

Tech Briefs

Magnetic Nipples Strengthen Solid Rim Beds

VICENZA, Italy—If looking at the solid rim bed on some Campagnolo or Fulcrum wheels leaves you wondering how they do it, look no further than U.S. patent 7,178,239. The patent covers the techniques and technology Campagnolo uses to get spoke nipples into those seemingly solid wheels. Previous Campagnolo patents used an access window in the rim sidewall by each spoke hole to place the nipple. This new patent uses only one access point, either a valve hole or dedicated opening, to feed nipples into the rim channel. The nipples are guided to each spoke hole by a magnet. By screwing in a little ball-end removable steel insert into the non-magnetic aluminum or brass nipple, it can be hand- or machine-guided by a magnet. The ball-end ensures the nipple is pulled from the hole in the right orientation. Why bother with such nonsense to keep a solid rim bed? Campagnolo claims the strength and tubeless benefits of rims made in this manner exceeds conventional rims.

Swisstop Pads Stop Carbon Rims on a Dime

SOUTH BURLINGTON, VT—When it comes to carbon fiber rims, Carbon Sports, Specialized, Reynolds and Zero Gravity turn to Swisstop for its Yellow King brake pad material. “Most riders report that using these pads they have as much confidence in their braking with carbon wheels as they do on aluminum rims,” said Steve Maret, Helvetia Sports owner and Swisstop importer. The company said its yellow compound is made up of 20 different ingredients, some of which are difficult to source. While the company does not recommend using its yellow compound on aluminum rims, the pad compound does work and saves the hassle of changing shoes. Swisstop



is the bicycle brake brand of Switzerland's Rex Articoli Tecnici SA, a company specializing in technical rubber and plastic products. Rex cut its teeth in the bike business 35 years ago fulfilling brake pad orders from Weinmann. Swisstop Yellow King 4 pads for Shimano and SRAM brakes sell for \$42; pads for Campagnolo and Zero Gravity sell for \$63. Yellow King pads for cyclocross V-Brake or smooth post start at \$42.

Spoiler Deflects Air from Ear, Reduces Noise

MORNINGSIDE, South Africa—It's easy enough to see if you are a candidate for either of Slipstreamz's earwear products. While cycling, place a finger in front of your ear and see if the wind noise dies down. If so, the company thinks you may be interested in its \$4.50 Spoiler. The Spoiler mounts to the front strap of any helmet and deflects the wind flowing over the ear. “Many of our customers appreciated the air flow noise-reducing properties of our original product, but wanted something even slimmer or weren't interested in listening to music while riding. The Spoiler gives cyclists the much-needed protection in a smaller, sleeker option,” said Lonnie Tieg, Slipstreamz's president and chief executive officer. Slipstreamz's first product, Slip, was a thin envelope that enclosed the ear, providing better personal stereo listening as well as a bit of warmth in cold weather. Slip is not available in this market, but J&B Importers distributes the Spoiler.

Full Suspension Trickling Over to Road Bikes

WATERLOO, WI—What differentiates one black carbon fiber road bike from another? That's a question that's growing in importance as the weight difference between suppliers' frames diminishes. Trek debuted a suspended frame for its Discovery riders a few years ago that provided about an inch of travel. Trek's suspended road bikes were designed to help riders negotiate the rough pavé of Paris-Roubaix. The company recently received a patent on a similar design, U.S. patent 7,168,726. So-called pivotless soft-tail designs are reasonably commonplace, so Trek focused on the technology of integrating the wishbone-mounted elastomer shock with a road brake-mounting bolt, which bisects the shock and keeps the entire suspension system light. Specialized may not be developing road suspension, but it continues to expand its use of elastomer dampers in road forks and has received two U.S. patents this year on the technology.