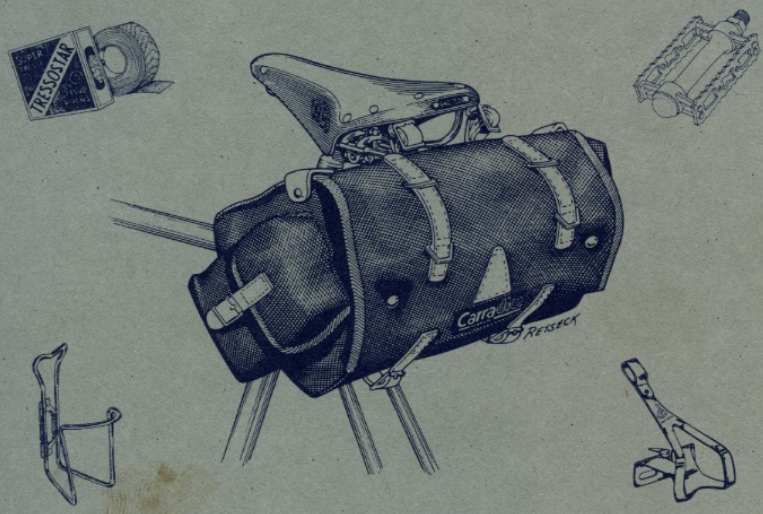
SUMMER 1996

RIVENDELL



BICYCLE WORKS

CATALOGUE & PRICE LIST

IF LILIES ARE LILY WHITE, IF THEY EXHAUST NOISE AND DISTANCE AND EVEN DUST, IF THEY DUSTY WILL DIRT A SURFACE THAT HAS NO EXTREME GRACE, IF THEY DO THIS AND IT IS NOT NECESSARY IT IS NOT AT ALL. NECESSARY IF THEY DO THIS THEY NEED A CATALOGUE.

—*Gertrude Stein*

•Rivendell Bicycle Works•

WE'RE A MAIL ORDER COMPANY for bike riders who prefer traditional, classical bicycles and accessories to today's ever-changing, high-tech fare. Most of what we offer you can't find at the big mail order places or your local bike shop. Years ago you could, but not anymore.

It's not us versus them, retro versus techno, old versus new. It's not niche marketing in the tactical sense, either. We just offer the same gear we wear, ride, use, and wash with every day, because anything else would be awkward. It's simple gear, because we like to be able to understand it; it's practical in the sense that it fulfills a fundamental cycling (not just psychological) need; and it's proven—much of what we offer was born before we were, and even new items borrow heavily from materials and designs that have been around for years. We aren't innovative, but we don't sell experiments, either.

We carry lugged steel frames, leather saddles, wool clothing, waxed cotton saddle bags & panniers, standard pedals-clips-and-straps; assorted curved handlebars; chains and freewheels, cold-forged cranks, sidepull and cantilever brakes, frictionable thumb, downtube, and handlebar-end shifters, cotton handlebar tape, books, tools, beeswax, boomerangs, certain soaps, the world's best refrigerator magnets, and Edward Lear's 1846 classic, Book of Nonsense. This wonderful book is the only nonsense we sell.

Some of the components we offer are endangered and collectable, but they're no less ridable for it, and their scarcity isn't the attraction. Our approach is riding-oriented, not collecting, nostalgia, or display-casing.

We have all you need to build and equip your bike, too, but we don't sell gratuitous high tech, and our selection is narrow. For instance, we sell one kind of flashing blinker light; one brand of bar tape; one brand of pedals; one brand of saddle. Every item has earned its spot. This non-shotgun approach could kill a retail store dependent on local business, but we're doing okay with it. We're not yet profitable, but we're hanging in there (thank you!).

We can't send out catalogues as often as L. L. Bean or Victoria's Secret, so the prices here are good through 1996. If you have questions about anything we offer, please call and we'll undo any confusion. Finally, everything we sell is guaranteed and returnable new or used, so you can buy sight unseen with confidence. Thanks for giving us a try. —*Grant, Spencer, Gary, Mary*

PHONE: (510) 933-7304 • FAX: (510) 933-7305

RIVENDELL BICYCLE WORKS

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Join Rivendell? Please!

Now more than ever, the direction bicycles are headed is dictated by large companies using the glamour of high technology to attract new cyclists to the sport, and the lure of constant upgrades to sell new gear every couple of years to existing cyclists. (That's what happens to mature industries trying to grow in a flat market.) It's impractical for those companies to address the simpler needs of other cyclists, so that's what we try to do, and we are able to do that only with your membership dues and patronage.

A one-year membership costs just $15. For that you get five issues of the *Rivendell Reader*, our 24 to 40 page newsletter—a low-tech, non-competitive, sometimes technical and often twisted look at bicycles and riding. It doesn't cover travel, stretching, cross-training, diet, recipes, or racing—not that there's anything wrong with those things, but you can read about them in any cycling publication. The *Reader*, like our bike parts, is different.

For variety we throw some non-cycling articles, too. Past topics have included boomerangs, wooden tennis rackets, the making of obsidian knives, and why Wendell Berry won't buy a computer. But it's still mostly bikes, by far.

Besides the *Reader*, as a Rivendell member you'll also get the best prices on everything we offer, and bimonthly offers on items we pick up along the way in quantities too small to offer to everyone and too late to make it into this catalogue. Some of these are the last of their breed, real functional treasures.

Please join for $15, and we'll give more than that back to you in good, alternative reading and good, alternative bike parts. You can join by phone, fax, or mail; by check, Visa, or MasterCard. If $15 is too much for your budget, send what you can and we'll sign you up. *Thanks.*

Rivendell Road Frame

Most of the changes in road frame design during the past 20 years have been subtle, but the cumulative effect of shorter chainstays, steeper angles, loss of eyelets, and vertical dropouts has made the modern road bike less versatile than a 1970's model. Still, it's no more raceworthy.

The easily overlooked and rarely discussed details make the difference—the height of the brake bridge, the length of the fork and the distance from the brake bolt hole to the underside of the crown, and the internal dimension of the crown and the chainstays just behind the bottom bracket. Magazine road tests rarely mention these details, but they're important because they determine the tires the frame will accept; and tires, more than any other single component, determine what kind of roads or trails the bike is suited for and how it feels on a less than perfectly smooth surface.

Dropout eyelets are another thing. It used to be that even racing frames had them, but now, to save a fraction of an ounce and to present a *clean* frame, virtually all production makers have eliminated eyelets on their sporty bikes, so there's no convenient way to mount racks or mudguards. When you're shopping for a road bike, you don't imagine yourself carrying loads or riding in the rain, but eyelets weigh so little and offer so much, it seems a shame to eliminate them altogether. Ten years from now your riding habits may change, you might be living in Seattle, you might want to shop by bike, or you

This is our head badge, which is properly called a "name plate," but old habits die hard. It is cloisonne, multi-colored, and weighs 13g.

might want to tour ... and you'll be wanting eyelets.

It's not that we want to turn nice zippy road bikes into workhorses. No! You can have the features that increase versatility without giving up any of the qualities that make a good road bike feel so fine. The Rivendell frame is as raceworthy as any frame, but it is so much more versatile than a typical modern race frame, it's like having another frame entirely.

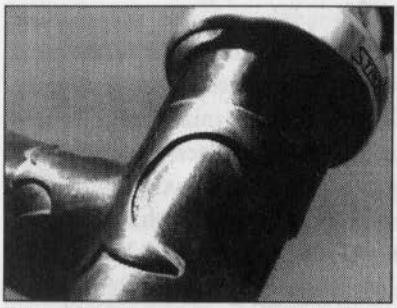
The frames are made from Reynolds 753 steel tubing drawn to our own specifications, and the tubes are heavier than the stock Reynolds 753 tubes and other modern superlight steel tubes. But the extra material is well-placed: The upper down tube butt is 100mm, because the most vulnerable part of any tube on a bike is the underside of the upper portion of the down tube, and the long butt protects this vulnerable area. A tube won't buckle there without you running into something, but accidents happen, and the long butt makes sense for a frame built to ride hard in all conditions for a long time. Also, the shifter boss is brazed on within the butted area, and the base corners are rounded, which fairly eliminates the chance of a fatigue crack at a corner.

The Rivendell frame has a shallow seat tube angle to keep your weight back, which in turn reduces weight on your hands and strain on your shoulders. Since the shallow angle shifts your weight to the rear, we've compensated with a slightly shorter-than-normal front-center (the distance between the crank axle and the front hub axle), and used longer chainstays to shift the rear wheel slightly farther back. The slightly shorter front-center with a longer rear-center is the opposite of most modern frames, which tend to be short in the rear, long in front. Those bikes feel funny to me (Grant), but that may be the curse of having paid too much attention on too many test rides over the years. In any case, the bikes I like tend to be shorter up front and longer in back. (Ritchey road frames are that way; and Pino Moronni frames are this way in extreme.) Following are some other features of our road frame:

EXTENDED HEAD TUBE AND FORK STEERER

The standard Rivendell frame has a head tube 15mm taller than the top of the lug, and the steering tube is 10mm extra longer (the difference is made up with a machined spacer). These features allow you to get the bars higher than you can with a standard frame (10mm steerer+ 15mm head tube = 25mm higher). So if you ordinarily ride a 56 road frame, you can get the bars as high as they'd be on a 58.5 frame.

If you know you won't want the



If you look closely you will see the brazed-on head tube extension. It allows you to raise the bars another 15mm, and comes standard.

high bar position, if you understand its benefits but are set in your ways, we can build the frame without the extension (it's easier to just leave it off, and you'll save $10). But the stock arrangement really is more comfortable. The taller head tube also has the effect of shortening the top tube by a few millimeters, without shortening the wheelbase or front-center.

Nine times in ten when a rider is between two sizes, we recommend the larger, for its higher bar position. A higher bar opens you up at the waist, so it improves breathing. It tends to lift an oversized belly out of the way of your thighs. It brings the drops into a more useful zone. It takes weight off your hands and shoulders; and it reduces strain on your back. Most riders have their bars too low, because their bikes are too small. Higher bars *good!* (Read more about this on p. 12.)

LOW BOTTOM BRACKET

Conventional wisdom says a lower BB makes a bike handle better and easier to control at high speed, and it really does seem to work that way. In BB heights, 10.25 inches is considered low, 10.75 is considered high. By the way, b*ottom bracket height* is a complete-bike term, since it depends on the wheels. When speaking of frames, the issue should be *bottom bracket drop*, sometimes called *hanger drop*, or among good friends, simply *drop*. It's the distance the center of the bottom bracket shell falls below the centerline of the front and rear dropouts, and is the first dimension I specify when I design a frame. To determine the bottom bracket height you measure the height of the hub (the wheel radius), and subtract the drop. In the case of a road bike with skinny 700c tires, the wheel radius is about 13.25 inches. On a typical road frame with 2.5 inches of drop, this yields a bottom bracket height of 10.75 inches. If you put a far more useful 28c tire on this bike, the BB height jumps to 11 inches, and that's getting up into cyclocross territory.

The Rivendell road frame accepts a huge range of road tires, but we designed it with a 700x28 tire in mind, and gave it almost 3 inches of drop. With a Ritchey 700x28 road tire, which has a radius of 340mm, the bottom bracket height is 10.4 inches. With a skinny racing tire it'll

be down around 10.25 inches. That's low by most standards, but if you ride clipless pedals, the cornering clearance gained by cliplessness allows you to ride a lower bottom bracket. If you're still riding toe clips (as I do), then you probably don't race, and won't be bothered by slightly less cornering clearance, since you don't have to lean the bike hard and pedal through corners. And on descents, the lower bottom bracket and longer chainstays add a measure of steadiness that most riders can't even imagine until they experience it. That sounds awful in print—like just more hype—but the difference really is easy to notice.

LOWER STANDOVER HEIGHT

For any given seat tube size, a shallower seat tube angle and a lower bottom bracket make for a lower top tube, and Rivendells have both a lower bottom bracket and a shallower seat tube angle than most frames. If you're between sizes and your fear of a too-high top tube is keeping you from going to the larger size, it may not be a problem with a Rivendell.

HORIZONTAL DROPOUTS ...

... allow you to increase or decrease the effective chainstay length by about 10mm. Slide the wheel back for added tire and fender clearance, or push it forward to make the bike turn imperceptibly quicker. Or ride it in the middle.

There's nothing wrong with vertical dropouts, but the chainstays on most road bikes are so short that you can't slide the wheel forward to remove it, because it hits the back of the seat tube. A vertical dropout lets the wheel drop straight down without moving forward, so it clears the seat tube. A better solution is to lengthen the chainstays, but short chainstays impress a lot of people, so makers are reluctant to do that. On road frames and the All-Rounder we prefer horizontals, but not by a landslide, and if you want verticals, we'll do it for a small ($20) upcharge.

All dropouts are made by Tecnociclo of Italy, and forged out of a special carbon steel. Our dropout is the same model Tecnociclo makes for Campagnolo, but without the Campy logo. We settled on these only after having tested six candidates metallurgically to determine the best material for this application. Shimano makes good dropouts, too, but they're reluctant to make the model we like (SF-1), since there's little call for it.

CLEARANCE FOR 35C TIRES, OR 32C TIRES WITH FENDERS

Most modern road bikes are out of their element off the race course because they don't have clearance for tires larger than 700x28. Rivendell road frames fit tires up to 700x35, so you can ride them not only on any road, but most fire trails, too. There

are so many benefits to a little extra volume in a tire. You can safely ride lower pressures, adding comfort on rough roads and traction in turns and in the rain. A slightly softer tire is probably faster than a skinny hard one on rough surfaces, too, because the tire deforms when it hits a bump and rolls right on over it, whereas a hard skinny tire will bounce up. Another plus with higher volume tires is their broader range of ridable air pressures. Who out there hasn't flatted without a spare or repair kit, and had to ride as far as possible between pump-stops?

Even if you don't plan to ride 700x32/35 tires, the added clearance makes room for fenders, or gives the wheel some wobbling room if you happen to break a spoke, and that can save you a walk.

DROPOUT EYELETS! ...

... to mount a rack or fenders. If you want to mount both, use a longer bolt in front (putting them both on the same bolt), and either do the same on the rear, or use a Blackburn Custom eyelet, made expressly for the purpose of fitting racks or fenders on eyeletless dropouts. They cost $5, weigh 11g per pair, and we stock them. The chainstay bridge and brake bridge are tapped for fender bolts. The seat stays have internal rack bosses, already fitted with 4mm stainless mounting bolts, at 3g each.

NOTE ABOUT TOE CLIP OVERLAP...

On smaller Rivendell road frames, when your foot is at 3:00 and the wheel is turned enough, the tire will indeed touch your toe clip or shoe. Dangerous? It would be if you turned your bike by turning the front wheel, but you turn by leaning. If you turn the wheel that much when you're going faster than about 4 mph, you'll crash way before the toe hits. Adding a front fender decreases this clearance further (as will a bigger foot or tire), but it still isn't a problem at riding speeds. Occasionally having toe clip overlap is noticeable when starting off, or doing a track stand at a stop light, but that's a small price to pay for a better ride.

SMALL BIKES & WHEEL SIZES

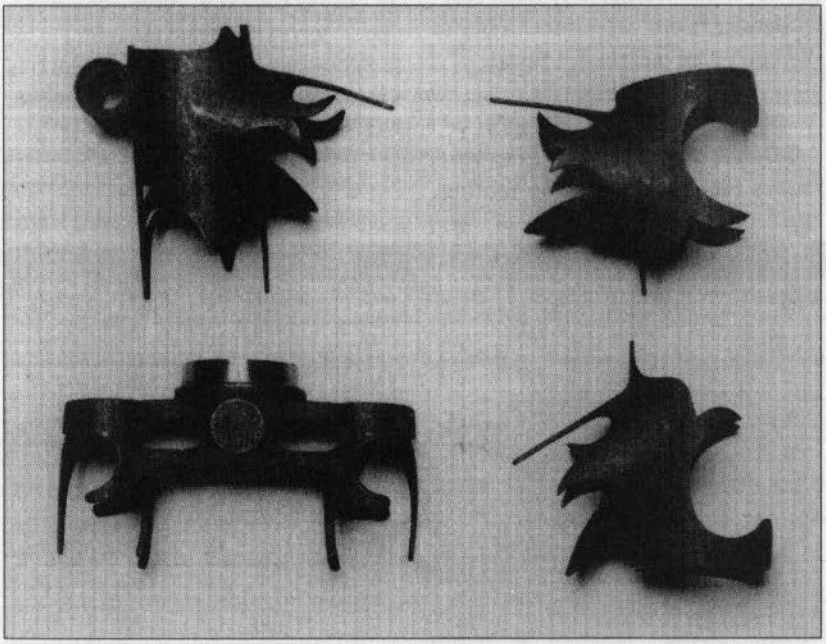
The smallest frame we offer with a 700c wheel is a 52. Smaller than that, and you end up designing the bike around the front wheel (so it doesn't hit the downtube). Going to a smaller front wheel allows the frame tubes to fall into place naturally, and the bikes fit and ride great. Our 26-inch wheel road frames have vertical dropouts, for technical reasons that take way too many words to explain here, and you sort of have to experience to fully comprehend. If you're curious, ask.

We offer both men's and women's 50cm road frames, built for 26-inch mountain bike diameter rims. Most

road bikes with 26-inch wheels are designed for a "road 26-inch," as opposed to a "mountain 26-inch" wheel, so it may seem odd that ours is designed for the latter. Actually, there's very little size difference between the road- and mountain-26 inch rims; we prefer the mountain size because you can get a wider range of tire sizes to fit it.

SHORT TOP TUBE OPTION

As an option, we offer most of our road bikes (All-Rounders, too) with a shorter top tube. It's more common for women to need this than for men to, but in any case, please don't jump to the conclusion that you need the shorter top tube without speaking with us. How the top tube dimension affects reach to the handlebars is widely misunderstood, and it takes a thousand words and several illustrations to explain it properly. We'll save that for a *Reader* story, or we'll be happy to explain it to you on the phone.



Richard Sachs designed the lugs for us. The points are well out of the stress areas, the tubes are well supported, and despite the fanciness, they're quick to braze. The crown weighs just 100g, has rounded windows and properly shaped front and rear points to eliminate stress, and is thoroughly tested. The top has a waist and epaulets.

OR WITH S AND S COUPLING

For an extra $400, we can build your frame with S and S couplings—machined stainless steel screw-apart devices that get brazed into the top tube in front of the seat lug, and on the lower part of the down tube above the bottom bracket. This adds about a pound, but it's a pound well-spent if you want the convenience of a take-apart bike and the ride of a good one. The S and S couplings are machined from 17-4 stainless steel, and although it would be a stretch to say they actually add to the beauty of the Rivendell frame, they don't really detract from it, either. They're there, darn it, but they're pretty.

CUSTOM FRAMES...

... start at $1270. All of our road frames have external cable routing, are designed for clamp-on front derailleurs, the forks have curved blades, and a low-key appearance. If you like our style and methods, but just need something a little different to fit your body, let's talk.

WARRANTY

THIS APPLIES TO ALL OUR FRAMES OF COURSE: IF YOUR FRAME BREAKS DUE TO A BAD TUBE SPEC, DESIGN, OR BUILDING, WE'LL REPLACE IT NO CHARGE. IF IT FAILS IN A WRECK OR DUE TO FATIGUE, WE'LL REPAIR OR REPLACE THE BIKE, OUR OPTION, AT A REASONABLE COST. SINCE SO MANY RETURNS (HISTORICALLY) ARE ILL-FOUNDED, WE CAN'T BE AS POLITICALLY GENEROUS AS LARGER MAKERS; BUT WE MAKE GOOD FRAMES, AND WILL TREAT YOU FAIRLY.

—Grant

SIZE C-T	ST ANGLE	HT ANGLE	FORK RAKE	TOP TUBE*	CHAIN STAY	BB DROP	REAR SPREAD**	TT-ST Ø	DT Ø
50 women's	74	72.5	4.0	50.5	40.5	4.5	129	28.6	28.6
50 men's	74	73	4.0	52.5	40.5	4.5	129	28.6	28.6
52	73.5	73/72.5	4.5/4.7	53.5/53	42	7.5	129	28.6	28.6
54	73	73/72.5	4.5/4.7	55/54	42	7.5	129	28.6	28.6
56	72.5	73.5/73	4.25/4.5	57/56	42	7.5	129	28.6	28.6
57.5	72.5	73.5/73	4.25/4.5	58/56.5	42.5	7.5	129	28.6	28.6
59.5	72.5	73.5	4.25	59/57.5	43	7.5	129	28.6	28.6
62	72	73.5	4.25	60.5/59.5	43	7.5	129	28.6	31.8
65	72	73.5	4.25	62.5	44	7.5	129	28.6	31.8

Notes: The 61 & 65cm use the same lugs as the All-rounder, a 31.8 downtube, and have slightly larger chainstays. * Second figure given is "short top tube model". **Rear spacing can be whatever you like, but our standard is 129, which can be squeezed or spread slightly to fit various hubs. Dimensions subject to change. Want an oversized downtube? We can do it for a small upcharge ($40 to $50). Ask for details.

PHONE: (510) 933-7304 • FAX: (510) 933-7305

Rivendell All-Rounder

This is our most versatile frame—a jack of all trades, master of most of them. For touring, commuting, or most trail and fire-road riding, it is perfect. When you build it up with either Moustache or drop handlebars and bar-end shifters, it is clearly neither a conventional road nor mountain bike. Its most recent inspiration was the Bridgestone XO-1, made in both 1992 and 1993. But the XO-1 itself was modeled after the French 650B-wheeled touring and the British "rough stuff" bikes. These practical breeds go back at least 50 years, and have been unsullied by the same marketing forces that, in the mainstream market, have made extremism the norm.

It's pretty much a light road frame dimensioned to fit the widely available 26-inch mountain bike wheels, and has enough strength to handle anything short of the most abusive off-road riding.

The combination of road geometry and 26-inch mountain bike-sized wheels lets a lot of wonderful things happen. You get all the strength and weight advantages of the smaller wheel—while increasing your tire choices—for the best fit and ride.

And 26-inch wheels are inherently much stronger and lighter than 700c wheel, and offer a wider choice of tires, from 26x1-inch to 26x 2.35-inches, with room left over for mudguards (with tires to 26x1.9").

Although we don't call the All-Rounder a mountain bike, a rider with good skills and only fair judgment can ride it all over mountainous terrain. (The World 24-hour Off Road Record is held on the Bridgestone XO-1.) If you don't currently have a standard mountain bike, you may find no need or desire to own one after riding an All-

John Sotherland checks alignment on a frame he's recently brazed, and from here, it looks perfect! John, 40, built Schwinn Paramounts before joining Waterford in 1993.

Rounder. And if you do have a standard mountain bike, you may still prefer to ride your A/R anywhere you go off-road.

The All-Rounder frame seems made for whatever parts you put on it, and everybody seems to have a special plan for it. With swept-back bars, fenders and racks, it's a smart commuter; with Moustache H'bars and midsize knobbies, it's uncatchable on fire roads; with drops and Ritchey 1.1 Crossbites, it's the fastest commute bike in town. For some people it's their mountain bike; for others it's their road bike; some buy it for loaded, long-haul touring far from the nearest repair station; some get it for city commuting. No matter how many bikes you own, this is the one you'll ride most often, because it's so fun to ride and so good at everything.

Like our other models, the head tube on the All-Rounder is 15mm longer than normal, so you can raise the bars that much higher. And it has a 15mm longer steer tube, too—so if you're between a 55.5 and a 58, you can probably go with the smaller size without suffering from having bars that are too low.

We often have people send in a frame deposit, undecided on either a road or an All-Rounder. That's natural, since our Road is so versatile, and our All-Rounder handles so much like a nice road bike. The best way to decide between a Road or All-Rounder is to consider brakes and tire size: The road frame is designed for sidepull brakes and accepts tires that are fat by road bike standards (up to 700x35, or 700x32 with fenders); the All-Rounder is for cantilevers, and fits fat mountain bike tires, as well (up to 26x2.35 inches, or 1.9 inches with fenders). They both ride like good road bikes on the road; but the All-Rounder with fat tires is more forgiving off road. This is the bike you'll ride everywhere.

Size C-T	ST Angle	HT Angle*	Fork Rake*	Top Tube*	Chain Stay	BB Drop	Rear Spread**	TT/ST Ø	DT Ø
42	74	72	4.25	49.5/48.5	42.5	4.5	133	28.6	31.8
48	73.5	72	4.25	52.5/50	42.5	4.5	133	28.6	31.8
52.5	72.5	73/72.5	3.8/4	55.5/53.5	42.5	4.5	133	28.6	31.8
54	73	73	3.8	56.5/55	42.5	4.5	133	28.6	31.8
55.5	72.5	73	3.8	57.5/55.5	42.5	4.5	133	28.6	31.8
58	72	73	3.8	58.5/57.5	43.5	4.5	133	28.6	31.8.5
61	72	73	3.8	60.5	43.5	4.5	133	28.6	31.8

Notes: Size your bike close to your road bike size. * Second figure is "short top tube model." **The rear spacing of 133 allows easy use of either road or mountain bike hubsets, but if you want something else, we'll build to suit. Dropouts are horizontal, with double eyelets.

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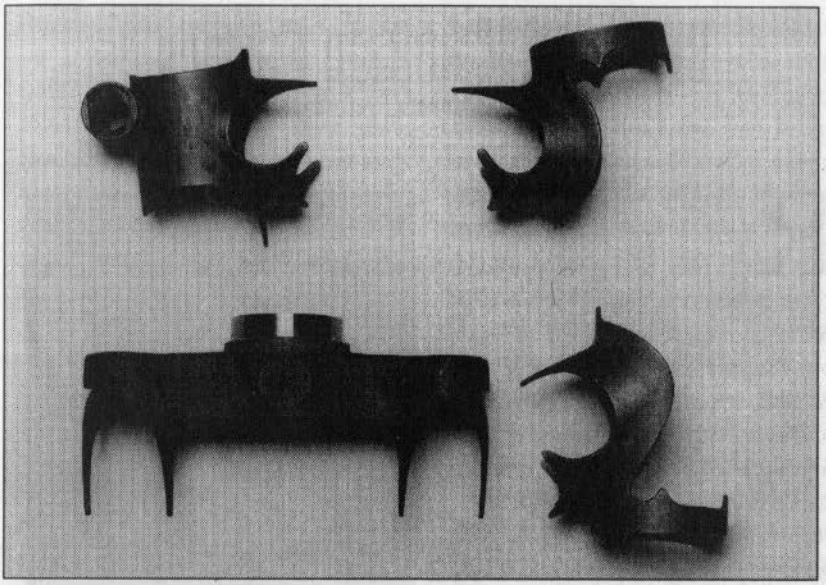


The lugs for the All-Rounder, the Mountain, and the 62cm and 65cm road frames are simpler than the road lugs, but just as pretty, and braze up quickly into stress-free joints. The crown is 56mm wide between the blades and fits tires up to 2.35-inches. Due to wider blade separation, we eliminated the windows in favor of a hollow box design, for added stiffness. With waists and epaulets.

Sizing Frames the Old Way

The trend for the past ten years has been to get frames too small. It may have come from BMX or mountain bikes; it may be a reverse macho thing; or it may have come from racers who didn't want to look like high-bar tourists. Whatever the origin, it's not good. Too small frames don't allow you to get the bars high enough, which leads to pains in the neck, arms, back, and hands.

Look at a photograph of any pre-1970 pro racer, and you'll see a fistful of seatpost, with the bars and saddle nearly level. Were those riders ill-fit or misinformed? No!

More likely, they were comfortable. If you want to be riding your bike for the next thirty years, size the bike the way the old guys did—or use a taller stem. Yes, there's more to fit than frame size, but it's easier to get set up right if you start with the right size.

Rivendell Mountain Frames

Rivendell mountain bike frames are designed with the idea that once you have a good position on a reasonable frame equipped with high volume, low-pressure knobby tires, it's time for skill, strength, and judgement to take over. Stiff-armed riders cannot be made comfortable by modern suspension; just less uncomfortable. But when you learn to use your own joints as shock absorbers, you'll ride in comfort and as fast as you like over all kinds of terrain.

With that in mind, our mountain frame has no linkages, bumpers, springs, oil, maintenance requirements or need of aftermarket upgrade kits. It is lugged and silver brazed and made of heat treated Reynolds 753 steel, the same as all our frames; and we designed it for riders who are comfortable on road bikes and want to maintain a familiar, road-like position on their mountain bikes.

Compared to our road and All-Rounder frames, the mountain frame is more trailworthy because it has stouter tubes to handle more abusive surfaces. When you ride over bumps, it is more forgiving than a road bike or All-Rounder because it has (1) a slacker-than-road head tube angle and more steering stability for better control over those surfaces; (2) a higher bottom bracket for more pedal and chainwheel clearance; (3) a longer front-center (distance between the bottom bracket and the front hub), so you're not as likely to pitch over when you hit a bump on a steep descent; and (4) clearance for tires as fat as 26 x 2.35 inches (as does the All-Rounder).

We file the lugs to sharpen the points and thin the edges. It's not obsessive filing—not that there's anything wrong with that— but it makes them a little prettier.

The Rivendell mountain frame doesn't even look like a mountain bike frame. It's pretty, it's simple,

there's almost nothing to it. If you see it without components, there's nothing to distinguish it from a road touring bike or our own All-Rounder; and built up, the the only mountain bike-like feature likely to give it away is the wheels.

One key feature is the top tube, which we've sloped up and sized so you can achieve a good trail-riding position while using a standard road bike stem with either drop bars or Moustache handlebars. By "good trail-riding position," we mean one with the handlebars high enough so that you don't have to lean over too far to reach them. Your position is more upright than it is on a road bike. That takes weight off your hands and arms, making it easy and natural to relax your upper body so it can absorb shocks. When you have the right size you'll find yourself climbing short steep hills down on the drops. Can you imagine? It sounds awkward, but feels natural and is an effective way to muscle up a short, steep climb. Try to get the top of the handlebars within an inch or two of the height of the top of the saddle—then make adjustments as you see fit. Our frame gives you a good starting point.

Less noticeable than the sloping top tube is the frame's shallower than normal seat tube angle. Most mountain bike frames have 73° to 74° seat tubes; ours are a degree or two shallower. It's not much, but it does allow you to achieve a nice rearward position without having to shove the saddle all the way back. You can shove the saddle all the way back on a road bike without any bad things happening, but it's a worse idea on a mountain bike, since you end up bouncing more on the saddle, and if the saddle is all the way back, the clamp is stressed more.

Rivendell mountain bike frames have steeper head tubes than commercial mountain bikes. On road bikes, steep head tubes are usually associated with smooth-road criterium bikes, so it may seem odd that we purposely designed a 72.5-degree head tube angle—a degree and a half steeper than the industry norm—on a frame that we have not designed for racers or a gonzo riding style. But different things are going on on a mountain bike. A mountain bike needs a longer front-center than a road bike, and the longer front-center slows steering. So does a fatter tire with its larger footprint. We steepen the head tube slightly to compensate for the slow-steering effect of the fat tire and the longer front-center.

Next, the drop is greater than it is on most mountain frames, by 3mm, which means that with any given tire, your Rivendell will have a bottom bracket height 3mm lower. Three millimeters on a mountain

bike isn't even worth talking about—we did it for philosophical reasons.

The fork is a big matter, though, and by comparing the Rivendell fork to a typical modern race fork you'll be able to see how, despite the cliche, racing does not always improve the breed. Typical mountain bike suspension forks are from 405mm to 420mm long. They have to be that long because they shorten as they compress. But when you mount a typical modern "low profile" cantilever brake on such a long fork, the straddle cable is so low that the center wire has to reach down well below the crown, which means you can't mount a fender—the part that usually sticks out ahead of the fork crown area will run smack into the center wire. Racers don't wear fenders, so they don't care, but if your mountain bike is to fulfill the mountain bike promise of versatility, it ought to accept fenders. In any case, since most mountain bikes don't accept real fenders, there has been a proliferation of inelegant aftermarket splashguard-style things that attached with Velcro or molded clips to the seatstays or downtube. They don't provide nearly the coverage of full fenders, and give the bicycles even more of a moto-cross look.

The Rivendell mountain bike accepts full, real fenders because the fork crown allows us to design shorter blades (376mm), and the shorter blades allow the fender, the center wire, the low-profile brake adjustment–to be where they have to be, and everything works. Is it "suspension compatible"? We'd like to say NO!, and we hope you don't do that to the frame, but the real answer has to be yes. For every 10mm or so of added fork length, the head tube angle will fall back roughly half a degree, so if you put on a RockShox Judy, you'll have a typical 71-degree head tube. The bottom bracket will rise as well, but we already start with something lower than usual, so that's okay. A bigger issue is whether or not you can find a suspension fork made for the Rivendell's one-inch steer tube. Another thing to consider is whether you'd be getting the best of both worlds—a beautiful lugged steel frame with a plush fork—or whether you'd be dressing a pretty and wholesome farm girl in a dog collar, a rubber suit, black lipstick, and a spiked mohawk. (We're making a point, not a statement.)

Another useful feature is rack eyelets. They weigh a few grams, aren't that ugly, and come in handy when you want to mount a rack. If you know you'll never use a rack, we can leave them off.

Most modern mountain bike forks have 1 1/8-inch steer tubes, but Rivendell steer tubes are the (now) old 1-inch size. The industry

as a whole has adopted the larger size because it is easy to sell the concept of a rugged off-road bicycle needing a bigger, sturdier headset. But there's more to the story.

Larger headsets came about both as a way to differentiate brands in the emerging commodities market, and as a way to prevent head tube ovalizing in soft, high-tensile steel head tubes. Despite what makes sense intuitively, headset durability is not as much of a problem on mountain bikes as it is on road bikes, because the fatter tires cushion the blows so much better! So we're back to "product differentiation," which has marketing value only; and ovalization-prevention, which is more elegantly handled by stronger steels and reinforced lugs on the head tube, both features on Rivendells.

The frame is just one of many things which affects how comfortable the ride is, and it still doesn't make as much difference as the wheels, your technique, and position on the bike. But all things being equal, a frame that is light and not overly rigid seems more comfortable to ride than a heavier, stiffer one. Maybe it's because light bikes are more maneuverable, so you avoid more bumps, and maybe it's because the lighter front end is easier to lift over bumps, to soften the blow.

The Rivendell mountain frame is designed for riders who prefer a simple, high quality frame for a riding style that emphasizes rider skill and judgement over technological solutions to minimize bumps and maximize speed. It feels light and maneuverable beneath you, and handles great over rocks, bumps, loose dirt, broken branches, whatever's around the corner. If you already know how to ride off road, and you want less technology between you and the ground, and you're okay with the occasional dismount when things get really spooky, the Rivendell frame is ideal.

Secret option: We also offer a non-drop bar model, with a lower head tube and more level top tube.

Size C-T	ST Angle	HT Angle	Fork Rake	Top Tube*	Chain Stay	BB Drop	Rear Spacing*	TT-ST O	DT O
16	73	72	3.8	55.5	42.5	4.3	135	28.6	31.8
17.5	72.5	72.5	3.8	57	42.5	4.3	135	28.6	31.8..
19	72.5	72.5	3.8	58.7	43	43	135	28.6	31.8..
20.5	72	72.5	3.8	59.7	43	43	135	28.6	31.8
22	72	72.5	3.8	61	43	4.3	135	28.6	31.8

Notes: Frame sizes are in inches. The 135 rear spacing fits modern mountain bike hubs; we will build to suit any hub you like, though. Dropouts are vertical with double eyelets. * Horizontally, from centerline of top tube to center of head tube. Since the top tube slopes up, the actual dimension is less than this. Were that not the case, it wouldn't be suitable for drop bars and standard stems. Dimensions subject to change without notice.

Metal, Reynolds 753 Tubing, Lugs, Crowns, other

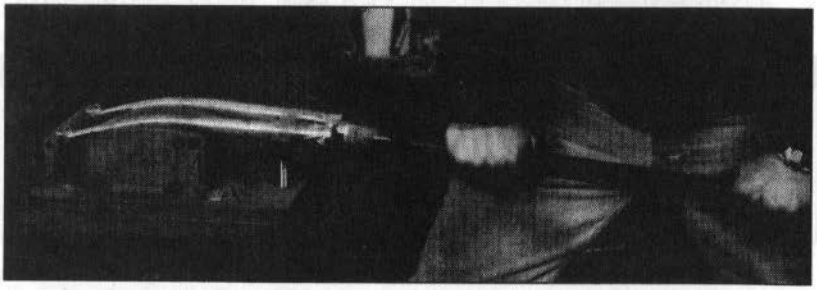
Most high quality steel bicycle tubing is chrome molybdenum (CrMo) . Reynolds 531 is manganese-molybdenum steel, another great materia differing only by small amounts of alloying elements. Rivendell frames are made of Reynolds 753, which is just heat-treated 531. The heat treatment dramatically increases its yield strength and tensile strength without hurting its elongation.

Yield strength, tensile strength, and elongation can be determined by pulling apart a two-inch solid bar of metal, as in a tug-o'-war.

YIELD STRENGTH is the amount of force required to stretch it to the point where it doesn't spring back to its original two-inch length. Paper clip steel has low yield strength; spring steel has high yield strength.

TENSILE STRENGTH is the force required to pull apart the solid bar of metal until it breaks in half. Cheese has low tensile strength; latex has high tensile strength.

ELONGATION is the amount the bar stretched, relative to its original length, at the time it broke in half (when its tensile strength was exceeded). If the stretched piece measures three inches, the elongation is 50 percent, because the one-inch difference is 50 percent of the original two-inches. Materials with low elongation are glass, ceramic, sunbaked plastic—brittle things.



Our crude but effective fully manual, non-hydraulic fork bender. Fork offset is checked every time, and every fork goes out perfect. This fork is for a road frame. The leverage is provided by a "cheater bar"—that's not a gigantic steering tube.

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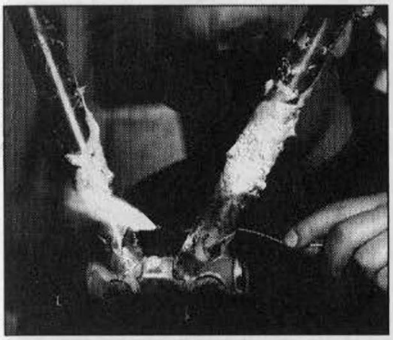


EJ, who once was scolded for not using enough flux, heats up a joint before feeding it silver. Joints are tacked in a jig, then free-brazed to eliminate built-in stresses.

Frames aren't solid and they aren't stressed that way exactly, but there are similarities. For instance, bending is like stretching. So knowing a material's characteristics is a good starting point, at least. In most materials, the higher the tensile strength, the lower the elongation (the more brittle it is), and that's not good, either. Plate glass, for example, has a tensile strength of 500,000 psi—five times that of CrMo. But it doesn't fail in tension, it fails because it isn't tough—it cracks easily, and cracks just zip right through it.

Another issue is fabricability. For a metal to be suitable for bicycle frames, you've got to be able to build a frame without changing the material's yield strength, tensile strength, and elongation too much. Once you've eliminated the unacceptable materials, the key is a good design, and maintaining the inherent properties of the materials throughout the building process. No less an authority than frame builder Richard Sachs has said, "In bikemaking, material is the least consequential thing on the planet." An exaggeration, but it makes a good point. That's why it's so foolish to buy a frame for its material.

That said, it is hard to imagine a more perfect material for bicycle frames than 753. Its flex characteristics are ideal, it resists cracking, and if a crack does develop in it, it will grow slowly and offer plenty of warning. These qualities allow a builder to design in a certain amount of flex, so the bike feels alive and essential. Admittedly, "alive" and "essential" are unquantifiable terms, but a certain amount of springiness feels good.

Lugs, Aesthetics, Sentimentality, Tradition, Strength, Opinion, Stress Distribution, Heat, and the Hobo

I like frames that look plain from a distance, or at least quiet, and reveal their fanciness only upon closer inspection. The tubes should be round and nondescript, and the joints, since they suffer the most, deserve the most artistic attention. They should look interesting, attractive, smart, maybe even unique.

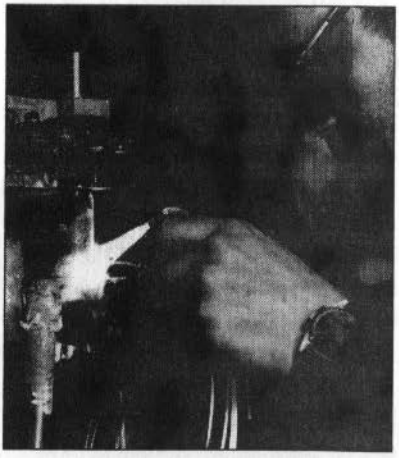
I also like the idea of a fine frame being identifiable by brand, even

without its paint, decals, and head badge, if it happens to wind up in a junkyard 100 years from now. In the case of Rivendells, I like to think that in 2095, a hobo art connoisseur could saunter by, see the frame, pick it up, be drawn to the joints, and say "(*Burp*) Ha!—an old Rivendell ... " It's not a quest for immortality; I just think there should be something *there*—something that can't be sandblasted off once and forever. That's one reason Rivendells have lugs.

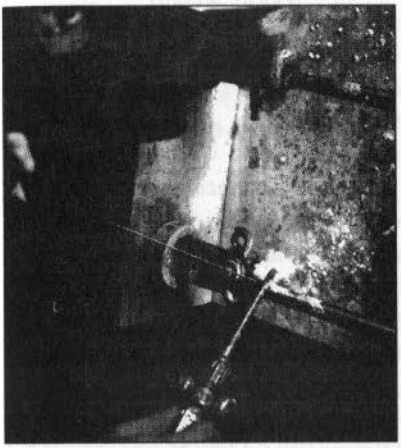
Some people don't get sentimental about frames, but I do. Others go bananas over faded neon/chrome flames-from-hell paint, and the Spartan, industrial look of TIG welds and gussets, but I don't. The best tig welders are true craftsmen, artists, spiritual leaders, whatever—but lugs are okay, too.

But Rivendell frames are designed with traditional values, and lugs are part of that. One can talk, and many do, about tradition as though it's an obsolete joke and a breeding ground for snobbery, but that misses so many points by a marathon. Brazed, lugged bicycle frames have a unique, individualistic beauty, and are drop-dead practical to boot. Since brazing does not melt the tube, the tube's inherent qualities—the things you chose that tube for in the first place—are less disturbed. Lugged frames are truly recyclable. If you wreck a tube on a lugged frame, a skilled builder can replace it and make the rebuilt frame between 95 and 110 percent as good as new, depending on how good the joint was in the first place. A TIG-welded frame in need of a tube replacement is a scrapped frame. The tube-'neath-the-TIG weld has already been irrepairably altered, and can't take the high heat twice.

Until the mid-'80s even cheap bikes were lugged, and those deep-socketed, straight-cut lugs inspired, if not a second glance, at least a certain confidence. But in the past 15 years, the push for flexibility in designs and lower costs has pushed even the most revered Italian and American names to TIG welding, and now lugs on new bicycle frames are as scarce as arrowheads in a



Paul brazes a road fork. The windows in the crown aren't just pretty—they make it easier and quicker to braze, and that's good.



Paul brazes a dropout to a chainstay. Road and All-Rounder chainstays are 0.8mm. Mountain chainstays are 1.0mm. All are 753.

Yosemite campground. In the past twelve years the number of lug makers has dropped like a rock. The latest casualties are Japan's Eisho and Nikko. Maybe you haven't heard of them, but if you've ridden a lugged Nishiki, Univega, Centurion, Schwinn, Raleigh, Bridgestone or Panasonic, you've ridden Eisho lugs.

Of all the popular frame building methods, silver brazing with lugs takes place at the lowest temperature: 1200°F, compared to 1600°F for fillet brazing or lugs with brass; and over 2200°F for TIG welding. There are some recent exceptions, but in most cases, and certainly with Reynolds 753, a lower flame is better for the tube.

Lugs play a structural role, too. When you think of them as external butting applied with relatively low heat, it's easier to see another function. Lug design is critical. A poorly designed lug takes too much time to heat, and concentrates stress in areas that cannot handle it. A well-designed lug supports the joint and distributes stress, and all the Rivendell lugs were designed with this in mind. Lugged frames are also easier to repair and replace tubes on.

Ain't Lugs Heavy?

A Rivendell lug weighs within a few grams of an ounce, a bargain when you consider all it does for the joint in terms of tubing compatibility, strength, and pure aesthetics. Besides, the lug allows low-temperature brazing, which in turn allows you to use thinner tube butts, because the lugs themselves serve as external butting. For instance, the tube ends (butts) on most TIG welded frame tubing are 1.0mm, and even the best TIG welder is reluctant to go below 0.8mm. A skilled silver brazer can easily handle 0.7mm or even 0.6mm butts.

Rivendell Lugs: History & Trivia

Rivendell lugs are designed to form strong, stress-free joints, to braze up quickly to protect the tube from excess heat, and to look as pretty as possible.

The origin of the road lugs is a story in itself. I used to work at

Bridgestone, and I wanted the lugs on our '95 RB-1 to have elements of certain older style French lugs (Nervex and Prugnat). So I supplied Richard Sachs with blank lugs, which he then carved and filed by hand into the prettiest shapes I've seen on any lugs. The lower head lug alone took him eight hours, and he didn't measure anything, or draw in lines to help guide the file, or use a template. He just sawed and filed away. Then Hank Folson(Henry James) made the final mechanical drawing from Richard's carvings. (Notes: These are not Henry James lugs. Richard Sachs offers modified Rivendell lugs on his own frames, and since he designed them, he is the only builder we offer them to. Richard is not our competition; he is a friend and inspiration.)

We collaborated with Waterford's Chris Fiorini and Marc Muller on the Mountain and All-Rounder lugs. I (Grant) tried their patience with changes, and should publicly thank them for putting up with me. The breakthrough came halfway through the process, when I suggested the curl on the side. Mark liked it, but Chris didn't, and Chris has excellent taste, so I was confused. Then Marc and Chris put their heads together and submitted a design we all liked. As usual, my "talent" is finding the right people.

Frame Weight, Wall Thickness, Butting, Tube Diameters, Dent Resistance, Frame Weight, and Frame Life

Rivendell frames are light, but not eye-poppingly so. Most of the tubes were drawn to my specifications, and the goal wasn't to compete with thin-walled aluminum, butted titanium, or the new paper thin supersteels. When you design with weight in mind, it's tempting to trim where you shouldn't. If you use good materials in the right places and proportions, the weight will be appropriate by definition. I wanted a light, beautiful, well-designed frame that's built to ride hard for many years without worrying about dents, fatigue, or buckled tubes, even if accidentally abused.

EJ prepares the seat stay/seat lug joint for brazing. A clean joint's a good start. His experience and expertise are beyond his years. He's built frames since 1986, and is still just 28 years old.

A 56cm Rivendell road frame weighs a bit over four pounds and satisfies all those requirements. The lightest aluminum and carbon fiber road frames weigh a bit under three. Good, safe parts required to make a frame into a ridable bike will add at least 17 lb., and a well-fed rider can bring the weight up to 220. Even if you weigh just 118 lb, the decrease in combined rider and bike weight between a featherweight frame and one of ours is less than one percent. The extra material in a Rivendell is well-placed: Longer downtube butts to protect the frame's most vulnerable spot; slightly thicker downtube bellies to resist twisting; an extra 0.1mm in the chainstays to protect against fatigue and chain gouges.

During the past century, steel frame tubing dimensions have been tested over millions of miles by hundreds of thousands of riders, and the tube dimensions that stand up over the years are somewhat thicker than the tube dimensions currently in fashion. True, there have been advances in metallurgy, but it's equally true that if the steel marketers didn't feel pressured to compete in weight with aluminum (at one third steel's density) and titanium (at half), there'd be a lot fewer broken steel frames out there. Our tube thicknesses generally fall between standard Reynolds 753 and Reynolds 531.

A tube's diameter to wall-thickness ratio bears watching. Over the years, traditional steel tubing hasn't exceeded 50:1 (28.6/0.6=47.66), but most of today's supersteels have higher yield strengths, and can exceed that by a certain amount. Oversized tubes with thin walls are stiffer and stronger, but a smaller diameter tube with a thicker wall resists dents better. High diameter-to-wall thickness ratios are particularly short-sighted in aluminum, yet they exist.

The most highly stressed portion of a bike is the downtube, and the most abuse a frame can suffer is to run head on into an immovable object. So against today's trend, our downtubes have substantial, full-length butts (100mm on the road frames, and 120mm on both the Mountain and All-Rounder frames. Downtubes are stressed in torsion (twisted) when you pedal hard, so we've kept the bellies thicker, so they twist less. (Waterford does this, too—and now is a good time to mention that we've relied heavily on Waterford's experience with all brands of frame materials. (Marc still thinks we're too conservative, and he may be right.) We're not saying you can pile into a wall at 20 mph and not expect any damage, but it's a safe bet that Rivendell frames will survive certain abuses that would destroy many other frames.

A Note About Building With Reynolds 753 Tubing

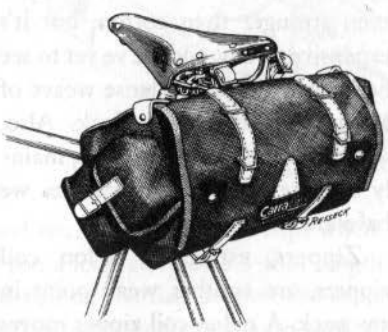
Most thin walled, heat-treated steels like 753 are more sensitive to heat than standard chrome-moly or Reynolds 531—even if the sales literature doesn't mention this. Since Reynolds doesn't want the reputation of this wonderful steel to suffer at the torch of a less than premium builder, it requires that frame builders pass a test in order to become certified. 753-hopefuls can buy from Reynolds a small kit consisting of a bottom bracket and four tubes, which they braze up and send to Reynolds for testing. But since 753 is so expensive, and must be brazed with silver (at $7 per ounce, compared to brass, at $6 per pound) most builders just opt for unrestricted tubing. Some of the best builders in the world are not 753 certified, but passing the certification test requires much better than average technique. Until recently the test was Pass/Fail. When Waterford submitted its samples (from seven builders, at the time), the scores were so consistently high that from that point on, Reynolds started giving Pass-A and Pass-B scores. It's doubtful anybody has more expertise with 753 than Waterford.

About Reynolds 853

This is Reynolds's new high-strength steel, and its tensile and yield strength scores beat even 753's. But it exists not due to any deficiency in 753. Reynolds wanted a super-steel that was TIG-weldable, and 853, since it thrives on heat, is it. Chasing higher metallurgical numbers is a neverending challenge, and beyond a certain point it's a mistake to think that stronger steels make a better frame. Almost all frame failures, at least in today's decent frames, can be traced to poor design, too much heat, or accidents. Once your material is good enough—and even high quality standard chrome-moly or Reynolds 531 are certainly that—it's design and execution that separate good frames from bad ones, and durable frames from weak ones.

Frames are dipped into a nasty, caustic bath for anti-rust treatment inside and out. Then they're primed, painted, decaled, clear-coated, and further treated with FrameSaver.

Baggage & Wallets



Fanny packs work well for small loads, but they hang on your gut. Musettes are good for small loads if there's a waist strap to stop the swinging. Courier bags are good for big loads and unpredictable shapes, but are overkill most of the time. Panniers require a rack. Saddlebags are English. I like them, but they are incompatible with most saddles. Handlebar bags catch the wind, but do offer on-the-move convenience and a good place for a map. Since no one bag is perfect for everyone, all the time, we carry an uncharacteristically large selection.

MATERIAL

Most soft luggage and packs are made from either 6 to 7oz nylon pack cloth or 11.5oz Cordura nylon. Nylon is cheap to buy, easy to sew, and has been sold on its tear strength and abrasion resistance, which is slightly dishonest or at least misleading. High tear strength and abrasion resistance are good, but when nylon packs self-destruct, they do so at the seams. Walk around a college campus or go down to the mall and you'll see a fraying daypack before you can say "Will Robinson."

Another problem with nylon is that it is damaged by exposure to sunlight, more so than any other fabric. It gets weak, brittle, turns to junk. Rock climbers see 4,000 lb test nylon webbing, after prolonged exposure, weakened to the point where it breaks with a strong pull by hands alone. At high altitude, continuous sun can ruin a lightweight nylon tent in sixty days.

Heavy, finely woven cotton is a better pack fabric. A raw edge of cotton frays a short distance, then stops as the myriad interlocking micro fibers grab on and hold—as anybody who's ever worn and washed cut-off blue jeans knows. And cotton withstands UV with little damage. Imagine Cordura or Ballistics cloth nylon cut-offs after a single washing—you'd have an illegal hula skirt. Cotton lacks nylon's abrasion resistance and tear

strength, but it is plenty strong in both regards nevertheless, and a well made cotton pack will outlast a nylon one three times over. Hemp is even stronger than cotton, but it's expensive to buy, and we've yet to see hemp with the fine, dense weave of a high quality cotton duck. Also, we're don't know how it frays, mainly because the sample swatches we have are still unwashed.

Zippers, especially nylon coil zippers, are another weak point in any pack. A nylon coil zipper moves smoothly around corners, but is wearing out from the first time you move it. Since coils are more difficult to replace than sliders, the zipper makers make sure the abrasion from the nylon zipper wears out the slider first. When that happens, the coils don't interlock enough to hold, and once it starts to happen, it gets worse fast. For light use, the amount most panniers are subject too, they're okay. And sliders can be replaced! Still, for hard continuous use, and when security is more important than one-click convenience, a metal buckle is best. —*Grant*

Carradice Cycle Bags, From England

Carradice bags are made in England with designs, fabrics, and methods that have changed little over 50 years. The fabric is heavy, waxed cotton duck, the straps are thick leather, and the buckles are zinc-plated steel. These are exceptional bags built to last twenty years when used every day.

3 MODELS OF SADDLEBAGS

Between 1929 and 1952 virtually every saddle in England wore one. They are the traditional "transverse" style, which means they stick out, catch the wind, sway a bit, and gently massage your legs on the backstroke. What's more, they require some method of attachment to the saddle, such as the loops built into some Brooks models; onto the upper coil springs of others; or an adapter. Saddlebags are my favorite way to carry medium sized loads, and with enough lashing straps and creativity, you can carry boxes so bulky that children in cars will be laughing at you as you ride home.

Carradice saddlebags are so unfashionable, people you don't even know will ask you about them. Even other cyclists!

—*Grant*

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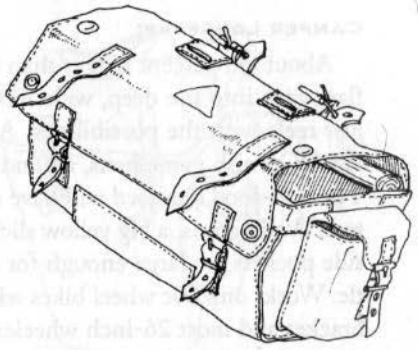
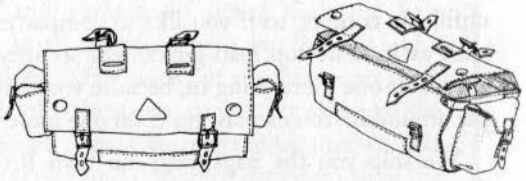
NELSON LONGFLAP:



Nelson Longflap: Carries up to 2 gallons of anything, tubes & tools, spare clothes, cantaloupes, a couple of hardbacks, hardtack, boomerangs, galoshes, just about anything you throw its way. In eight years I've never had a day load I couldn't somehow fit into or onto mine. Lash points on the flap let you tie on a small bedroll or extra clothing, making this a fine bag for summer overnighters, three-day hostel tours, or family day trips where you get to carry everything. Carry with you a long strap or a 3-foot length of rope and you can overfill the bag and still tie the flap down—I've done this many times with boxes and bags I otherwise could never have carried. A good bag for the rackless. Requires at least 13 inches between the top of the tire and the saddle loops; that generally means a saddle 76cm or more above the center of the bottom bracket, or a bike with 26-inch wheels. Call and ask if you're in doubt. One main pouch, two outside pockets. There's an orange reflective triangle on the flap. 14" x 11" x 8".1,098 cu. inches. 1lb 10.72oz.

MEMBER PRICE: $65
NON-MEMBER PRICE: $70

LOWSADDLE LONGFLAP:



A hobbit-sized version of the Nelson Longflap, designed for frames in which the saddle is closer to the rear tire (though it works fine for larger bikes, too). Carries spare shoes and clothing and tools, or enough bread and cold cuts to feed an army of orcs. One main pouch, two outside pockets, and handy D-rings on the outside of the flap (not shown). Tip: Always carry some kind or lashing straps or rope in your Longflaps. With sufficient length and a little creativity, you can carry boxes up to a 1' x 2' x 3'. Also doubles as a front bag for drop handlebars if you don't fill the side pockets, and keep the bar straps loose to make knuckle room. In a pinch. 14" x 9.5" x 7.5". Capacity: 854 cubic inches. 1lb 8oz.

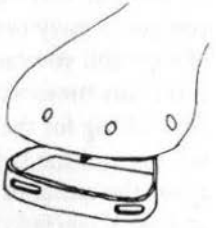
MEMBER PRICE: $65
NON-MEMBER PRICE: $70

CAMPER LONGFLAP:

About ten percent bigger than the Nelson, if you dare imagine. Open the flap, gaze into the deep, wide mouth of this precious jewel, and your mind just reels with the possibilities. A young pig? A Christmas goose, a dozen Rock Cornish game hens, a hundred bluegills plus two monstor artichokes? The non-food obsessed will have no problem fitting in two pair of size thirteen Wellingtons, a big yellow slicker, five hammers and a Filson jacket. The side pockets are large enough for standard sized water bottle or a Sigg bottle. Works on 700c wheel bikes with saddles at least 79cm above the bottom bracket and most 26-inch wheelers.

MEMBER PRICE: $70
NON-MEMBER PRICE: $75

CARRADICE SADDLEBAG ADAPTER:



This widget clamps onto the rails of your loopless saddle so you can carry a 'dice. It won't work on every saddle, but it does fine on Avocets, Turbots, and Unicornitors. Solid, simple, ugly, and it works well.

MEMBER PRICE: $20
NON-MEMBER PRICE: $25

SUPER C FRONT AND REAR PANNIERS

These are simple sacks unencumbered by compartments which create unfillable corners, so if you like to compartmentalize your load, do it with stuff sacks. The top load guarantees security and overstuffability; you can always fit one more thing in, because you don't have to close a freaking zipper around it! You can always cram one more thing into a sturdy top-loader.

We ship you the bags with our own Rivendell Remarkable Retention System, which for maximum security in the roughest conditions. Rigged up right, a paint shaker can't make the bags come off. Instructions included.

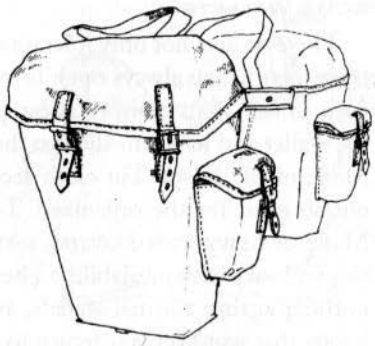
CARRADICE SUPER C FRONT (WORKS AS REAR, TOO)

11.5" tall x 10.5"wide x 5" deep, slightly tapered, and with an outside pocket big enough to hold, a first aid kit and two pair of sox. Each bag has one main pouch and a side pocket. Capacity:1,464 cubic inches. 2lb 14oz/pair.

MEMBER PRICE: $87/PAIR
NON-MEMBER PRICE: $93

CARRADICE SUPER C REAR

Each bag has one main pouch and an outside pocket. 14.25" tall x 12" w at the top, tapering to 8" wide at the bottom, and 7.5" deep. Don't get confused by the numbers—if you're after big bags, these are them, and since they're top loading, you can overstuff them to boot. Great heel clearance, even with huge feet. The straps are much longer than shown. Capacity: 2,563 cubic inches. 3lb 6oz per pair



MEMBER PRICE: $115/PAIR
NON-MEMBER PRICE: $123.50

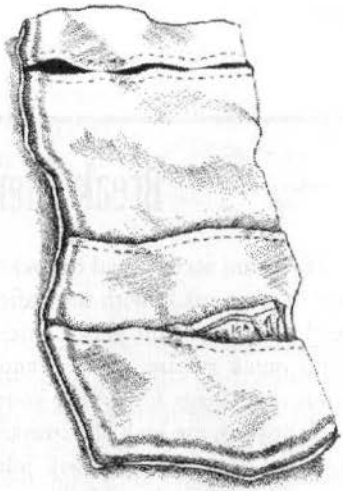
Break Them In Yourself!

If you are accustomed to packs and luggage made with scientific outdoor fabrics and plastic one-hand quick release buckles, and mesh outer bags for drying your dank hosiery, the look of a spanking new Carradice bag will jolt you like the handshake of a strong-as-an-ox, white-as-a-sheet Irish farmer. The fabric is starchy and black, loud to the scratch, and the thick, stiff leather is a spooky white. There's nothing stressed or acid-washed or pre-softened about Carradice bags—they actually need breaking in, and in fact are rather a pain to use the first week or so. Eventually the fabric fades and the leather softens to the point where the prong finds the hole without a fight, but this will take a few weeks of steady use—a short break-in period considering the many years of service that will follow. Carradice bags don't have the features required to fill up the charts and win magazine cyclebag shootouts, and they aren't for pansies; but for keeping your gear dry and secure, and standing up to the hardest use for the next couple of decades, nothing can match a Carradice.

Rivendell Bicycle Works

ACME Wallets

These wallets not only tolerate disorganization, they're made for it. Three wide mouths are always open to swallow receipts, cash, cards, photographs, even coins. Coins go in the deep pocket, and when you need them, just tilt the wallet and let them slide to the lip, which is stiff enough to catch them. Made of the Filson Tin cloth seconds. Great wallets for the disorganized, not so great for the organized. Two sizes, each with three compartments. Made of heavy waxed cotton, sort of a brownish-mustardy olive, although this will vary with availability. These don't work like normal wallets, we have nothing against normal wallets, and once you use these you'll develop bad habits that won't let you return to normal wallets; so be warned.



ACME Checkbook Wallet

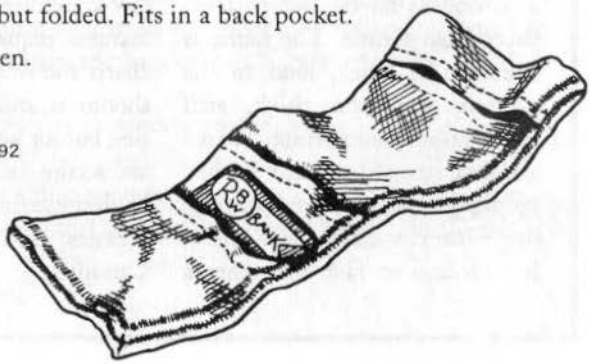
Roughly 6.5" x 11.5" open.

MEMBER PRICE: $16
NON-MEMBER PRICE: $17.50

ACME Normal Size Wallet

Also holds checks, but folded. Fits in a back pocket.
Roughly 3.75" x 9" open.

MEMBER PRICE: $13
NON-MEMBER PRICE: $14.92

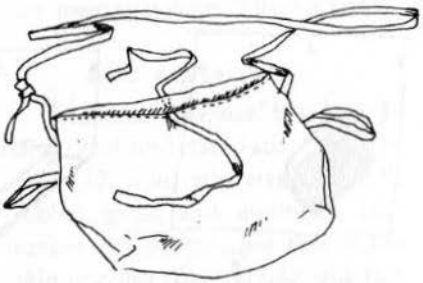


ACME MUSETTE

Two inside pockets carry your wallet, beeswax, postcards, pens, pencils, erasers, knives, and spare firecrackers. The main pouch is big enough for files, maps, newspapers, comic books, magazines, and snack foods. It has the same waist-strap as the simple musette. Made from medium-to-heavy waxed cotton in various earthy shades ranging from natural to black, depending on availability. There's a sewn loop on the flap and two on the sides. Originally the idea was to provide something there for a creative person to get creative with (closure-wise), and with each bag we provide instructions. Approximately 12" x 10" x 2.75". 250g.

MEMBER PRICE: $14
NON-MEMBER PRICE: $16

PLAIN MUSETTE , MADE OF ORGANIC COTTON



Non-organic cotton grows on just two percent of our agricultural land, yet soaks up 26 percent of all pesticides. What's more, the pesticides used on cotton are particularly nasty, because cotton is not a food crop, so the big bad corps can slather it with chemicals illegal to use on food, causing damage to the land, the cotton workers, and cattle who eat cotton seed. A pretty picture, you ask? *No.* This musette lets you ride with a T-shirt on a hot summer day, and still carry all you need, including a spare helmet up those hot, brutal climbs. Sling it over your shoulder like a bandolero, or tie it around your waist and wear it like a fanny pack. Light, stuffable, always handy and good to have along in case you find something bulky on the way home. Always keep one in a saddlebag or handlebar bag, just in case you need more room. Made of strong, light 10oz organic cotton duck, reinforced at the stress points, should last 10 years. Two loops on the side allow you to cut the spare strap (provided) in half, then tie them to the side loops,

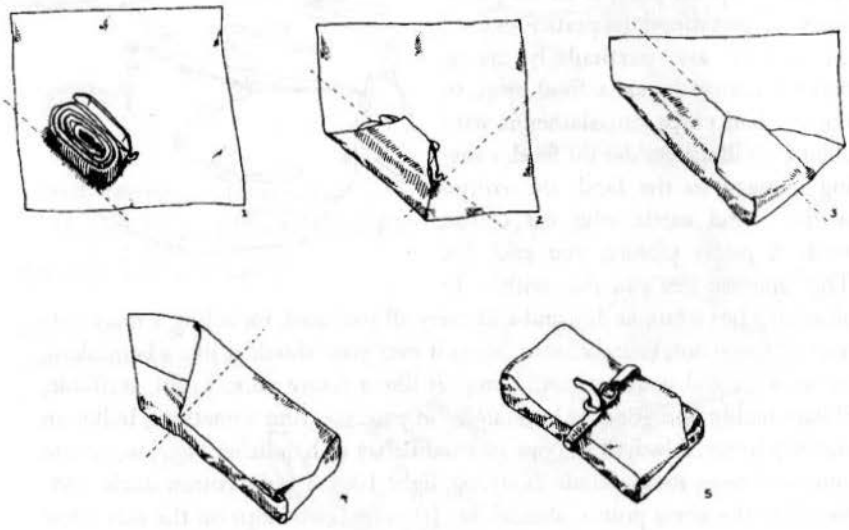
then in front of your stomach, for swing-free riding. Ties on the mouth are for oversized load retention. Tie one into a loop, overfill the bag, then run the free end over the load, through the loop, cinch it down and tie it off. 89g.

MEMBER PRICE: $9
NON-MEMBER PRICE: $12.03

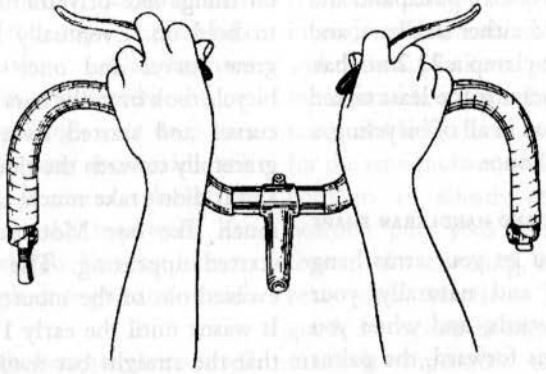
ACME TOOL & TUBE TOTE ☞ As seen in Bicycle Guide!

When all you need to carry is a spare tube and a couple tools, you can't beat this 16" x 16" cut of stout, finely woven unhemmed waxed cotton. Put your gear in one corner, roll it up until covered, then fold over the ends and finish rolling. (See the pictures.) Secure the wad with a stout rubber band or not, then strap it to your seat rails or seat stays with a toe strap; leather if you've got it (the buckle bites better). Always put one in a Carradice pocket, so when you get a flat you can just lay it out like a placemat, and your small stuff won't get lost in the roadside shuffle. Assorted, always stout fabric in some earthy tone, depending on availability.

MEMBER PRICE: $3
NON-MEMBER PRICE: $4



Handlebars



No bike part affects how you feel on the bike as much as the handlebars do. A change of bar can compensate for a stem that's too long, too short, too high, too low. It can change your weight distribution on the bike, affecting the way the bike handles and how relaxed you feel on it. A change of bars can make numb hands, numb genitals, or a sore bottom disappear or reappear.

The harder you pedal, the less weight you have on your hands, so the less padding you need and the less apt you are to get sore hands. A racer hunkering down in an all-out effort trying to bridge a gap barely even touches the bars (and saddle, for that matter). All the weight goes to the pedals, and the torso is so low, flat, and forward that it's most critical to get the bars out of the way. That's why racers keep their bars low. But if you don't ride that way you'll do better with higher bars. When you raise the bars, generally by raising the stem, you also make the steering quicker. That's a fact.

BAR SPECS

"Mountain bike size" bars have 1-inch (25.4mm) clamp areas and 7/8-inch (22.2mm) grip areas. They fit rubber grips, and mountain bike brakes and shifters, but they're too skinny to just tape and ride, and usually the bore is too small for handlebar-end shifters.

"Road bike size" bars vary more in size. Most are 26.0mm in the clamp area, but Cinelli bars are 26.4mm, and the newer 3ttt bars seem to vary between 25.5 and 25.8mm. Stems are designed to match clamp diameters.

The handle (as opposed to stem

clamp) portion of road bars is either 23.8 or 24mm in the grip—too fat for street and mountain fitments. Road brake lever clamps expand and contract to hold either size bars, and many will even clamp a 22.2mm bar. Road bar diameter is the least talked about dimension in all of bicycling, a well-deserved honor.

WRIST POSITION AND HANDLEBAR SHAPE

When you let your arms hang down relaxed and naturally, your palms face inwards; and when you bring your arms forward, the palms still face inwards, so it's no coincidence that a palms-inward position works well on a bike, too.

The very first handlebars on those wooden bikes of 130 or so years ago had straight bars, because the great minds of the day were concentrating on things like drivetrains, not how to hold on. Eventually handlebars grew curves and once the safety bicycle took over, the bars grew more curves and started sweeping back gracefully towards the rider. In time, and it didn't take much, shapes very much like our Moustache H'bar started appearing. The drop bar evolved out of the moustache-style. It wasn't until the early 1980s or so that the straight bar made a comeback. I think they came back because the early commercial mountain bikes were designed for descending Repack (a fire trail on

The Deepness and Mediumness of Drops

Ninety percent of the guy riders I know ride deep drops, and I did too, for 25 years. I recently tried medium drops (the Nitto Mod. 185), and I am at least temporarily hooked. I like medium drops, because I find myself spending more time on the drops on them. What's the use in riding deep drop bars if the drop is so deep that you have to lean too far over to reach them?

Medium drops have a couple other advantages, too. If, when you position the brake levers on the bars, you line up the bottom of the lever with the bottom of the bar, a medium drop bar allows you to reach the lever easily when you're on the drops and have your wrist straight when you're riding on the hoods. If you use the same positioning method on a deep drop bar, the hoods are too low on the bars, and you can't ride on the hoods as comfortably. And if you raise the levers to give you a straight wrist, then the lever is harder to reach. Deep drop bars aren't bad, and they may be best for you, but don't think medium drops are just for children. —*Grant*

Mt. Tamalpais), and they stuck around because mountain bikes were such a novelty that people's attentions were diverted from the handlebars. Still, some of the early mountain bike people—Charlie Cunningham Jacquie Phelan, and Scot Nicol (note the correct spelling), rode drop bars early on, and many good riders still prefer them. If you're comfortable with drops on the road,you'll like them off-road, too. You just have to get them high enough, and it ain't that hard.

Flat/straight bars are easier to sell in the mass market, because many new riders feel assured by the grip position (which is a lot like hanging onto the bar on a roller coaster). They're given creedence because pro racers use them for high-speed bumpy racing and descending, and a lot of people copy racers. Mountain bike brake levers and shifters and grips have been sized to fit this style bar, and that's helped catapult this mediocre shape into stardom.

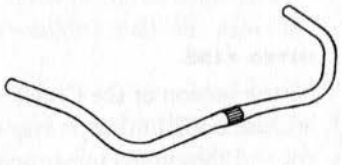
"Bar-ends" do not fully compensate for the drawbacks of a flat bar. It's true, they turn your wrists inwards, which reduces wrist strain and makes it easier to pull hard. But most mountain bikes have long top tubes and long stems to compensate for the straight bars, and adding bar-ends to an already stretched out position puts your weight too far forward for climbing, and you lose rear wheel traction. They're not good for speed-riding, since they make it impossible to reach the brakes without taking your hands off the bar. A shorter stem matched with a bar that provides both a closer, wrist-in position and additional reach by means of a forward bend solves these problems.

If you like what you're riding, don't change. Since straight bars can be had almost anywhere, and since we personally don't find them good for general riding, we don't sell them.

TOURING BAR

A simple design perfect for short commutes and leisurely rides when you want to sit upright. Made by Nitto. Clamp diameter is 25.4mm, so the only stem we sell that fits it is the Technomic, and the two make a nice pair. Aluminum, various practical bends such as the one shown. The 48cm 22.2mm bar diameter fits thumbshifters, mountain and 3-speed brake levers, and rubber grips

MEMBER PRICE: $20
NON-MEMBER PRICE: $26



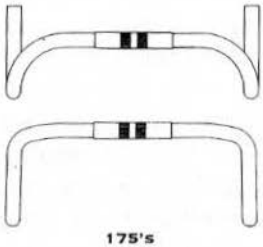
TOURING

NITTO #175

This is the last pure, classic-in-every way road bar. Shaped a lot like the Merckx bend 3ttt, but without the cable grooves. Lots of flat roaming room. If you like deep drops, you'll like this one. It's not as deep as a Cinelli #66, but it's still deep.

Drop: 152mm
Reach:100mm
Center sleeve diameter: 26mm
Weight(42cm): 320g
Sizes available: 40-42-44cm

MEMBER PRICE: $37
NON-MEMBER PRICE: $40



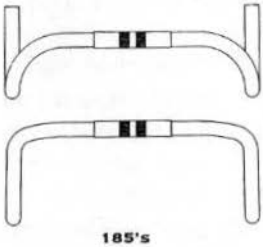
175's

NITTO #185

Lots of straight room on top, and a medium drop, similar to a Cinelli #64 or a 3ttt Tour de France bend. If you have deep bars now and you never ride the drops, switch to this and you will. If you haven't ridden medium drops for your whole adult life (because cool guys ride deep drops), then try these and see how great they feel. Line up the bottom of the brake lever with the bottom of the bar.

Drop: 140mm
Reach:87mm
Center sleeve diameter: 26mm
Weight(42cm): 315g
Sizes available: 40-42-44cm

MEMBER PRICE: $37
NON-MEMBER PRICE: $39



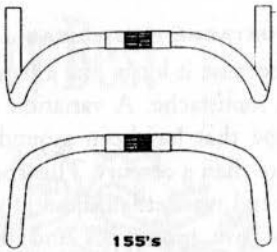
185's

NITTO #155

Nitto's version of the Cinelli #65 criterium bar. It's called a "criterium" bar because criterium racers stay on the drops and sprint more than road riders, and the curved upper portion of this bar lacks the roaming room of a road bar, but allows you to sprint wildly and lean forward without hitting the inside of your wrist on the upper outer portion of the bar. A 42 or 44 is wide enough to move around on up top. It is the prettiest handlebar we sell, mostly due to the Nitto crest on the sleeve.

Drop: 150mm
Reach: 88mm
Center sleeve diameter: 26mm
Weight(42cm): 300g
Sizes available: 40-42-44cm

MEMBER PRICE: $37
NON-MEMBER PRICE: $39



155's

NITTO RANDONNEUR

Randonneur bends are funny, but some people like them a lot and they're hard to find in bike shops, so we sell them. The upper portion is slightly swaybacked, leading to gentle shoulder humps; the drop is shallow, and the ends flare slightly. Great for an upright touring position. We imported ten, they sold out in a couple of days, we got more, and they sold fast–so what the heck, now it's a regular. Very pretty, with the crest logo. Sorry, no pic.

Drop: 120mm
Reach:105mm
Center sleeve diameter: 25.4mm
Weight(42cm): 315g
Sizes available: 42cm, 45mm

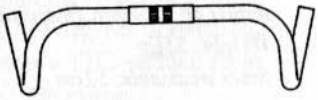
MEMBER PRICE: $30
NON-MEMBER PRICE: $36

NITTO DIRTDROPS

Originally designed for Bridgestone's 1987 Drop-bar MB-1. A 7-degree flare begins just below the middle of the curve, so the brake levers stay vertical and you gain wrist clearance. The flare helps pulling, too. Popular, feels great. Two models—standard, for road; or heavier, heat-treated, and stronger for off road/tandems. The first size is the width at the bend;the larger size is the width at the ends. Nitto, ever conscientious, wouldn't make the wider in a non-heat treated model.

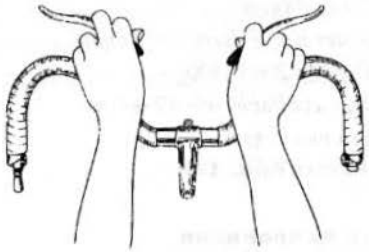
Drop: 140mm; Reach: 92mm
Center sleeve diameter: 26mm
Weight: Road,315g; Mtn (heat-treated), 430g
Size: 42cm/48cm (road); 46cm/52cm (mountain)

PRICE, ROAD: MEMBERS: $31, NON-MEMBERS: $35
MOUNTAIN: MEMBERS: $50, NON-MEMBERS: $55



DIRT DROP

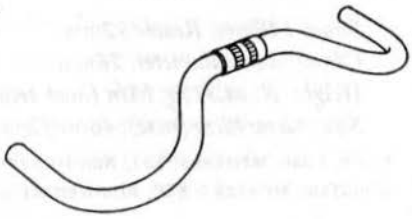
MOUSTACHE HANDLEBAR...



because it looks like a handlebar moustache. A variation of a shape that has been around for more than a century. This specific bend was settled upon after at least five prototypes and thousands of miles of testing and refinement. It offers the quick and easy braking position of a flat bar with the multiple hand positions of a drop bar—and is better than either for a whole lot of riding. You can go fast on the road and get more aero than you can with a standard drop bar. The wider-than-a-drop bar grip lets you pull yourself up steep climbs and stay in control on bumpy sprints. You can ride the Moustache Handlebar off-road and access the brakes instantly, just as you can with a straight bar. John Stamstad rode it to victory in two Iditabikes and two World Record 24-hour rides, and Gene Oberpriller won the Chequamegon Fat Tire race on it. We'd never credit the bars with these accomplishments, but both riders rode them because they like them, and the bars clearly didn't hold them back. We often hear from people who have switched to Moustache H'bars and found relief from back and neck pain. On a commute bike where speed, visibility, quick brake access, and multiple hand positions matter, there is no better bar. If you have an extra bike you don't ride a whole lot anymore, try some of these on it and that may change. Available in 26mm and 25.4mm clamp diameters, but otherwise identical. The bar diameter is 23.8mm (road size), so it fits all road fittings and bar-end shifters. Does not fit thumbshifters or normal mountainbikey stuff. If you don't know your size, measure or call, we'll figure it out. Heat-treated 2014 T6 aluminum.

Drop: 50mm
Reach:90mm
Center sleeve diameter: 26mm(most road stems) or 25.4mm (mountain stems)
Weight: 350g
Sizes available: 51cm

PRICE: MEMBERS: $50
NON-MEMBERS: $55



Nitto Makes The Very Best

Nitto parts are little-known in the U.S. because there is no U.S. agent or marketing; but in Japan there is such respect for Nitto's products that Nitto literally (yes, actually) wrote the book on testing standards for bars and stems. Besides the handlebars just covered, Nitto makes stems by four methods:

COLD-FORGED stems begin as rough extrusions of high-strength aluminum, and are bashed two to four times until the final shape is achieved. Cold-forging imparts to the aluminim a grain which follows the contours of the piece, just like the grain in a crooked tree branch. It's the strongest way to shape metal.

GRAVITY CAST stems begin as molten aluminum, and are poured to shape. The molten alloy contains bubbles, and you don't want bubbles in your stem, so the aluminum is allowed to slowly cool, which gives the bubbles time to gravitate up and out of the mold. Nitto's gravity cast stems are thoroughly tested and proven strong enough for any cycling use. (A more common manufacturing method, "MELT FORGING" is a cost-effective method in which low-strength aluminum is poured to shape, subject to pressure

to remove the bubbles, and cooled quickly by water. MELT-FORGED parts (which should be called "pressure cast") are stronger than die-casting (without pressure), but they're not as strong and far more brittle than gravity cast parts. Nitto does not "melt-forge."

Nitto also TIG-WELDS stems, including the fine TIG-welded Ritcheys (the most expensive ones; others are made by another vendor). The welds on these stems withstand pulling forces of 8 tons, and at least 320 degrees of twisting. We don't offer a TIG-welded stem now; maybe sometime.

NITTO FILLET-BRAZES STEMS (and frames, for that matter). Tom Ritchey, taught Nitto craftsmen

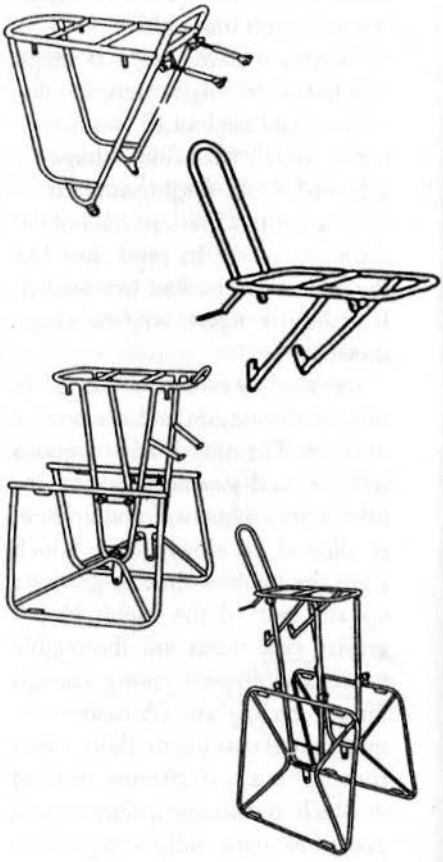
how to fillet braze, and in its Tokyo office, Nitto proudly displays photos of workshirt-clad Tom looking over the shoulder of brazers-in-training.

Nitto makes seat posts, as well. In 1988, when I worked at Bridgestone, Tom Ritchey approached me at the end of a trade show and asked to borrow the Nitto seat post we had on one of the bikes. I gave it to him, and he later refined it into his top-of-the-line post (he added butting to the inside of the tube). This post comes in various lengths and dressings, and is identical in all ways that matter to the one we sell here for $35. By all rights it is worth at least twice that, but we bought these from a blow-out specialist who bought them from Specialized.

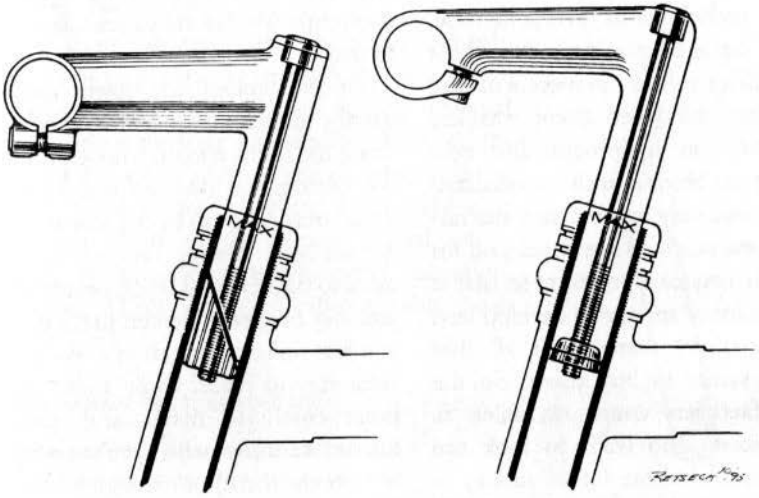
In November 1995 Nitto introduced a gorgeous two-bolt post they call the Jaguar, designed with input from Keirin racers. We carry it.

Nitto makes fillet-brazed, nickle-plated tubular steel touring racks, too. Some of its standard models don't quite work with Rivendells or other American-style bikes, but we're working with Nitto on special models that will, and we expect to offer them sometime—soon? We'll keep you posted in the Readers. In the meantime, here are a few illustrations of what Nitto has, and what we'll have won't be much different. Nitto's We're working with Nitto on racks that will pop on ours and most other American-style bikes. There will be several styles, including some you've not seen before, anywhere.

They'll be costly, strong, and gorgeous. There's no reason racks should uglify bikes, and these sure don't. We expect to have racks to sell by September, 1996. October at the latest. November at the very latest. We'll send out a notice in a flyer or *Rivendell Reader*. —*Grant*



Stem Talk



The vertical portion is the quill. The other part is the extension. When someone says "I want a 12cm stem," the 12cm refers to the extension, not the quill. These days people don't much talk about quill lengths, but they should. Quills affect stem and handlebar height, and consequently the amount of weight you have on your arms and hands and shoulders, and the stress you impose on your lower back. Raising the handlebars just one inch can often make the difference between pain and bliss.

Over the years, mostly since mountain bikes, quills have grown shorter. This, combined with a mountain bike-like trend of riding the smallest conceivable road bike, has lead to a whole lot of uncomfortably low road riders, who then erroneously blame their discomfort on the whole concept of the road bike. Back in the ancient 1970s there were two fairly popular long-quill road stems—SR's Swan, and Nitto's Technomic. Real goosenecks, and popular retrofit items. In those days racing wasn't as popular and influential as it is now, touring was more popular and influential, and there was no stigma to not looking like a racer.

We've all heard that racing is a testing ground for new technology

that will eventually trickle down and become affordable to even the dirt-poorest bicycle commuter or errand runner. That may have been the case when racers rode pretty much the same techology as everyone else, when major league marketing didn't play such a role in the success of bike widgets, and when there was less emphasis on equipment. But now racing has become such a specialized sport, and very specific and specialized new products are developed for it. This creates a problem, in that it costs a lot of money to develop new products, yet there aren't all that many racers to buy them. So the manufacturers count on sales to non-racers who want to look the part, and a whole lot of money is spent convincing riders they should emulate racers.

Stems are part of it. Stem makers have been trying to cut weight as much as possible, and one way to do that is by shortening the quill. A short quill means a low handlebar position (assuming the extension doesn't rise up a lot), and that leads to discomfort, and sometimes injury—both of which make it hard to go fast and not fun to even try. So, long live long quills!

WEDGE VERSUS CONE

Wedges stress the steerer more and improper use of a wedge is more likely to cause a steerer to actually break. Wedges require less tightening in order to stop a greased quill from turning, and are easier to loosen than cones. When you tighten a wedge, it cocks the stem over to the side, or the front or back ... ever so slightly. Wedge stems are cheaper to make.

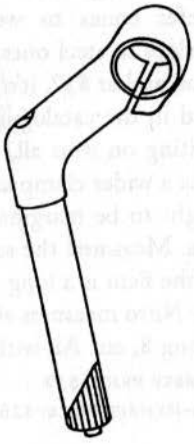
Cones expand the lower quill evenly, distributing stress evenly. Since the quills remain smooth from the bottom up, they do not introduce stress high up in the steerer, as do wedges. Cones require more force to tighten, and if you overdo it, you may bulge the steerer; that's why you just tighten enough to make the stem stay in place. Cone stems are more costly to make, and don't loosen as readily (when you're trying to loosen them) as wedge stems. With a cone, usually the bolt climbs up and you have to whack it down with a rubber mallet or a screwdriver handle. It's not as easy as loosening a wedge.

COMING THIS YEAR: A RIVENDELL LUGGED STEM

We hope to have a lugged road stem with a 73.5-degree angle and a 160mm quill-with-a-cone by October 29. It'll be made of Reynolds 531, 753, or 853, and finished in electrodeless nickel, for a hard, mythril finish. They'll cost around $150, maybe $180. We just have to save $4,500 to buy the tooling—and there's the rub. The design is finished; we will make it.

The Stems We Carry

NITTO DIRTDROP

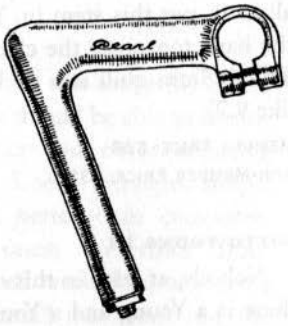


A short, tall stem with a steep rise, originally designed for the drop-handlebar 1987 Bstone MB-1, and still ideal for any off-road use with a drop or Moustache 'H'bar, or for road bikes when a higher and closer stem is the goal. Cold forged by Nitto from 2014 aluminum. Quill length: 190mm. Actual extension, 80mm; effective horizontal extension, 65mm. 335g. With or without cable hole. SPECIFY.

MEMBER PRICE: NO HOLE $42
NON-MEMBER PRICE: NO HOLE $46

MEMBER PRICE: WITH CABLE HOLE $42
NON-MEMBER PRICE: WITH CABLE HOLE $47

NITTO PEARL

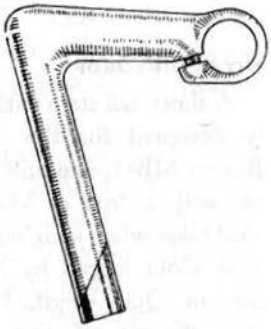


Cold-forged aluminum, beautiful satin finish—better than the old Cinellis, even—nose-in-the-wind clamp bolt like the Cinelli 1/A, but with a wonderfully tall, 150mm quill, so you can get the bars nice and high. The clamp area is narrower than many stems, and it looks especially elegant. It can't be as stiff as the Nitto Aero on the next page, but it's stiff enough.

Nitto measures stems through the center of the extension, not the top, so an 11cm Nitto measures about 11.7cm the way most stems are measured. This stem has a 72° angle and a 150mm quill. Our favorite stem. The side of it has Pearl (and then the size) in some script-tyle letters. That's kind of weird, but we've gotten over it, almost. 8-9-10-11-12-13CM

MEMBER PRICE: $45
NON-MEMBER PRICE: $46

NITTO AERO



These were made for Specialized back in the '80s. The 140mm quill on these is 10mm shorter than the Pearls, but still 5mm longer than a standard Italian cold forged stem. It tightens with a steel wedge. We prefer cones to wedges, and aluminum wedges to steel ones, but this is not a huge deal, and at $17, it's got to be the best stem deal in the catalogue, if not the world. No writing on it at all, no nothing, just plain. Has a wider clamp area than the Pearl so it ought to be marginally stiffer, if that matters. Measured the same as the other Pearl, so the 8cm is a long 8cm, etc 8-10-12mm, but Nitto measures along the side, so an 8 is a long 8, etc. All with 140mm quill.

MEMBER PRICE: $17
NON-MEMBER PRICE: $25

NITTO TECHNOMIC

When you want to sit upright and your bike won't allow it, put this stem in. You may have to change the bars, too, since the clamp diameter is 25.4mm. The 225mm quill is a backsaver. 9mm only (more like 9.7).

MEMBER PRICE: $28
NON-MEMBER PRICE: $32

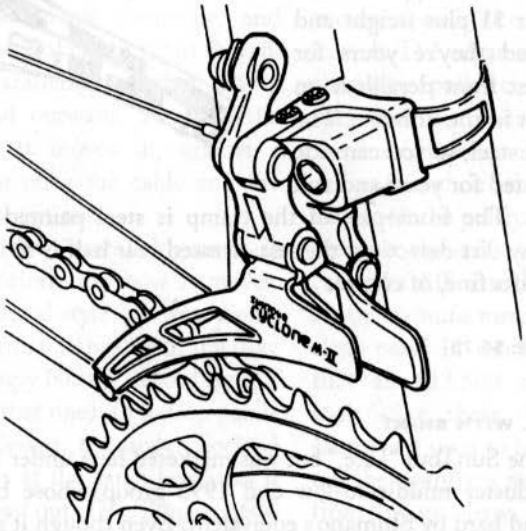
NITTO YOUNG III

Nobody, at least in this country, knows where the name came from, but there is a Young and a Young II, too. Young III is a nice stem with a tall, 160mm quill and a 72-degree angle. It's gravity cast,which you can read about in the introduction to this section. If you want higher bars and don't want to spend a lot, this is a great deal.

Sizes available: 9-10-11-12cm. 160mm quill with aluminum wedge.

MEMBER PRICE: $22
NON-MEMBER PRICE: $27

Front Derailleurs

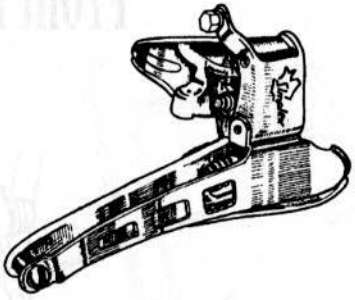


A front derailleur has such a simple task that it's hard to make a bad one. Some modern chainrings have ramps and hooks that allow you to shift without skill or thought, but they improve marketability more than shifting. Even the cheapest and simplest front derailleurs work extremely well. We like cheap front derailleurs.

Only four things matter in a front derailleur: (1) Fit. It's got to fit between the chainwheel and the crankarm of any crank you might want to use. (2) Weight. If it's more than 129g, it's too heavy. (3) Smart design. You should be able to identify the inner and outer adjusting screws. (4) Looks. Straight, simple cages look better than computer-designed ones. So—since front derailleurs all work fine, and since they're so small they don't hog the visuals, and they're so cheap they don't require or deserve the same amount of mental consideration as a crank or frame, and they're so easy to replace you don't have to feel stuck with it, we tend to like cheap ones.

We sell only clamp-on models.

SIMPLEX B&B FRONT RACING DERAILLEUR



Made in France, but their last home was in the Philippines. We bought them for $1 plus freight and import duty, and they're yours for $5—the cheapest front derailleur on the planet, if not in the universe. The cage is chromed steel, so you can ride with it maladjusted for years and still not wear it out. The front part of the clamp is steel painted white, for strength and easy dirt detection; the less-stressed rear half is red plastic for cheapness. It shifts fine, of course.

MEMBER PRICE: $5
NON-MEMBER PRICE: $6.75

SUNTOUR LITE, WITH SHIM!

It's marked the SunTour "Lite," but was marketed here under the "Blaze" moniker, a lackluster middle-to-low end 1992 group whose behind was spanked long and hard by Shimano's equivalent. Even though it's not heavy, it's not light enough to be called Lite. It's sized for an inch and a quarter seat tube (too big) and our frames and most others come in inch and an eighth, and so you need a shim to make it fit, and we provide a clear, rubbery plastic one that works pretty well. The concept is nice—a rubbery, high friction shim between the metal clamp and the paint. Maybe all front derailleurs should be made oversized and supplied with a shim. All metal, no funny paint or cheap polish. The adjusters are external, so you can see what's happening. Very nice, we ride them, they work great, and are not out of place on any frame.

MEMBER PRICE: $6
NON-MEMBER PRICE: $8.98

WE CANNOT GET GRACE FROM GADGETS.
—Joseph Priestley

Rear Derailleurs

Over the years there have been so many brands from so many countries, and such a variety of designs, but they all have a parallelogram that pivots inward and outward. You pull the cable and it moves in, against a spring; you relax the cable and the spring moves it out.

How the parallelogram is designed determines how it moves. The traditional style is a *drop parallelogram*, which hangs vertically (like an old Campy Nuovo Record style, if you know that one). In a drop parallelogram design, the upper (jockey) pulley stays at the same height as it moves in and out. The Simplex 6600 we sell is a horizontal parallelogram, which looks like a slant (below) and functions more like a drop.

The modern style is the *slant parallelogram*, developed by SunTour in the early '70s. In a slant parallelogram style, as the parallelogram moves inwards, it moves downwards as well. The advantage to this is that the jockey pulley can be set closer to the small cog initially, and follows the line of the cogs more closely, as it moves in and out; the idea being that the closer the pulley is to the cog, the snappier the shifts. None of us here can tell a difference, though. All currently manufactured derailleurs are slant paras in much the same way that all $13,500 subcompact cars look alike these days. This is a shame—it used to be that you could tell the country a rear derailleur was from by its shape, and you could name brands from twenty yards, and designers cared how the derailleur looked. Modern derailleurs all look pretty much alike, variants of the early '70s SunTours.

SACHS CENTERA LONG CAGE

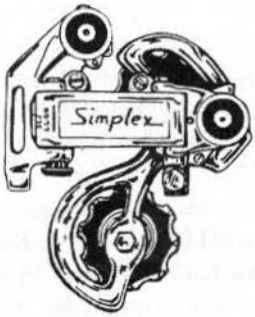
Made in France by Sachs, probably in the old Huret factory, since Sachs bought Huret; but it has Sachs written all over it, figuratively speaking. Steel cage and back plate, aluminum body. Mostly silver, with a black outer parallelogram. A German-influenced French workhorse. By old derailleur standards it's ugly; by current standards it's average. In 10 years when all derailleurs are plastic we'll wish there were more of them. Shifts great up to 32t and wraps up to 40t (front chainwheel difference plus freewheel difference). 302g, which is lighter than it looks and not all that heavy these days.

MEMBER PRICE: $30;
NON MEMBER PRICE: $33

The French Way? Oui!

Instead of threading into the dropout tab like a normal (not French) derailleur, Simplexes have a bolt that passes clean through the backside of the tab and threads into the derailleur itself. They were made for threadless Simplex dropouts, but they work on all dropouts.

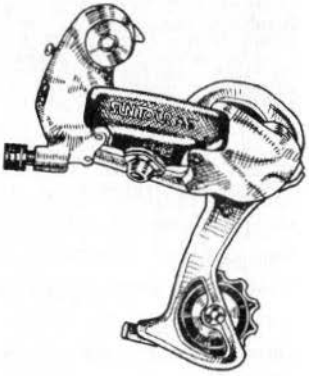
SIMPLEX #6600 REAR DERAILLEUR



Same quality as the #5500, but rated to 24T max. A really nice derailleur, but nobody ever buys it, so the price has recently plummeted. If all you need is 24T, this is the best bargain in the catalogue. 199g.

MEMBER PRICE:
$50; $60 WITH BULLSEYE PULLEYS
JAPANESE NON-MEMBER PRICE: $200

SUNTOUR XC PRO SHORTIE



This was SunTour's best triple-compatible rear derailleur, and it came in three versions, differentiated by cage length, and therefore rear cog capacity. The longest cage version could handle a 35T rear cog, but that was a rare piece. The middle version is what you'd probably call a standard long-cage design, with a capacity of 32T. This one, the shortie, handles rear cogs up to 28T, and doesn't let you ride in your favorite 24x12-13-15 combos. That makes it the derailleur for people who know better, which is good, and those who don't need larger than 28T rear cogs. It shifts great, looks great, and is beautifully made in every detail. Double or triple rings. 235g.

MEMBER PRICE: $60
NON-MEMBER PRICE: $75

Gear Shifting and Shifters

I have a poster of a rider changing gears in the 1937 Tour de France. He's off his bike and cradling the rear wheel between his legs as he removes the wheel to flip it over to get another gear (that was the way). Thank goodness we don't have to shift like that, but what's the goal—telepathic shifting? Not here. This is not the year 4545, and let's not wish it were.

Personally, I like working a bike I can understand. If that means I mis-shift and grind metal for a stroke or two in between gears, so what? Will I lose a race because of it? No, because I don't race anymore. Will my weekend riding buddies laugh and ride away from me and leave me stranded because I flubbed a shift and slowed down? No, I ride with friends.

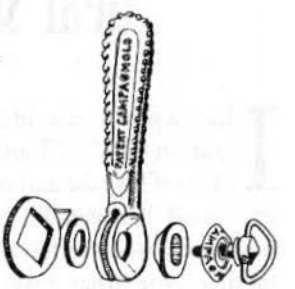
We sell friction shifters only. Some of them index as well, but we sell them because they have a friction mode, and we are unable to answer questions such as "will the Superbe Pro shifters index with a Hootenanny Ti cassette?"

Friction shifting brings you in touch with your bike and allows you to use any shifters, chains, freewheels, cables—unlike indexing, which requires a fairly idealized and narrow working environment. Indexing is called "click shifting," but friction is click-shifting, too. The difference is that with friction, the clicks happen back at the chain/freewheel, so you get your feedback from the front line. They're honest clicks, and you shift until they're gone. Index shifting distracts you with clicks in the lever, hiding from you the fact that the real action is behind you.

There are circumstances when you may prefer indexed shifting, but the way index has been sold is a bit fishy. The chant is: *It'll let you concentrate on nature, on enjoying the ride, on winning the race,* the hidden message being that friction shifting requires so much concentration that you end up focusing on the shift instead of life. But it doesn't work like that.

The lure of guaranteed perfect shifts every time calms the fears of new riders, and that's fine. But unlike the first versions of indexing, the more recent ones don't have a friction option, and without a friction option, the skill, the art, the fun and challenge of shifting is gone—along with the pleasure in making a perfect shift when the perfect shift isn't guaranteed by the system. Finding the right gear in friction is no harder than finding the right radio channel using a dial, and the skills needed are virtually identical. Use your skills or lose them! It's only 1996! —*Grant*

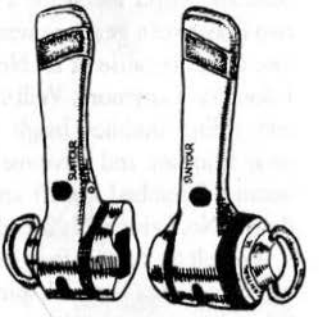
CAMPAGNOLO NUOVO RECORD DOWNTUBERS



These are the classic downtube shifter, and will outlast any bike they go on. The lightest, best-looking and longest lasting shifters of any kind ever made. The only complaint anybody ever has with these is that they tend to loosen up. It's not a big deal, since the handy wing nuts make them easy to snug as you ride. Anyway, if you put some beeswax on the threads or in the boss (instead of grease), the problem is 90 percent solved. We have 87 pair left, and when they're gone, that's it. For braze-ons (only one side shown). 39g/pr.

MEMBER PRICE: $21 (MEMBERS ONLY)

SUNTOUR SUPERBE PRO NOLAT DOWNTUBERS



New, made in 1986, and probably the most expensive-to-make downtube shifters ever. Both shifters have SunTour's power ratchet, a wonderful mechanism you owe it to yourself to experience. The right lever has an index mode as well, but put them in friction and you'll be happy no matter what. There's another interesting thing about these: when you release the right lever after shifting, it springs forward just a hair. When I first noticed this, I thought "whaat?—that wrecks my shift!" But after using these, I'm convinced that it's some sort of "auto-trim" feature that SunTour designers came up with, since most rear derailleurs, maybe all of them, require a certain amount of overshifting, then trimming, to get the gear.

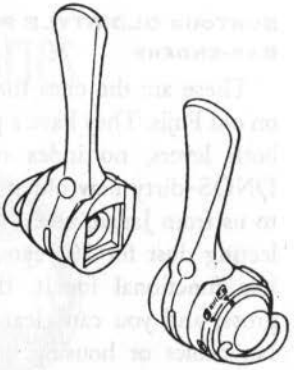
I used to think Simplex retrofriction levers were the best; then I tried Campy C-Record retrofrictions and thought they were it. Now I think I think these are it, or the Sprints. A toss-up. They have a wonderful, light pull, and they don't slip. Compare the price to contemporary shifters and you'll see what a bargain these are. 82g.

MEMBER PRICE: $32

NON-MEMBER PRICE: $36

CATALOGUE & PRICE LIST

SUNTOUR SUPERBE PRO LAT DOWNTUBERS



New, made in 1991 or so. The right has a 7-speed index mode, a "soft click" mode—that's the Litigation Avoidance Technology SunTour developed so Shimano wouldn't sue them for having a pure index/pure friction shifter. But there's also a secret pure friction mode, unmarked, in between the index and soft click—marked "friction" on the shifter. This is the mode to use if you don't like clicking. The left lever is a power ratchet, and the large drum is so large, you'll get maybe 25 degrees of travel between rings. (That's neither good nor bad.)The lever shape is the prettiest of any lever, they work great, and they come with with cables and housing. 84g (sans cables/housing). They're cheaper than the other SunTours only because they don't have a Power-Ratchet on the right, but the friction mode works great.

MEMBER PRICE: $24
NON-MEMBER PRICE: $27

SUNTOUR SPRINT DOWNTUBERS

New, made in 1986. Power Ratchet left and right with no index option, which is why the housings are so slender. They don't have the funny-yet-functional springback that the Superbe Pros do, but they shift like demons. If you want good friction shifting cheap, get these. 59g.

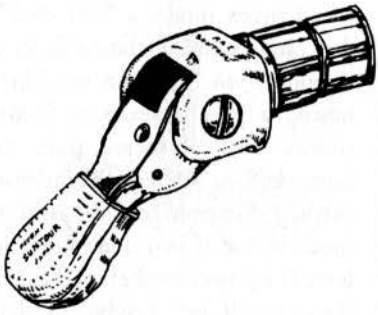
MEMBER PRICE: $28
NON-MEMBER PRICE: $30

SUNTOUR 1986 POWER-RATCHET BAR-ENDERS

These were made in 1986 only. The right side indexes SunTour 6-speed clusters but has a nice, smooth pure friction mode, too. The left lever is a Power Ratchet. If you have a 7-speed cluster, use the left on the right, because it pulls more cable. Comes wrapped up in a package, complete with cables and housing. A great deal, our biggest seller.

MEMBER PRICE: $39
NON-MEMBER PRICE: $50

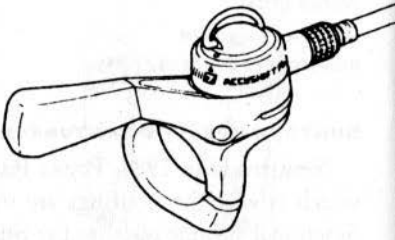
SUNTOUR OLD STYLE POWER RATCHET BAR-ENDERS



These are the ones that used to come on old Fujis. They have a power ratchet in both levers, no index option, and are DNOS–dirty new old stock. They came to us from Japan, where they'd been collecting dust for 20 years, but they're no less functional for it, they're far from gross, and you can clean them yourself! No cables or housing, just the shifters. What a find!

MEMBER PRICE: $35/PR
NON-MEMBER PRICE: N/A

SUNTOUR XC LTD THUMB SHIFTER



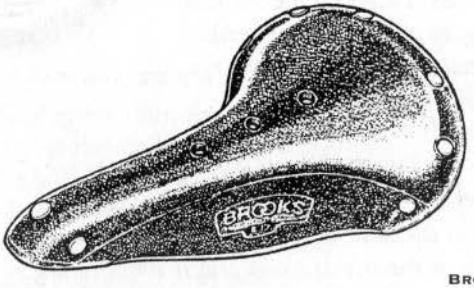
These are to mountain bikes what downtube and bar-end shifters are to road bikes: Sensible, traditional, obsolete. The left shifter has SunTour's power ratchet mechanism, worthy of the loudest raves you can rave. The right is LAT—indexed with a quasi-friction option—there's still a light click, but the stops are easily overridden, so you can almost pretend they aren't even there. A wonderful shifter for any swept-back bar, too, in which case you mount them on the outside of the bar so the lever travels up and down. Very convenient. Complete with cables, housing, original packaging.

MEMBER PRICE: $30
NON-MEMBER PRICE: $33

THERE ARE VERY FEW ACCOMPLISHMENTS OF ANY VALUE THAT CAN BE GAINED WITHOUT PRACTICE, AND THAT WHICH TAKES THE LEAST TIME TO LEARN IS USUALLY THE LEAST VALUABLE WHEN LEARNED.

—The Eagle Bicycle Company catalogue, 1890

Saddles & Accessories



BROOKS B.17

BROOKS B.17 SADDLE

The prettiest saddle in the world. A spiffed up (just for Rivendell) B.17 with Brooks Pro-thick honey brown leather, large, hand-set copper rivets, chromed rails, and a chamfered lower edge. Wide enough to support your sit bones; shaped right so as not to crunch your perineal area. Properly set up, the rear portion is slightly higher than the neck and nose. Get it right! Weighs 513g, and worth every mg.

MEMBER PRICE: $65
NON-MEMBER PRICE: $70

BROOKS B.72 SADDLE

The original mountain bike saddle. A two-railed saddle which requires either a straight post or the Joe Breeze adapter, both of which we have but don't list, for $10. Black, with integral loops for carrying saddlebags.

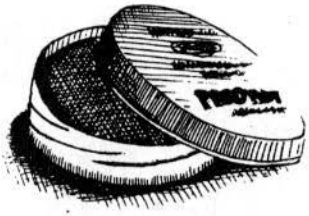
MEMBER PRICE: $55
NON-MEMBER PRICE: $59

BROOKS CONQUEST

About as wide as the B.17, but has coil springs in the rear to soak up shocks. The springs add weight but work well. Honey brown with black hardware. No saddlebag loops, so you use the coils. A nice saddle, and the springs work.

MEMBER PRICE: $60
NON-MEMBER PRICE: $65

PROOFIDE



Brooks's pink proprietary blend of beeswax, candle wax (recycled?), citronella oil, tallow, and "cod oil"—presumably from the liver, but who can say? One or two treatments per year will help that leather saddle; ten will hurt it. 2.75oz with the tin.

MEMBER PRICE: $5
NON-MEMBER PRICE: $6

BROOKS TENSION TOOL

Grabs the nut at the nose, so if you bounce on your saddle for five hours in the soaking rain and it starts to sag, you can snug it up again. In light of Brooks's cautions against overtensioning, the rate at which we sell these tools scares me. Cute, compact, chromed, and with the Brooks logo.

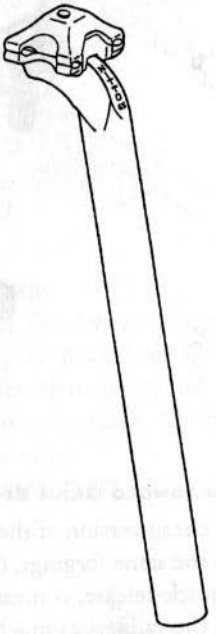
MEMBER PRICE: $5
NON-MEMBER PRICE: $6

Note about leather saddles:

Everybody, it seems, has a pet formula for treating the leather. Connoisseur/tycoon/bon vivant Bob Gordon likes Rennaissance furniture wax, and says that's what curators use to restore and protect old leather. Brooks offers Proofide, and that's what we sell.

A new saddle is ready to ride, and despite what you may have heard, it won't take years, months, or even weeks to break in. If you don't love your saddle within 50 miles, make sure it's set up right—that's really the key. Adjust yours so that rear portion is higher than the neck and nose. Not by a lot, not so that the nose looks angled downward, but just a little, as the maker intended. You sit on the higher rear portion, which supports your sit bones. Your tender perineal region (between your genitals and your crack) is positioned over the neck, but not pressed hard against it. If you're getting numb down there, you've got too much pressure on your P-region; you probably need to raise the back of the saddle.

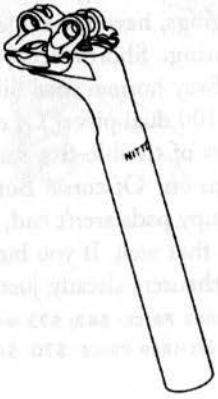
Seat Pillars



NITTO ONE-BOLT SEATPOST, 27.2 X 330MM

It looks like a Ritchey—no surprise, since the Ritchey is a Nitto post tweaked here and there for Tom. I like it because it has a high SPO (for seat post offset). Light, strong, pretty, easy to adjust, and what else matters in a seat post? Size matters, and we have 27.2 only. These used to be owned by Specialized, and and they sport that logo. If it bothers you, take it off with light sanding or Easy Off. (No offense to Specialized.) 330mm long, 235g. If you chop it down to a reasonable length you can lose another 18g. Terrific post, and a steal at this price.

MEMBER PRICE: $33
NON MEMBERS: $42



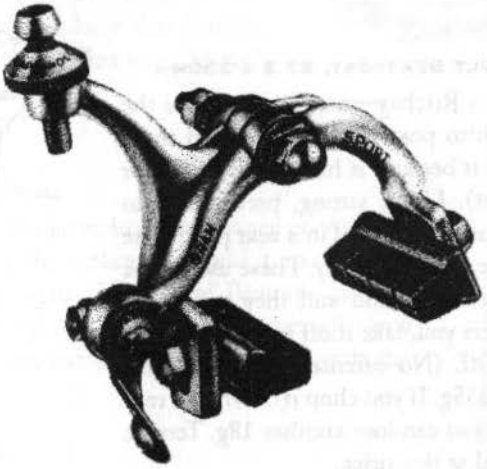
NITTO TWO-BOLT FROG POST, 27.2MM 210MM & 350MM

Two-bolt posts are good, since two bolts to share the load better than one, so there's less of a tendency for the post to slip. This is the best of the two-bolters, and easier to use than the old Campy, since the bolts are 6mm allens and you access them from underneath. Slightly more SPO/setback than the one-bolter.

210mm & 350mm. 27.2mm only. Specify length.

MEMBER PRICE: $70
NON MEMBERS: $75

Brakes & Accessories



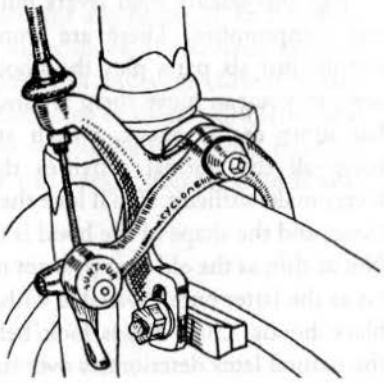
CAMPAGNOLO GRAN SPORT BRAKESET, COMPLETE.

A cheap version of the Nuovo Record. What's the difference? These seem to be the same forgings, minus the polish. The hoods are black, not gum, and the quick-release, contrary to the picture, is not micro-adjusting, so it won't open the calipers as much as the Nuovo Record's—a minor annoyance if you ride 700 x 32 or larger tires on sub-20mm rims, but no biggie if you don't. Also, no wheel guides. But the levers are wonderful, the calipers are the same forgings, have the same wonderful shape....and they come with cables and housing. Short reach (42/52) with through-bolts (not allens). Fits any even halfway normal road bike made today. Do they work as well as a Shimano RX100 dual pivot? Of course not. Do they work well enough to provide 25 years of trouble-free service, and do they add appeal to any frame you put them on? Of corsa! But by all means, get some Mathauser pads for them. Campy pads aren't bad, but these are old and hard-like, and they don't stop you that well. If you buy them without Mathausers, we'll assume you have Mathausers already, just waiting to go onto these. (Now we're covered.)

MEMBER PRICE: $63; $73 WITH MATHAUSERS

NON MEMBER PRICE: $70; $85 WITH MATHAUSERS

SUNTOUR CYCLONE SIDEPULLS

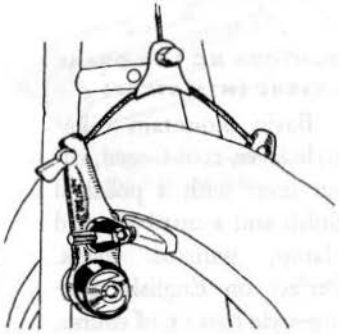


New old stock, made around 1987. These brakes have a lot going for them: a true micro-adjusting quick release, a real two-piece (metal with rubber o-ring) barrel adjuster, cold-forged arms, nice silver finish (alas, not satin), and wheel guides to make wheel changes faster and easier. The centerbolt arrangement is simpler than what you're used to on other top-quality single-pivot sidepulls, but you may not have noticed had we not mentioned it, and the brakes are a cinceh to center with two 5mm allens.

If you like Campy and other premium sidepulls, but they no longer hold you spellbound, and you just want great brakes at a great price, these Cyclones are untouchable. They're simple, light, more honest than most, and now a relic from SunTour near the end of its heyday. Maximum reach: 49mm.

MEMBER PRICE: $28 PER PAIR; $36 WITH MATHAUSER BRAKE SHOES
NON MEMBER PRICE: $35 PER PAIR; $49 WITH MATHAUSER BRAKE SHOES

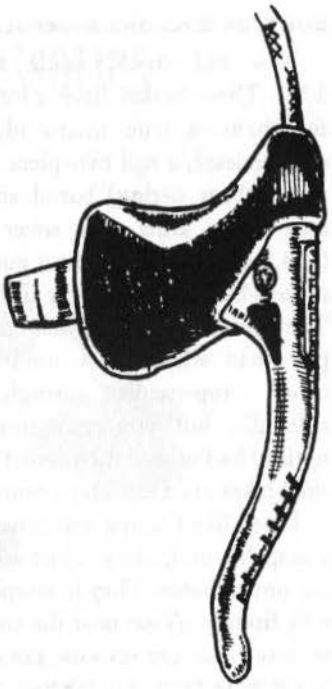
SUNTOUR XC PRO CANTILEVER BRAKES



These are the best low-profile cantilevers we've used, and our third favorite cantilevers of all time (behind Mafacs and Dia-Compe #982s). Cold-forged, top quality hardware (no mushy washers to distort or slip), easy to set up, powerful, and what else matters? They have a titanium finish, but it looks silver enough. The stock brake shoes are fine, but they look a little small to me, so I ride them with big brick Mathausers. Complete (one bikesworth), sans levers.

MEMBER PRICE: $38 WITH STANDARD SHOES, $50 WITH MATHAUSERS
NON MEMBER PRICE: N/A

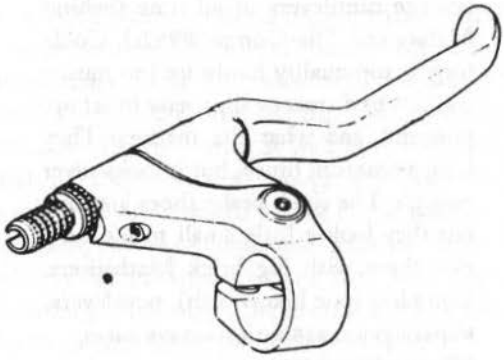
SUNTOUR SUPERBE ROAD LEVERS



Top, pro-quality road levers built without compromises. These are wonderfully simple, just six parts plus the hood. Non-aero, so you can move them around on the bar more easily, retape, switch stems or bars—all the normal activities that aero levers make difficult. You'll love the look of these, and the shape of the hood is the best. Not as thin as the old Campys, not nearly as fat as the latter ones. Available with gum or black hoods. Gum hoods look better, but the natural latex deteriorates over time, and I'm not sure where you can get replacement hoods; Loose Screws in Oregon, maybe. Or wait for Willow leather hoods, around September. Don't avoid gum; just don't store your bike outside, and in the off season, if you have one, wrap the hoods in cellophane. *Imagine that.*

MEMBER PRICE, W/GUM HOODS: $38
W/BLACK HOODS: $28
NON MEMBER PRICE, W/GUM HOODS: N/A
W/BLACK HOODS: $35

SUNTOUR XC LTD BRAKE LEVERS (MTN STYLE)



Basic mountain bike-style lever, cold forged, silver lever with a polished finish and a cast body and clamp, painted black. Perfect on English touring-style bars or, of course, the straight mountain bike bar. SunTour brand, but made by Dia-Compe.

MEMBER PRICE: $28
NON MEMBER PRICE: $35

MATHAUSER BRAKE SHOES

There is no need, under any circumstance, for any better brake pad than these—the oldest and still the best of the super shoes. If you have crummy brakes, put these on. If you ride long, steep hills and your current brakes fade, put these on. Available in several styles, some of them quite fancy and costly. The cheaper ones work 97 percent as well as the fancy ones, but they look a little cruder. Mathauser pads make bad brakes decent, good brakes great, and great brakes ridiculous.

MEMBER PRICES:

BASIC ROAD SHOES, SET OF 4: $13

BASIC CANTI SHOES, SET OF 4: $19

SLIP-IN ROAD SHOES, FOR OLDER STYLE CAMPY-STYLE, SET OF 4: $11

FANCY ROAD SHOES, FINNED AND CURVED, SET OF 4: $33

FANCY CANTI SHOES, FINNED AND CURVED, SET OF 4: $37

NON MEMBER PRICES:

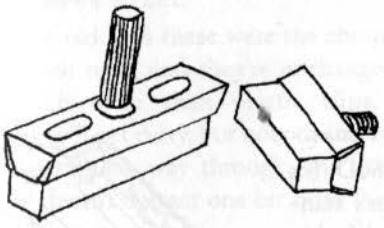
BASIC ROAD SHOES, SET OF 4: $16

BASIC CANTI SHOES, SET OF 4: $22

SLIP-IN ROAD SHOES, FOR OLDER STYLE CAMPY-STYLE, SET OF 4: $14

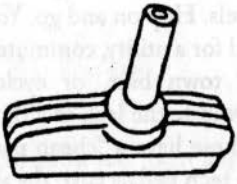
FANCY ROAD SHOES, FINNED AND CURVED, SET OF 4: $38

FANCY CANTI SHOES, FINNED AND CURVED, SET OF 4: $41



Basic Shoes. Rather ugly, but by far the best deal.

Slip Ins to fit Campagnolo-style brake shoe holders.

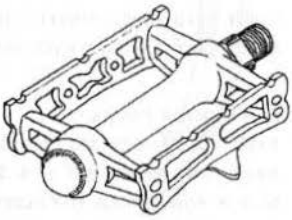


Thsi is the Fancy Shoe, a little lighter, and with fancy fins which (we hear) keep either the pads or rims cooler (not sure which, with luck, both).

Pedals, Clips, & Straps

The pedals we offer are made in Japan by Mikashima, aka MKS. MKS makes a full range of pedals from basic low-enders to absolute top quality. You've seen them masquerading as SunTour and Specialized pedals, maybe others. We carry two good ones that do the job, look good, last long.

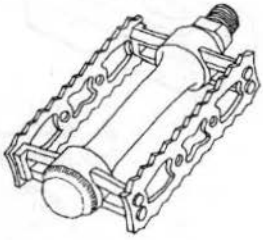
MKS Sylvan Track & Road Pedals



Classic track-style cages (equally good on the road or off), with flip-tab, alloy cages, real screw-on dustcaps, and serviceable ball-and-cone bearings. Not as high quality as a Campy, Zeus, or TA pedals (yes, TA makes pedals!), but they break in nicely and get smoother as they go. Good for at least 12,000 miles, and easily serviced with the tool they now come with, plus a screwdriver which you must have somewhere. They look nice enough to go on any bike. Take off the dustcap when they're new, turn them sideways, put in a ring of Phil's Tenacious Oil. About 315g per pair.

Member Price: $48
Non Member Price: $53

MKS Sylvan Touring/Cyclocross Pedal



Copies of the French Lyotard 460D (or whatever it was), the cyclo-cross racer's standard for decades, but made better! Good for big feet, traditional cleated shoes, fake Topsiders. real sandals, or fake Sorels. Hop on and go. You shan't find a better pedal for a utility, commuter, messenger, get-around town bike, or cyclo-cross, for that matter. Despite the lack of a flip tab, they're amazingly easy to flip into on the trail. These have a "cheap pedal" look, but when you compare them to what high tech pedals cost, the value is obvious. Toe-clip compatible! Lube with Phil oil. 410g per pair.

Member Price: $38
Non Member Price: $42

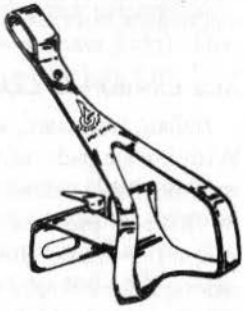
CATALOGUE & PRICE LIST

ALE (AY-EL-EEE) STAINLESS STEEL

Why didn't somebody make stainless clips when toe clips were popular? These don't rust, they look nice, and they're a little lighter than the Christophes below. They come shaped to fit the box, so when you get them, just shape them to your shoe. It's easy. 68g (med) Available in S-M-L-XL. Don't know? Tell us your shoe size.

MEMBER PRICE: $12
NON MEMBER PRICE: $16

CAMPY ALUMINUM



These are the neat ones with the funny cleat-guide. Very pretty, a wispy 29g in a medium (fits to 43), and they won't break unless you abuse them. S (fits to 39), M (fits to 43). No large.

MEMBER PRICE: $15
NON MEMBER PRICE: $17

CHRISTOPHE STEEL

In the old days these were the cheapies that the unrich rode, and they're unchanged since. So much nicer than plastic clips. In 10 years they'll get rusty, but nobody has ever seen one rust all the way through, and a little bit of rust doesn't detract one bit from their looks of function.

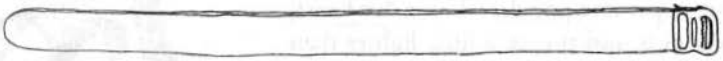
S, M, L

MEMBER PRICE: $10
NON MEMBER PRICE: $12

GPM STEEL

Large only, functional but ugly, gotta sell them anyway, perfect for a city bike. Someone said "they look like they're made from those funky gold coat hangers," and it's true. But it's strong spring steel. Large only.

MEMBER PRICE: $3.50
NON MEMBER PRICE: $4.02



INEXPENSIVE ITALIAN LEATHER TOE STRAPS

These say Bianchi on them, and they're sort of a deep celeste (blue-green clay) color. Darker than real celeste, but they'll fade just fine by your fourth double-century. Also good for strapping on Tool & Tube Totes.

MEMBER PRICE: $5 PER PAIR.
NON MEMBER PRICE: $6

ALE LAMINATED LEATHER TOE STRAPS

Italian, laminated, absolute top quality. With buckle pads, so they're luxurious as well. Buckskin yellow, and they fade. (Do we have a problem with unfaded toe straps?) I think the buckle could be redesigned, as they're a little stiff to pull, but they loosen up and the buttons they come with help. The best straps made.

MEMBER PRICE: $15
NON MEMBER PRICE: $16

ALE BUCKLE PADS.

They slip onto any toe strap and sneak in under the buckle, so you don't feel the buckle under any circumstance. Smart, smart.

MEMBER PRICE: $5
NON MEMBER PRICE: $6

GO ON A CLUB RIDE THESE DAYS USING NONCLIPLESS PEDALS AND YOU'LL BE DUBBED RETRO BEFORE YOU CAN BREATHE. RETRO HAS NOTHING TO DO WITH IT. REGULAR PEDALS MAKE YOUR BIKE READY FOR ACTION, EVEN A MILK RUN, ANY TIME, WITH ANY SHOES. AND IF THEY WEREN'T SO EASY TO GET IN AND OUT OF THEY WOULDN'T HAVE LASTED FOR 90 YEARS. UNCOMFORTABLE? NO! PUT THE BUCKLE HIGH, USE A BUCKLE PAD, OR JUST DON'T OVERTIGHTEN THEM.

Chains

Today's chains are designed to shift under load and span eight-cogs with short chainstays, and that means they have to be flexible laterally, and that requires a narrower chain, which isn't as strong. So to compensate, chainmakers peen the rivets over so much that when you press out the rivet to take the chain off or whatever, it rips a hole in the plate, making today's chains effectively unrepairable, even with a direct-drive style chain tool (as opposed to the pliers type, which swings the pin-presser-outer through an arc and really causes trouble with the newer chain links). The Craig Metalcraft master link is a good idea, and we'll have by July, $10.

DID SUPERLIGHT MOUNTAIN BIKE CHAIN

Fine for up to 7-speed road bikes, too. D.I.D. is a Japanese chain company that went out of business about two years ago. That's a shame, because they made great chains. The old, familiar D.I.D. chain was the Lanner. We hadn't heard of the Superlight until a distributor called up and said "You'll never believe what I just got in..." They're black, and I'm not sure why they're "superlight," because they weigh 324g, about average for a chain. Being a "mountain bike chain" indicates that it is super strong, able to withstand the shift-while-standing-and-at-the-wrong-time stresses so popular with the practitioners of the sport. Black

MEMBER PRICE: $14 UNWAXED; $16 WAXED
NON MEMBER PRICE: $17 UNWAXED; $22 WAXED

UNION CHAIN

This made its debut in the high-tech/modern bike scene around 1992 or so, then Union in Germany decided to get out of the chain business and sold the tooling to somebody in Poland, nobody knows who.

It's strong (we've not broken one), shifts as well as a chain has a right to, and works for 6- and 7-speed freewheels only, not 8. Black, not waxed, but comes in a box. Great chain, so don't be afraid to try it just because you haven't hear of it before.

MEMBER PRICE: $14
NON MEMBER PRICE: $17

RIVENDELL BICYCLE WORKS

Freewheels

We don't sell cassettes. There's nothing wrong with cassettes, but there's something fishy about the way they're promoted. Cassettes support axles better, so you don't break axles; but Bullseye, Phil, and others have proven that you can totally eliminate axle-flex and breakages with a better designed freewheel hub. More likely, the real reason cassettes have overtaken freewheels is to increase production efficiency for the large hub makers. We and many others find freewheels quicker and easier to change than cassettes; and freewheels certainly have versatility on their side. Freewheel availability has got to be a concern for anybody with freewheel hubs. Cassettes change often enough to make year-to-year compatibility an issue, so it's not as though once you've got your cassette body, you'll always be able to get the cogs. But there's little incentive for anybody who ever made freewheels to continue making them. Shimano still makes one cheap model. SunTour is history. Regina-the-company still exists, but we hear they're making conveyor belts or something. Sachs, the great German hope, still offers a full line of freewheels, but the word is they'd like to cut back their selection. Factories see freewheels as money-eaters.

SACHS FREEWHEELS

Six and seven speeders, all with 13t top gears, because they don't make 14t top gears anymore. Great splined removal system—no notches to wreck, and the tool won't slip. We're kind of nervous about offering $40 freewheels, especially when you can get them for $27 at Nashbar. We're keeping our price down as much as possible. Availability is sketchy, but we'll try to keep them all in stock. If you want 13x30 or 13x32 or 12xAnything, it takes a couple days longer.

SIX: 13 x 21 (14-15-17-19)
13 x 24 (15-17-19-21)
13 x 26 (15-17-20-23)
13 x 28 (15-17-20-24)

MEMBER PRICE: $40
NON MEMBER PRICE: $45

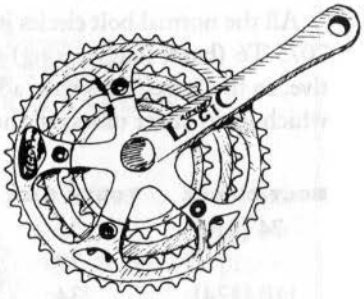
SEVEN: 13 x 21 (14-15-16-17-19)
13 x 24 (14-15-17-19-21)
13 x 26 (15-17-19-21-23)
13 x 28 (15-17-19-21-24)

MEMBER PRICE: $42
NON MEMBER PRICE: $47

PHONE: (510) 933-7304 • FAX: (510) 933-7305

Cranks

RITCHEY TRIPLE CRANKS



The best 110mmx74mm (mtn bike size) crank made, we think. With a 120mm spindle it has a nice low 151 Q-factor (distance between the pedals), and that counts a lot around here. Wonderful, smart design, probably unimprovable. Pretty satin silver finish, typical of Sugino's best cranks (it is Sugino-made). If you don't like the big LOGIC decal on the crank arm, remove it chemically or with fine sandpaper. Other than that, good work, Tom!

46x36x26 rings. 170-172.5-175mm Silver only.

MEMBER PRICE: $190

NON MEMBER PRICE: $210

Chainring substitutions: $7 per ring if we keep the one you don't want, and you do the labor. For good shifting, keep the tooth difference between the middle and big ring equal or smaller than the tooth difference between the middle and small ring. For example, 48 x 37 x 25 is a good one; 48 x 34 x 28 is not. Ritchey doubles (53x38) are available for $175, but since there is no detectable functional or dimensional difference between a double and triple crank, and since triples at least give you the option of a third ring, we recommend cranks designed for triples, even if you run two rings.

SUNTOUR SUPERBE PRO CRANKS

SunTour's best professional grade crank. Cold-forged, pretty, nice design, and we bought them cheap, so we can make money on them and offer you a great deal. The 172.5s have 53x39 chainrings; the 175s have 52x42 rings. No switching at this price. Silver. These will work fine with SunTour or Phil spindles between 109 and 112mm. Or use it as a triple, with one of our triplizer chainrings, in which case you'll need something around 120mm-123mm. **Specify arm length!**

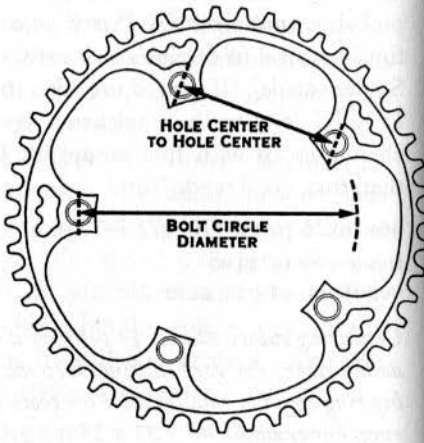
MEMBER PRICE: $130

Willow Chainrings

WILLOW CHAINRINGS

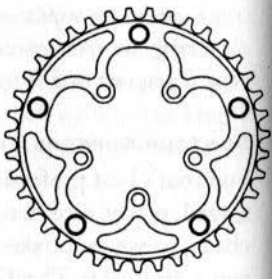
All the normal bolt circles in some pretty unusual and useful sizes. All are 7075 T6 (hard, longwearing) aluminum. We've tried to make them attractive, so the larger sizes have a W cut out of the web. Silver or Apple Juice—which looks silver unless it's next to a real silver one.

BOLT CIRCLE	TOOTH SIZE
74 ($18)	25
	29
110 ($24)	34
	37
	39
	49
	50
	51
	53
130 ($28)	48
	51



TRIPLIZER CHAINRINGS

Inner chainrings that convert doubles to triples, so you can use your nice road double in the steepest hills or on tour. In 130mm (modern road), 135mm (modern Campy) and 144mm (old Campy) bolt patterns. They all use a 74mm bcd inner chainring. Triplizers work fine even without the inner ring, so if you ride in the hills, prepare for the future. Machined from 7075 T6 aluminum, same as all the expensive ones.

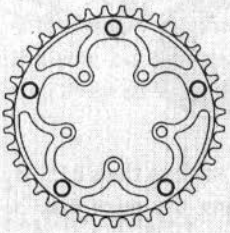


SPECIFY THE TRIPLIZER YOU WANT (MORE SIZES TO FOLLOW):
130 X 39T . . . . 135X 39T . . . . 144 X 42T

MEMBER PRICE: $50
NON MEMBER PRICE: $57

PHONE: (510) 933-7304 • FAX: (510) 933-7305

The Case for Small Big Rings



I think 53t chainrings are too big for most riders most of the time. It would be one thing if they were combined with a 14t top rear cog, but it's never that; it's always a 13t, which gives a gear of 113-inches, or a 12t, which makes an 119-incher— and who can ride that? Unless you race, any gear over 100-inches is NOT all that useful. If you have a 53t with a 12-13-14, you're up over 100-inches in your three highest gears! A smaller big ring is way more useful.

A 49 x 13 is a 101.7-inch gear, and a 48 x 13 is 99 inches—plenty big, don't you think? It also means you can stay in the big ring a little longer when you're on the other rear cogs.

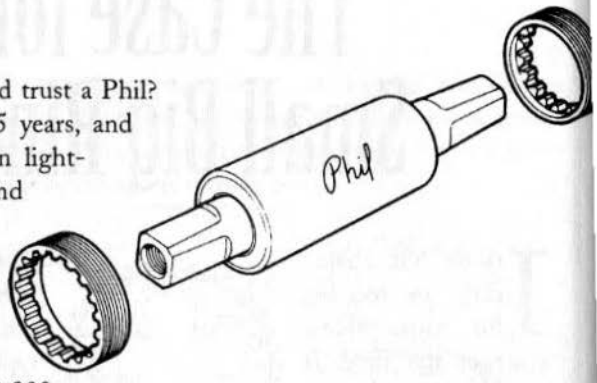
My own sub-50 breakthrough came when I was trying out lots of different cranks and bottom brackets on the Rivendell prototype. I put on a 46x36x26 triple, later took off the 26t because the bottom bracket I wanted to try couldn't handle the third ring, and that left me with a 46x36 double. I went on my normal rides, solo and with Peter-the-Mongoose rep and pal Jeff, and I didn't even think about the 46t ring until one of them brought it up, several rides later. "Oh yeah, I guess I should be on a 52," I said, or something like that. Now I ride a 49 most of the time.

If you have a 130 bcd road crank and you want even lower gears, you can get a TA or Willow adapter middle ring, with another set of holes which accommodates a standard 74mm bcd ring.

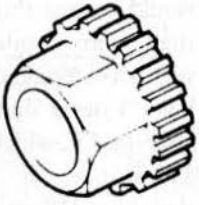
—*Grant*

Bottom Brackets

PHIL WOOD



Who doesn't love and trust a Phil? It's been around for 25 years, and over the years has been lightened, strengthened and refined to its current state of perfection. This bottom bracket is good, under most conditions including rain, for at least 30,000 miles, and Phil will repack it for less than $15. By the time yours needs repacking the price may be up to $25, but then it'll be good for another 30,000 miles. A Phil with a 116mm spindle and stainless steel retaining rings weighs about 290g—less than a 350g Deore XT from a few years ago, and less even than a Campagnolo, but almost a hundred grams more than some of the lightweight and nearly worthless new cartridge beaing models that fail early on.



You need special tools to install Phils, but that's par for bottom brackets. These tools cost less, make installation much easier, and are small enough to take with you anywhere (yes, you still need an adjustable wrench, but you can improvise with toe straps and roadside debris if you're clever; a good reason to have toe straps with you even if you ride clipless). Phils allow you to adjust your chainline, and to set your cranks up symmetrically, both good things. There are three parts to it—the cartridge/spindle unit, and the left and right retaining rings, which hold it in the frame. Our price includes the rings, since the cartidge will flop all over without them; and we stock only the stainless steel ones, which are totally reliable under all conditions, forever. You can put this one on your bike and forget about it. Available in 108, 111, 113, 116, 119 spindles. With stainless steel retaining rings. English, unless you specify otherwise.

MEMBER PRICE: $125 (SPECIFY SIZE), NON MEMBER PRICE: $140
INSTALLATION TOOLS, EACH: $15, OR 2/$25

SUNTOUR GREASE GUARD (WILDERNESS TRAIL BIKES DESIGN)

In the crank bolt is a tiny hole which leads to the bearings. You get a grease gun and shoot grease in the hole, and the good grease goes into the bearings and forces the bad grease out through the seals where the spindle enters the cups. Wilderness Trail Bikes strongly recommends its own "Goose Grease," but we've used other greases, no apparent harm done, we don't sell Goose Grease. Your bike shop may.

This is a professional grade bottom bracket—ground and polished bearing surfaces, best quality balls, fine looking spindle, the works. The only halfway quirky thing about it is that the balls are smaller than the standard 1/4-inch bottom bracket balls. That doesn't mean you can't replace them (not with 1/4-inch balls, mind you; with the same size, when they wear out–not that they will, mind you; but if, you know, in a million miles...) Two spindle lengths: 115mm/292g or 126mm/305g.

MEMBER PRICE: $35
NON-MEMBER PRICE: $50

SUNTOUR SL BOTTOM BRACKET, ITALIAN

These should be called "normal weight," because at 341g, they're right up there with most bottom brackets. This is not a pro-quality part, but it's absolutely decent—the same grade as used to come on $700 bikes back in the early 1990s. "Italian" means it will work only on frames with Italian sized/threaded bottom bracket shells. You have an old Colnago or Bianchi or De Rosa that's pretty much a beater and you don't want to sink a lot of money into it? Perfect! Standard cup and cone design, easily installed and maintained. We got them cheap, we're selling them cheap. Limit two per customer, members only, and we have a hundred.

MEMBER PRICE: $10
NON-MEMBER PRICE: N/A

NOTE TO RIVENDELL FRAME CUSTOMERS:

IF YOU ORDER YOUR FRAME WITH A BOTTOM BRACKET INSTALLED, WE WILL SUPPLY THE CORRECT SPINDLE LENGTH. PLEASE TELL US WHICH CRANKS AND CHAINRINGS YOU WILL USE.

SPECIALIZED BOTTOM BRACKETS

Cup and cone design with an O-ring seal around the spindle. This was Specialized's best bottom bracket from back in the days when bikes came with normal cup-and-coners. English threaded to fit English, American, Japanese, Taiwanese, Chinese frames. It's not quite up to Campy or Superbe quality, but it's close enough, and with proper maintenance etc., it'll last you 10 years at least. Easily serviced with standard BB tools. The taper is the standard 2-degree taper, but the dimension is slightly larger than some other spindles, with the result being that some cranks don't slide on as far. Works fine with Ritchey, Ultegra, old Dura-Ace, most Japanese cranks. A fantastic deal. Specify spindle: 112, 115, 120, 122.5, 125.5. Unsure? Ask!

MEMBER PRICE: $25

NON-MEMBER PRICE: $30

Cartridge versus Cup and Cone Bottom Brackets

In theory, cartridge bottom brackets are superior to cup-and- cone bottom brackets (with loose balls). There's no grease to deal with, no loose balls, no repacking, and if the design is good, the axle is supported better than it is with a ball-and-cone bottom bracket, so there should be less axle flex and reduced friction under pedaling loads. Still, many of them, even $200 models, fail so early. Usually it's the bearings, but sometimes it's the axles.

Meanwhile, the crude and lowly cup-and-cone bottom brackets seem to handle anything you throw at them. Yes, you do have to repack them, but that's easy to do, and you should view it as an

The difference between a cheap cup-and-cone bottom bracket and a good one is the hardness and smoothness of the bearing surfaces. A high quality cup and coner will last at least 20,000 miles when properly maintained. A cheap one will go half that, at least. cup and coners are on the way out. Everyone is using cartridges, because they can be factory-installed with power tools. The problem with cartridge bottom brackets, even the Phils we love, is that they make a central part of your bike—arguably the mechanical heart of it–a mystery. The best quality Japanese spindles are no longer being made, and in time even the cheapies will die off. What we have here are the last of them.

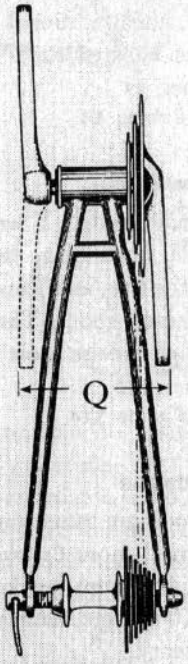
PHONE: (510) 933-7304 • FAX: (510) 933-7305

A Word About Q-Factor

It's the distance between the outside of the cranks at the pedal hole, and determines how far apart your pedals are. I like low Q-factors (below 142 on double; below 153 on a triple), but it is politically correct to acknowledge that personal preference plays a big role, and some people may be better suited to wide stances. Cowboys, for instance.

A low Q-factor: (1) increases cornering clearance; (2) flexes and stresses the frame less; (3) increases pedal clearance in deep singletracks and around rocks; and (4) improves aerodynamics. Of the current cranks, the lowest Q-factors belong to Ritchey—a wonderful crank in every regard.

The very topic of Q-Factor angers some modern crank maker, and lots of these people are my friends. I'm not saying lower is better, only that I (and most of my friends) prefer low Q-factors, more for pedaling feel than for any of the four unassailable reasons stated above. Q-factor took a huge yet fanfareless leap upwards several years ago,

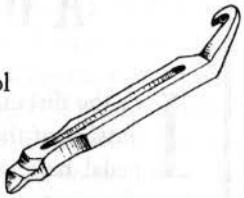


for reasons related to production and materials. If the same change were made in crank arm length or handlebar width, both of which are less consequential, sirens would have gone off all over the world.

Short people are more affected by high Q than long legged riders, so should probably pay more attention.

—*Grant*

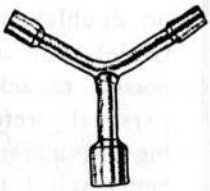
Tools



PARK TIRE LEVERS

Shaped like traditional levers, made in Park-tool blue plastic. Pack of three.

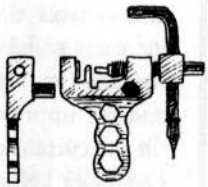
MEMBER PRICE: $3
NON-MEMBER PRICE: $4



8-9-10 Y WRENCH

Everybody needs a Y wrench sometime. We sell two brands, both from Japan: Hozan, the better known of the two, and Tanaka, the one nobody over here has heard about. They are both top quality, hardened and precise tools that last and last.

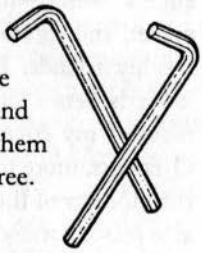
MEMBER PRICE: $13
NON-MEMBER PRICE: $14



RITCHEY CPR-9

Multi-tools are infuriating, pesty little things, but this one saved more than one ride, so we've got to include it. 4-5-6mm hex keys, spoke wrench, chain tool, 8-9-10 sockets, flathead screwdriver, and that's it, that's plenty.

MEMBER PRICE: $22
NON-MEMBER PRICE: $24



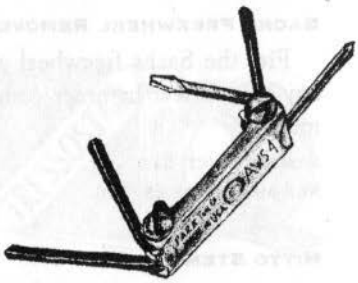
5MM AND 6MM HEX KEYS

These are as generic as they get, and you can probably find them for less somewhere else, because we price everything to the even dollar (for members), and one dollar made more sense than free. We've offered them at this price for many months, and sold fewer than three.

MEMBER PRICE: $1
NON-MEMBER PRICE: $1.19 SPECIFY 5MM OR 6MM

PHONE: (510) 933-7304 • FAX: (510) 933-7305

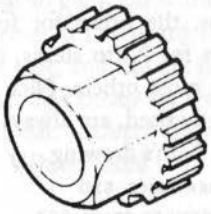
PARK FOLDING HEX/SCREWDRIVER COMBO



This weighty little bugger is always handy. Not as light as the featherweights, but it costs less, every tool on it works well, and it is easier to use. Has 4-5-6mm hex keys, plus Phillips and a flat blade screwdriver. Kim drew it. She's the one sewing up a tire on the cover of the 1994 Bstone catalogue.

MEMBER PRICE: $9
NON-MEMBER PRICE: $11

PHIL BB TOOLS



These are strange beasts in that the only thing they're good for is installing the Phil bottom brackets, and once that's done you won't need them for 35 thousand miles. Unless you change cranks, switch your bottom bracket to another frame, or have another Phil bb on another frame, or have a friend who has a Phil and no bb. Like all Phil things, they're made in the U.S. and built to last a lifetime. Two versions, home and shop. The home model is smaller, more affordable, so you're more likely to be able to buy the two you need to really have fun with Phil bb's. Also, if you want to take one on a tour, it's the only one that makes sense. The shop model costs a mint but is such a pleasure to use that you'll wish you installed Phils for a living.

MEMBER PRICE: HOME: $15 2/$25; SHOP: $50; NON-MEMBER PRICE: $18 AND $65

REMA PATCH KITS

Glueless patches are high fashion, but you still have to abrade the tire, and that's the worst part, anyway. Also, we've had less than 75 percent retention rate with the glueless patches, compared to 99 percent with Remas. Carry both, and if your glue's dried up, use the glueless. Rema patch kits come in a couple sizes; these are the small ones. Kim again.

MEMBER PRICE: $3
NON-MEMBER PRICE: $5

SACHS FREEWHEEL REMOVER

Fits the Sachs freewheel and outperforms any screwdriver/hammer combination on the market.

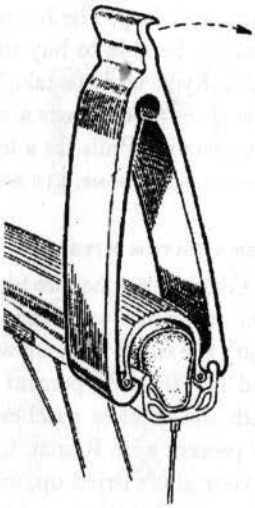
MEMBER PRICE: $13
NON-MEMBER PRICE: $16

NITTO STEM TOOL

It pries the stem clamp open so you don't scrape your bars, and it works so much better than a nickel in vise grips. One side is for TIG stems, the other for forged ones. Made by Nitto for Nitto stems, but naturally it works with most others. Nice tools, however infrequently used, are always worth the space they take. Kim's drawing.

MEMBER PRICE: $20
NON-MEMBER PRICE: $22

FRENCH, EX-VAR TYRE LEVERS



It's a smart design and works so well. Far superior for tire mounting, as it works on a completely different principle which doesn't put your tube at risk. It is bulkier than a normal tire lever, but does that matter? Not to a Carradice, not to a Tool & Tube Tote, not to a jersey pocket, not to a musette, plain or ACME. Developed for skinny, high-pressure clinchers with tight fits, but works on easier tires, too. You can't take advantage of the neat design on fat tires, but it still has two conventional priers, so no problem. Formerly VAR, but still FRENCH.

MEMBER PRICE: $8
NON-MEMBER PRICE: $9

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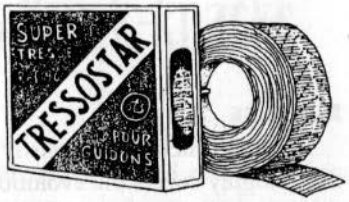
TRESSOSTAR CLOTH BAR TAPE



Good grip, good looks, good feel, weighs just 35g per bar (2 rolls!), it's been around forever. It fades to nice colors, and if you ever get tired of it or wear it out, you can leave it on the bar as the perfect base for any other bar-wrap. Almost impossible to wrap well, but consider that part of your bicycle education. The trick, according to Marc Elliot, is to wiggle and stretch as you go. A double-wrap of Tressostar feels real nice, but if you ever change bars, stems, or brake levers, it takes half an hour to get it off without cutting—and you shouldn't cut it, because you can reuse it. I've heard that French tourists brush a special lacquer over their cloth tape, and can get fifty years use. Maybe we'll have a story on this some time. The boxes are wonderful. Sold two boxes at a time, enough to wrap one bar. Robert drew it.

Specify color or we guess: Blue Black White Red

MEMBER PRICE: $7
NON-MEMBER PRICE: $8

BEESWAX

Use it on threads as a natural Loctite. Mold cable end caps. Rub it onto cables before cutting to prevent fraying. Plug brazing vent holes, make a keeper for small pieces of bike metal. Use it on threads, to prevent vibration-induced loosening. Be creative—once you have a plug-o-it around you'll find you can't go anywhere without it. You'll be known as the neighborhood beeswax person. *Mister Beeswax*, or *Ms.. Beeswax*, depending. We sell it in a cake, but it won't work like that. Break off a small chunk and warm it in your hands until it's soft, then knead it until it's goopy, then knead it more. You have to knead it only once, and it'll be ready for use anytime. 2.25oz plug.

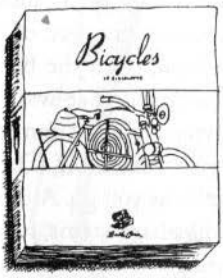
MEMBER PRICE: $3
NON-MEMBER PRICE: $4

PHIL WOOD'S FAMOUS TENACIOUS OIL

So gooey you can use it instead of grease in some places. It's great for cables, or pedals: take off the dustcap, turn the pedal on its side, and run a ring of this around the bearing, spin the pedal, and hope it'll soak in. Phil claims it's good for chains, too, but hop aboard, dirt.

MEMBER PRICE: $4
NON-MEMBER PRICE: $5

Books



BICYCLES

A small, thick-paged, glossy photo picture book that roughly covers the evolution and devolution of the bicycle, with an emphasis on unusual models. Small enough to take with you anywhere. A beautiful book, you'll like it.

MEMBER PRICE: $13
NON-MEMBER PRICE: $13.50

THE AMERICAN BICYCLE

A coffee-table photo book on the evolution of the American bicycle, especially ballooners. Too big to take just anywhere. Gorgeous, especially if you like ballooners. Written by Jay Pridmore and Jim Hurd, curator of the American Bicycle Museum in Chicago, where ballooners reign..

MEMBER PRICE: $30
NON-MEMBER PRICE: $32

A BOOK OF NONSENSE

Edward Lear's magnum opus, first published in 1848. Mostly limericks, but also short stories, a dictionary, and a botany lesson. We offer a double-your-money-back guarantee if you don't. But in that case you have to pay the return postage on your copy. Profusely illustrated, hardbound, a nice edition, with sewn-in bookmark. Every family needs one.

MEMBER PRICE: $14
NON-MEMBER PRICE: $14.50

THE BICYCLE WHEEL

Jobst Brandt's *magnum opus* and *only opus librus* to date, first published around 1979. Wheelbuilding theory and practice. (*Jobst* is pronounced like *toabst*, and *toabst* is not pronounced like *Moabst*.)

MEMBER PRICE: $20
NON-MEMBER PRICE: $21

PHONE: (510) 933-7304 • FAX: (510) 933-7305

Promotional Wear & Knick-knacks

REFRIGERATOR MAGNETS

Seriously strong—they'll hold your children's corrugated cardboard family portraits high and secure. Seriously attractive—cloisonne, with the same logo we use on the name plates (which we used to call head badges). If you are the type who just can't stand to put anything on the refrigerator door, then use it as a paperclip holder, because it's also the world's best that. Colors vary slightly from batch to batch.

MEMBER PRICE: $10

RIVENDELL SHORT-SLEEVE T-SHIRT

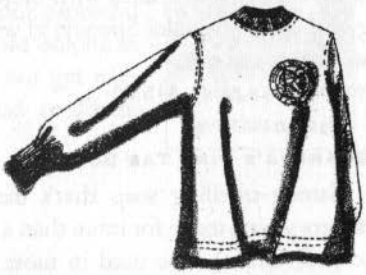
All cotton, unbleached, with a small round Rivendell logo on the front, the downtube logo on the back. Preshrunk. M-L-XL-XXL

MEMBER PRICE: $13 SPECIFY SIZE

RIVENDELL LONGSLEEVE MOCK T

All cotton, unbleached, with a highish collar, slightly heavier fabric. Most people wear them all day, then sleep in them. Nice shirts.

MEMBER PRICE: $21 SPECIFY SIZE



RIVENDELL WATER BOTTLE

White with blue, but if we run out we may go to white with some other color. No large bottles yet—maybe in August.

MEMBER PRICE: 21OZ (STD TYPE) $4; 28OZ (BIG ONE) $5

RONA T-SHIRTS

RONA is an acronym for Retro Grouches of North America, and was born as a result of a column Bicycling's Fred Zarahdnik wrote (in which he coined the term "retro-grouch" scolding those who tend to like the older stuff; or something). Anyway, the shirts have a very attractive logo, a take-off on the old Campagnolo logo, and the colors are

nice, too. Now it has come to our attn: that lately there seems to be a battle forming between people who like old stuff and people who don't, and it is not our intention, with this shirt, to fuel that fire. These shirts are tongue-in-cheek, so wear them with humor! All cotton, assorted colors, usually white or ash grey. Specify a preference but please accept what we have.

M-L-XL-XXL

SHORT SLEEVE: MEMBERS, $13, NON-MEMBERS $15

LONG SLEEVE MOCK T: MEMBERS, $21, NON-MEMBERS $15

CHUCK HARRIS'S REAR VIEW MIRROR

As seen in Playboy 15 plus years ago!

For some rides they aren't necessary. But for commuting or training on roads where the cars aren't so friendly, or carrying your baby in a backpack, or riding a recumbent, or all four at once, a rear view mirror makes a lot of sense. If you haven't tried one before, it'll take a ride to get used to it. I (Grant) go back and forth, and have not reached the point, thank goodness, where I feel naked without it. If you do use a mirror, use one of these! Chuck Harris, derailleur maker, fabricates them out of recycled materials. The arm is a spoke. Truly hand made, so no two can be exactly alike. Sometimes he decorates the back sides with bicycle motifs snipped from magazines. It's a grab bag, be flexible! Specify: a) wire glasses; b) plastic glasses; c) helmet

MEMBER PRICE: $15

NON-MEMBER PRICE: $15.50

GRANDPA'S PINE TAR SOAP

Strong-smelling soap that's dark brown, but it lathers white, made for more than a century. The best soap I(Grant) have used in more than 41 years of washing. It's also the best shampoo—it doesn't build up or make your hair smell like cheap perfume! Most women hate the smell; all men love it. We get more comments about this soap than almost anything else we sell, and once you try this and get used to it, there's no going back. Remember, it's a shampoo, too. Our most popular item, and if you haven't tried it, do your friends a favor. Hefty, 4oz. cake.

MEMBER PRICE: $3

NON-MEMBER PRICE: $4

Sachs's Soap

Richard Sachs, Chester, Connecticutt's finest frame-builder, told me a story about Pine Tar soap. It went like this: "I don't get out much, but last week a friend and I went to the city and saw a movie. As I was sitting there in the crowded theater among, I thought 'wow, these city women sure smell good.' And then I realized it was me! And then I realized it was the Soap." He buys his from us, or at least used to.

GRANDMA'S FANCY LUXURY SOAP

According the box, it soothes, softens, and smooths, for that feeling of elegance. "An unusually responsive skin soap," the box says. "The soap that feels like a lotion," it continues. With olive oil, camomile, and orange essence. Unlike Pine Tar soap, it's not powerful enough to cut through the dried, two-day old onionlike stench in a nervous man's armpits (we do not get nervous around here), but fine for faces and so forth. 3.25oz.

MEMBER PRICE: $3
NON-MEMBER PRICE: $4

PETER WEIGLE'S FRAMESAVER

It's a goop you spray on the inside of your steel frame to keep it from rusting away, and it works great. We sprayed it on a five-inch section of bare metal fork and left it out all winter. The unsprayed metal is orange and crusty—you can peel off the rust with your fingers; but the sprayed portion is as good as new. There are other ways to treat steel, but this is the easiest and probably the most effective. One can will treat four or five frames; three if you're really paranoid. It comes with a fantastic little red straw for poking in the brazing vent holes in the stays and fork blades. Not air shippable.

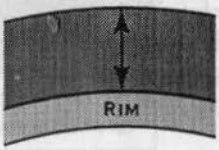
MEMBER PRICE: $12
NON-MEMBER PRICE: $13

Our Favorite Tires

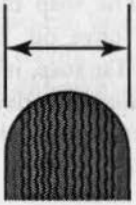
We carry a small selection that will satisfy practically all your needs, and all your practical needs. These are the tires we ride every day. Mostly kevlar beads, to reduce weight and make shipping easier.

26-inch tires were measured on a Mavic 217 rim, which is 22mm wide. 700c tires were measured on a Mavic MA 2 rim, which is 20.5mm wide. Narrow rims add height and subtract width; wider rims, the opposite.

WEIGHTS: We weighed one sample of each tire and took the average. Width, diameter, height: We inflated one of each tire to maximum psi and let it sit for a week, because tires stretch. Then we quickly measured the tire and went back to work. Your results may vary, but not by much.



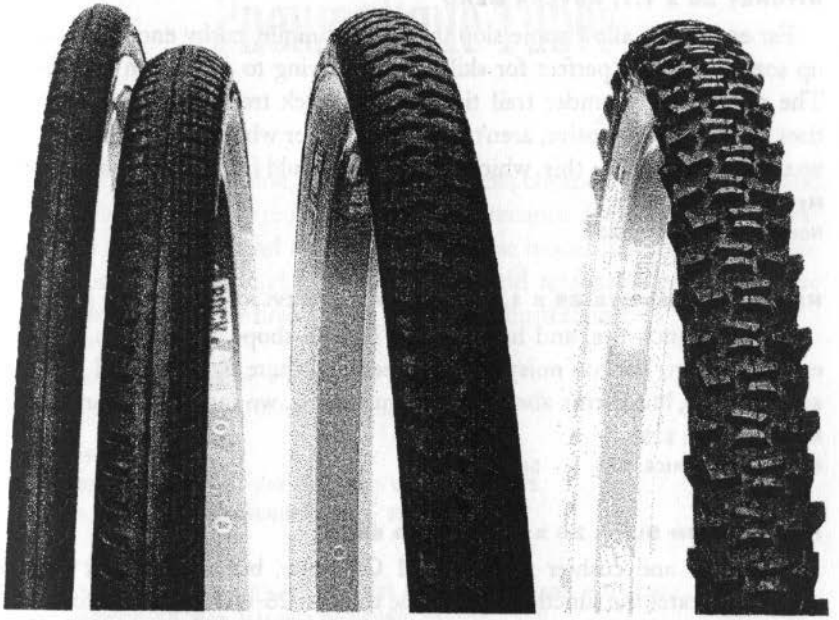
TIRE HEIGHT



TIRE WIDTH

TOTAL DIAMETER

TIRE SPEC CHART				
MODEL	HEIGHT	WIDTH	DIAMETER	WEIGHT
Ritchey Road Force 26 x 1	23.8	25.4	615	240g
Ritchey Crossbite 26 x 1.1	29.3	31.5	630	355g
Ritchey Crossbite 26 x 1.4	35	36.5	641	432g
Ritchey Tom Slick 26 x 1.4	34.3	36.5	639	410g
Ritchey Megabite 26 x 1.7	39.5	40	646	390g
Ritchey Megabite 26 x 2.1	49.3	49.5	665	588g
Specialized Armadillo 700 x 26	24.9	26	680	340g
Ritchey 700 x 28	24.8	25	680	220g



RITCHEY ROAD FORCE RITCHEY CROSSBITE RITCHEY MEGABITE

RITCHEY ROAD FORCE 700 X 28, KEVLAR BEAD

The perfect road tire for 98 percent of your recreational/training rides. It weighs just 220g or so, is fat enough to protect the rim, grips like Dickens, and doesn't seem any more prone to punctures or cutting than anything else out there. Nice tire! Now why doesn't it come in a 700x32?

MEMBER PRICE: $23

NON-MEMBER PRICE: $27

RITCHEY 26 X 1 ROAD TIRE, KEVLAR BEAD

Arguably the best and absolutely the most practical speedy 26-inch road tire that's compatible with mountain bike sized rims. It has the same tread patterns as Ritchey's 700x28, but is a little wider. Don't put this tire on any rim wider than 23mm, or it'll flatten out and you'll lose cushioning.

MEMBER PRICE: $23

NON-MEMBER PRICE: $27

RITCHEY 26 X 1.7, KEVLAR BEAD

Fat enough to allow some slop in your technique, cushy enough to soak up something, and perfect for skilled riders trying to go fast on fire trails. The perfect All-Rounder trail tire, maybe. Black tread & skinwall. Man, tires are getting expensive, aren't they? Remember when a good silk sew-up was $22, and tires like this, which didn't exist, would have gone for about $9.

MEMBER PRICE: $36
NON-MEMBER PRICE: $43

RITCHEY CROSSBITE-26 X 1.1 AND 26 X 1.4 KEVLAR BEAD

Great 26-inch tire, and hard to find in bike shops. Fast, tough, grippy enough in dirt, not too noisy on the street, and quite light. We sell the 1.1 and 1.4 sizes, but there's also a 1.9. If you want it, we can get it, $2 more.

MEMBER PRICE: $25
NON-MEMBER PRICE: $28 SPECIFY SIZE!

RITCHEY TOM SLICK 26 X 1.4 KEVLAR BEAD

Smoother and cushier than the 1.1 Crossbite, but otherwise it pretty much duplicates the function. It must be the best 26-inch tire made for road touring. 410g.

MEMBER PRICE: $25
NON-MEMBER PRICE: $28

RITCHEY 26 X 2.1 MEGABITE Z-MAX KEVLAR BEAD

Ritchey's all-round fat knobby. It works great in most conditions, and if you don't have time or cash to try out all models, just get this tire and ride.

MEMBER PRICE: $37
NON-MEMBER PRICE: $45

SPECIALIZED TRANSITION ARMADILLO 700 X 26, STEEL BEAD

The only steel-bead tire we sell. It has a great, traditional mixed tread, round profile, and for hard everyday use it cannot be beat. The Armadillo refers to the extra tough casing, made of flat mononfilament nylon, which runs from bead to bead. According to Specialized, it makes a casing at least as strong and puncture resistant as kevlar and doesn't wreck the ride as much. Corners great, wears well. Specialized brags loudly about how long it wears, and it seems to. 340g.

MEMBER PRICE: $24
NON-MEMBER PRICE: $27

Pneumatique Tubes

The original suspension, and still the lightest, cheapest, most versatile, and least likely to leak oil or require periodic maintenance. Presta only, since presta valves pump easier and hold air better. These models have a good combination of very light weight, high reliability, and reasonable cost. These are Specialized or Ritchey brand tubes. Spencer's illustration.

700C

BLACK. 97G. FITS FROM 700 X 23 TO 700 X 35.
MEMBER PRICE: $3 , NON-MEMBER PRICE:$4

26 SKINNY

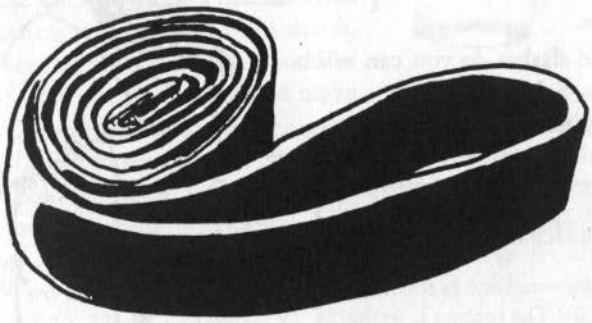
BLACK. 93G. THE PERFECT TUBE FOR TIRES UP TO 26 X 1.25.
MEMBER PRICE: $4, NON-MEMBER PRICE: $5

26 MEDIUM

BLACK. 140G. THE BOX SAYS IT'S FOR TIRES BETWEEN 1.5" AND 2.2-INCHES.
MEMBER PRICE: $5, NON-MEMBER PRICE: $6

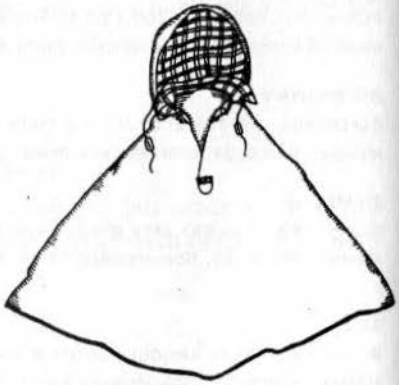
26 FAT

BLACK. 168G. YOUR BASIQUE MOUNTAIN BIKE TIRE TUBE. FOR BIG TIRES.
MEMBER PRICE: $5, NON-MEMBER PRICE: $6



Carradice Rain Gear

Waxed cotton is the traditional fabric for rainy weather, and has been made in England and New Zealand for years. It smells good, it works, and there's nothing to delaminate, so it lasts for years. When the time comes to retreat it, that's easy, and we have the goop. Carradice makes a rain poncho, rain pants, and a rain jacket, and we sell them all. Everything is dark green, with strategically located reflective strips so you don't get smacked.



PONCHO

One size fits most. Curiously, this outsells the jackets four to one. Inner ties keep if from flapping up.

MEMBERS: $45, NON-MEMBERS: $50

RAIN JACKET

One pocket. S-M-L, and the large fits to 6'3". Nice enough to wear as a day shell in good weather, too.

S-M-L

MEMBERS: $80, NON-MEMBERS: $86

RAIN PANTS

With side slashes so you can reach your pockets. S-M-L

MEMBERS: $60, NON-MEMBERS: $63.45

— Does Waxed Cotton Work? —

Of course—and it has for more than 75 years! The coating is *in* the fabric, not on it, so there's nothing to peel off or delaminate.

PHONE: (510) 933-7304 • FAX: (510) 933-7305

Wool Clothing

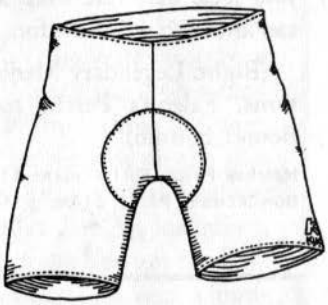
LONG SLEEVE WOOL JERSEYS

Sergal. Traditional, wonderful, Italian long-sleeve all-wool (Superwash, even) cycling jerseys. Knit on a tube, like a T-shirt, the old way. Ribbed collars and cuffs, long arms and body, three rear pockets.

SIZES 3-4-5-6 (M- ML- L - XL)
GREEN WITH MAROON STRIPES ON TRIM OR
MAROON WITH GREEN STRIPES ON TRIM

MEMBER PRICE: $77
NON-MEMBER PRICE: $80

WOOL SHORTS (KUCHARIK)



Kucharik has been making cycling clothing since 1934, and these are the best-fitting ones ever. They still ride up like the wool shorts of old, but not as much, and most importantly, they don't ride down or give you a ring around the thigh, or that "too bad I have to pour myself into a rubber suit to enjoy the sport I love" feeling, either.

If you like the idea of wool but have had bad experiences with the old wool shorts, try these, because they're better. If you like the idea of wool but haven't had the nerve to try them or haven't found a source, get that nerve and here they are. The only thing I'd like to see changed is the location of the front of the chamois. I think it could be moved forward a hair, but this is more apparent off the bike than on. These are Superwash wool with a fake chamois, and even though they aren't supposed to shrink, they seem to fit better after the first washing. Want a real leather chamois? Add $10 and wait a week.
S: to 29w; M 30-33w; L: 33-36w; XL: 37-40.

SPECIFY SIZE.

MEMBER PRICE: $58
NON-MEMBER PRICE: $59

WOOL TIGHTS

All Superwash wool, no chamois, reinforced crotch, knit cuffs with green and maroon stripes. The wool has a good hard knit that ought to last for a long time. So much nicer for cold weather wear than lycra tights. Made in Italy by Sergal, woolmakers for a long time.

SIZES: 3 (MED) 4 (LARGE) 5 (XL) 6 (XXL)

MEMBER PRICE: $77

NON-MEMBER PRICE: $80

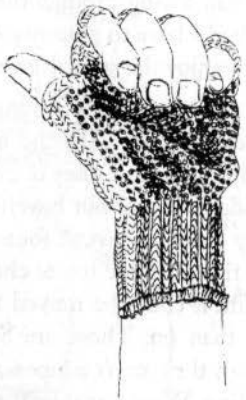
WOOL GLOVES

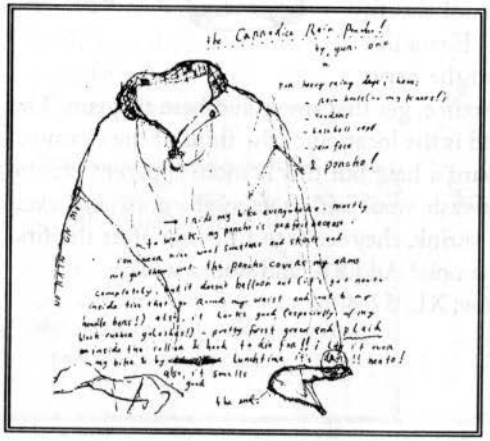
The perfect solution for temperatures down to about 40°. Available with full fingers or half. The rubber dots on the palm get mushed flat and smeared pretty early, but the gloves and your grip don't suffer for it. Eighty percent wool, the rest something else—seems like racoon hair and acrylic. Made in the USA, and possibly available at your local hardware store for less than we can afford to sell them for.

(Right: Legendary Medieval hand positions: Falcon's Perch, top; Homeward Bound, bottom).

MEMBER PRICE: FULL FINGERS $12 2/3 FINGERS$12

NON-MEMBER PRICE: $14 & $14





Why Wool Doesn't Stink

There are two kinds of sweat glands—Apocrine glands, the type found in your armpits; and eccrine glands, the type found elsewhere. Eccrine gland secretions don't smell, and thank goodness. But apocrine gland secretions are released through the same pores as the oil glands, and when bacteria on the skin's surface feeds on the fats in these secretions, run for cover and plug your nose!

When this happens, the last thing you want to do is trap the moisture on your body and in your clothing. Unfortunately, that's exactly what happens with most synthetics—even the high-tech superbreathable ones. But not with wool.

Wool is "hygroscopic," which means it easily absorbs moisture. Although other natural fibers have this ability, none beats wool. Moisture passes through wool and is released into the air instead of remaining on the skin. Wool absorbs about 30 percent of its weight in moisture, so you don't feel wet or clammy. Nylon absorbs a measly 4.5 percent, and polyester absorbs a pathetic 0.4 percent. With these fibers, moisture remains on the skin and the surface of the fabric, giving that hungry bacteria a veritable feast. You get the leftovers—sticky skin and a pungent aroma. A fabric's ability to wick moisture does not make it immune to this, as anybody who has sweated in the modern high-wick fabrics, or ridden a bike behind someone wearing yesterday's jersey can tell.

Mary Stipe is a freelance writer specializing in textiles.

About This Catalogue

MANY ARTISTS CONTRIBUTED:
Chris Fiorini drew at least the Simplex rear derailleurs, Campy aluminum clips, and old-style SunTour bar-con shifters. Robert Kurosawa drew at least the Carradice bags, Campy shifters, tube tote, Tressostar tape, and DirtDrop stem; George Retseck drew at least Robert's hands on the Moustache H'bars, and the Q-Factor diagram; Dan Rebour drew the Brooks B.17; Spencer Chan drew at least most of the Nitto stems, the Mathauser shoes, SunTour downtube and Accushift bar-cons, MKS pedals, Cyclone brakes, Suntour Superbe cranks, the inner tube, and the wooly gloves; John Segal drew the Richard Sachs taking a shower. Kim Young drew the ALE straps, Rema patch kit, Book of Nonsense, Park Multi-tool, the water bottle; Rob Catalano drew the Bicycles book, Ritchey cranks, Brooks proofide, and the CPR-9 tool ; Corinna Chan drew the Rivendell Mock T; Yuri Ono drew the wool jersey and the poncho with writing all over it; Pal Jeff drew the other poncho, the Kucharik shorts, and the rain jacket. Other illustrations were borrowed from manufacturers brochures—Nitto, Phil, SunTour, Ritchey.

Rob Catalano designed it and laid it out.

We printed 4,500 copies and immediately distributed 2,800 of them to members. Printing cost about $4,000.

Rivendell employees, friends, relations, Hollywood stars and starlets, political figures, and even even those in a position to extort or blackmail pay the same prices as shown in the catalogue. We don't sponsor a race team (not that there's anything wrong with that), so your purchases do not support anybody but yourself and Rivendell (not that there would be anything wrong with that, but prices might have to increase).

If you'd like another copy of this catalogue to give to a friend, please say so on an order, and we'll include it. If you'd like twenty, we'll try to send them.

Thanks. —The group.

CAN'T YOU FEEL THAT SUN A-SHININ?
GROUNDHOG RUNNIN' BY THE COUNTRY STREAM,
THIS MUST BE THE DAY THAT ALL OF MY DREAMS COME TRUE.

—*Bob Dylan, New Morning*

Rivendell Bicycle Works
1561 - B Third Avenue
Walnut Creek, CA 94596

FOUR DOLLARS