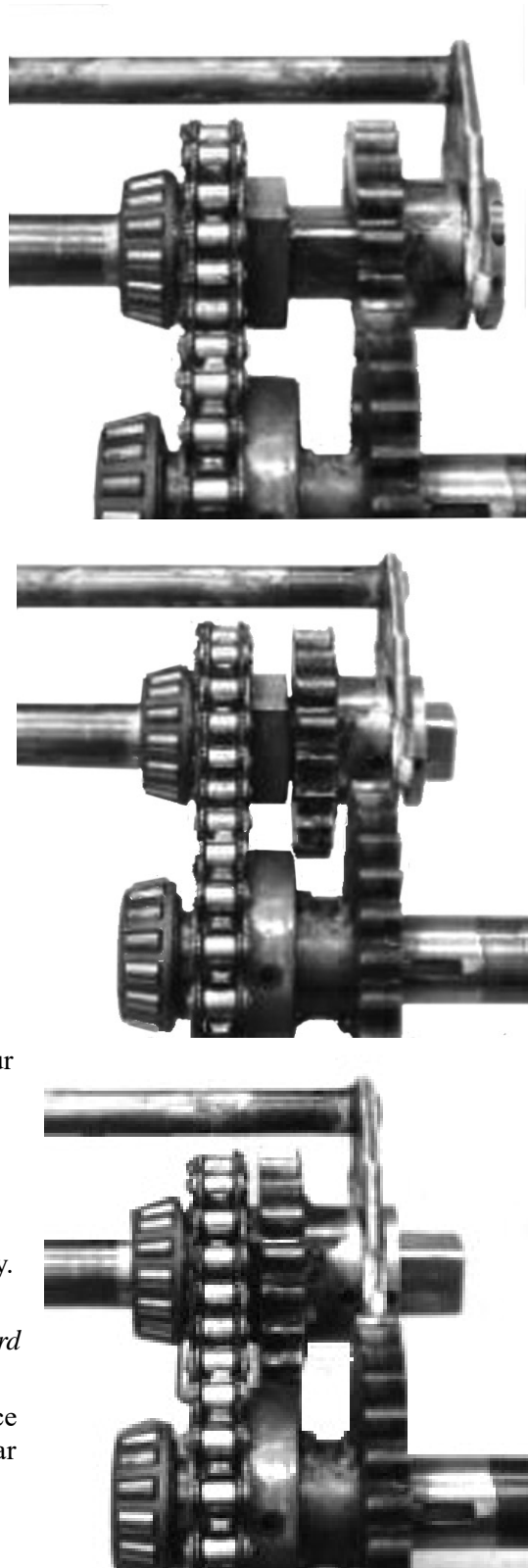
*Neutral—see the square block?*

Many King Midget drivers never really learn this trick and thus it is common to find examples where the edges of the blocks have been worn or chipped off. Worn edges make shifting a little easier, but your car wants to jump out of gear. Fixing it is difficult. See Shop Notes, G-6 and G-7 for about 10 pages of detail on the problem and how to fix it. Not easy.

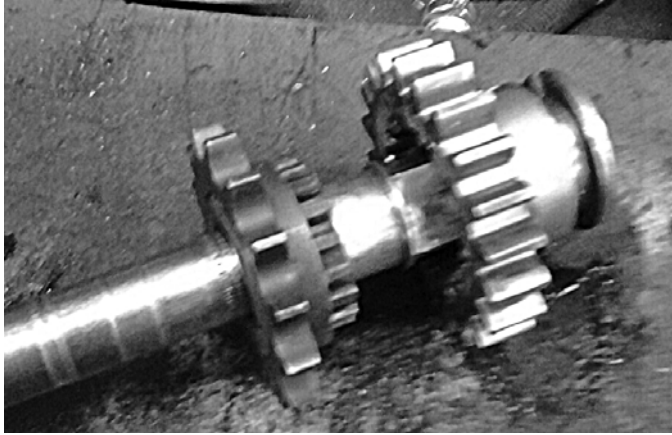
Paul Gerhardt figured there must be a better way. There are potentially *lots* of better ways given an elaborate machine shop, plus lots of time and money.

*Forward*

Paul's method, still a chore, is much easier. Replace the square blocks with the drive and driven third gear pair from a Crosley transmission.



## SHOP NOTES King Midget Maintenance and Restoration



That setup can be welded neatly into the available space, and all those teeth make shifting far easier and more positive.

This setup works the same as the original, except far more flexible and smooth.

If you want Paul to build you one, find a Crosley gearset. He's done four conversions, using up all he had.

Better yet, find a source of such gears that can be purchased and adapted to make our Kings shift smoother and keep them running! ▣

