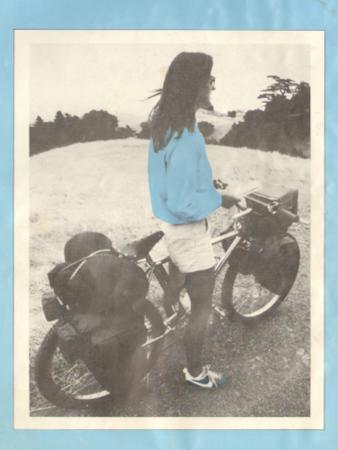
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Wende Cragg pauses at Ridge Crest on Mt. Tamalpais in Marin Co., California, Photo by Erik Koski



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- **UNCOMMON OPTIONS** Last Chance for Humor.

One of the reasons for our existence is to inform the public about cycling equipment for our sport. A common theme in our mail is: "I'd like to see some bike tests." Good idea. All the other magazines have bike tests. But wait a minute. All the bike tests in the other magazines sound suspiciously similar. You know, "Very responsive, with quick handling. I loved the way it climbed, and when I got out of the saddle it just jumped!" Gush, gush, But what does that tell you? About the only concrete information you get is the price, subject to change any time. Or they say, "I liked the neat pedals." Are we testing pedals or bikes?

The truth is that bikes are very subjective. Notwithstanding the complicated series of measurements and adjustments that can be used to construct the optimum race machine tailored to a specific athlete, most of us drag our unique bodies into bike shops and select from two or three mass-produced options. So what feels one way to a person with long legs and short torso will feel different to a person of the same height but with shorter legs.

Already it's getting complicated. Now here's another variable. Your reviewer, whomever he or she may be, must be an accomplished cyclist, right? So that person must ride a lot. No doubt he or she rides the same bike most of the time. Here's the effect. The less the test bike feels like the tester's own bike, the less he or she will like it. (Axiom #212)

Most manufacturers will look over a bike carefully if they know it's going to be tested. Consequently, test bikes are not always representative of what the customer sees. Because of deadlines, in other cases the tester might be given a prototype, and these are often hand made and different from the manufactured model.

While we're talking bad news, here's more. What are the factors we are looking for? Durability is certainly one, but that is pretty hard to test for in a short time. We could tell you the price, but that isn't hard for anyone to find out. Performance is indefinable in any but the vaguest terms. There are numbers that can be used, but what do they mean? Frame angles say nothing about handling. By now you must be starting to appreciate the complexity behind the simple question, "Bike test?"

Comparing equipment is one venue. But that has limited application, because there is only so much in the way of drive train stuff on mass-produced bikes, and they all tend to use the same equipment in any given price range.

By now you have the idea that we don't want to test bikes. We do, but not in the traditional way. We think that the real test of a bike is the way it stands up in use, under the conditions people actually use them in. For now we'll discount performance, because in fact most people swear by the performance of their own bikes, whatever they may be. (Also, if the bike doesn't perform as expected, are the expectations the reviewer's or the public's?) Most people, though not all, would select durability over performance.



Some issues are out of print and out of stock, never to be seen again except by the fortunate few who subscribed early. We do have available copies of some of our back issues. You will be relieved to know that the price indicated includes postage, which costs us more than the bulk rate we use for your subscription copy. Outside the U.S., add \$1.50 (U.S.) for each copy. Order form on page 22.



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NOVEMBER-DECEMBER 1984 (An Elder of the Off Road Tribe. Mountain Bikes in Mountain State Uncommon Options, Point Reyes Spolety, TechTips, NCRRW



As more and more people purchase mountain bikes, Murphy's Law will apply with increasing frequency. Murphy's Law, for the unfamiliar, is that anything that can go wrong will go urong. We thought we had seen every way to wrick a bike, but our readers are more creatise than we have given them credit for. They have also come up with intriguing solutions to their problems in some cases, but in others they just ask us. Ob well, that's what we're here for. Here are some contributions from our technical audience.

DEAR FAT TIRE FOLKS:

I have only been reading your magazine for a short time, but in that time I have never seen an article on studded tires. I thought I would send you a picture of my mountain bike just in case you have never heard of it before. Since we receive a lot of snow up north here and it usually turns to ice, these tires make riding for most of the year a lot easier. I use my bike for work, so the studs on my tires have worn down from the pavement, but they still provide adequate traction. Maybe this will help some people who want more traction on snow and ice. If they want to know how I got mine done they can get hold of me.

Shannon Sonmor 180 Tucker Cres. Saskatoon, Sask. Canada S7H 3H9



DEAR FELLOW FAT TIRED PERSON:

Seeing the letter from reader Malcolm Nelson caused me to reflect on my four years of bike busting on my vineage Ritchey. (Is it healthy to love a bicycle, Doctor?)

Gary Fisher told me the most important thing for a mountain bike to do is get you out of the mountains, i.e. not to strand the rider forty miles from home or car. So far my bike has always taken me home. though sometimes by the skin of its gear

I ride hard in the mountains and am about twenty-five pounds heavier than Alabaman Nelson, depending on how much water and food I am carrying. I have had the jolting experience three times of breaking chains on uphills although I was in or near the saddle each time and crotch did not meet top tube. In each case the chain broken was of the Sedis Sport variety. I too have taken to carrying a chain tool and have switched to Shimano Uni-Glide chains with comparable mileage and stress and have yet to break one.

Years ago I put some Flat Proof sealer in my tubes. I used about half the recommended dosage and spun it around thoroughly. I am still using the same tubes-through several sets of tires-and have never been stopped by a flat. When I have bad punctures they go down slowly and I have always made it home with no problem. After being inflated a couple of times at home they have always sealed without putching and I just keep riding. I feel the small weight penalty is little to pay for all the miles of flat-free riding, and I no longer carry parches, spare tube and tire irons on anything but long expeditions. I still carry my frame pump, though it has been unused for so long it may be welded to the

The rails on three saddles have given way under me, two Avocets and one San Marco. I buy saddles with steel rather than alloy rails and the weight difference is truly insignificant, but they still break. I have also managed two seat-post fractures, one SR Laprade and one Avocet. Both broke around the bolt holes. In all cases I rode on

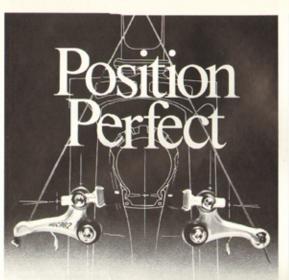
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OFF-ROAD RACING in the United States has gotten off to an encouraging start, with enthusiasm snowballing each year. The 1984 season saw great improvement over 1983 in both quality and number of races, and the caliber of athlete and level or corporate interest are follow-ing suit. The media have already taken note of this independent new breed or cycling with glossy photo spreads in WIN-MING magazine, frequent newspaper articles, an article on the Gant Challenge in SPORTS ILLUSTRATED, and perhaps soon we will appear on national television. Classic bicycle racing has taken years to achieve such recognition and may never have accomplished it without such pio-1 neers as Jacques Boyer, George Mount, and Greg Lemond cracking the international ranks abroad and a hometown 1964 Summer Olympic Games with all the lonmer Olympic Games with all the lo-

cals making good. Off-road racing is spreading at an incredible rate, and the development must be planned carefully and immediately. Those of us seriously involved with offroad racing, whether as rider, promoter or sponsor, have a responsibility to the sport to see that it does not develop bad habits in its infancy that will trouble it lifelong. We are fortunate to have responsible, realistic and idealistic Glenn Odel as the guiding influence that he is as president of the National Off-Road Bicycle Association (NORBA). But an unsung and perhaps more influential position is that of race promoter, and at this crucial point in the development of our sport this sector is dangerously lacking. The well-planned. non-confining guidelines laid down by NORBA are rendered ineffective by riders and promoters alike who are unfamiliar with or have no regard for these guide-lines. Now is the time for riders and promoters to learn the letter of the NORBA rulebook and more importantly to understand the spirit of those rules.

Instances of poor officiating by promoters and rule breaking by riders have been common during the 1984 season. Some of the cases have been due to ignorance on the part of the promoter or rider, but worse have been the times when the officials knew the rhetoric of the NORBA rulebook but completely missed

the intent of the rules.

MY FIRST EXPERIENCE with inept. promotion followed by no reconciliation was at the Quincy Huff in Puff race. Due to poor course marking and poorer marshalling, nearly all of the serious competitors became lost at one point or another, sometimes gaining and sometimes losing places. At some of the crucial intersections the course marshalls stood meekly and watched riders go in different directions. After the race the promoter was nowhere to be found for over an hour, and when he finally did appear he excused the whole problem by blaming it on his inexperience, and refused to adjust any of the results.

Soon after the Quincy race we had an-

Call to Perspective other full-scale fiasco in the Fresno qualifier of the Suntour Series. Again most of the serious competitors were lost at one point or another. Again nothing was done afterward to render fairer results. However, in Fresno the eventual consequence was much greater, with Ned Overend nar-rowly winning the Series partly on the basis of points unfairly awarded in Fresno. Later in the Series, the Bend, Oregon stage was won by a rider who had performed an illegal bicycle switch with a teammate during the race. The rider and his teammate were surprised and furious,

and felt cheated when they were disqual-

ified. The switch was not intentionally in

violation of NORBA rules, but riders trav-

elling the country to race off-road should

be familiar with the brief set of rules they

have agreed to obey.
TWO OTHER ILLEGAL BIKE switches

took place during the Gant Challenge. In Seattle, Canadian star Alex Steida suf-

fered a bad crash and was momentarily

knocked unconscious. When he regained consciousness and was unable to continue due to a broken steerer, the cry went out for another bicycle for Steida. He quickly got one. The announcer made Steida out to be heroic for fnishing fourth on his teammate's bicycle, mentioning re-peatedly that Steida's own bicycle was in pieces. Poor, dazed Steida was then disqualified when a protest was filed by Oregon riders. Here is a case where the promotion first complimented, then disqualified a rider for the same act due to a complete lack of knowledge of the rules.

Only two weeks later a similar situation occurred in the Chicago Gant Challenge. Steve Tilford badly damaged his bicycle and wanted to switch. His support person thought it prudent to ask permission to ask the promoter for permission to go onto the closed course and give Tilford another bicycle. The promoter gave permission and the news came loudly over the P.A. system that Tilford had broken his bicycle and was being handed a fresh one. Tifford went on to secure a top place. When he was protested after the race for the bike switch, the promoters had never heard of such a rule, although the NORBA banner was proudly displayed on the course. After some heated discussion the officials made their final decision to relegate Tilford They justified it by saying that, "There were only seven guys out there who were really trying." I think that the other sixty or so were trying. I also think that Roger Marquis was trying, but he was bumped out of fourth place overall in the Gant Challenge by the thirteen points Tilford "earned" in Chicago.

ANOTHER POOR DECISION was made by the head official at the New England Fat Tire Two-Day Stage Race. The decision concerned a re-ride for John Loomis in the observed trials stage. Again it was a case of a rider asking to violate a fundamental rule and being granted permission by the official in charge. Loomis felt that his poor score on his first attempt at the five trials sections was a result of his being rushed under the time deadline. When the time deadline was extended, Loomis felt that his rushed first attempt at the sections was unfair, and in fact it was, but the situation was the same for everybody. However, by being the first to ask,

he was the one and only rider allowed to throw out his first set of scores and make two new attempts at the difficult sections. In effect he had been given a practice run on all the trials sections, which is illegal under trials rules. This gave him a major and unfair advantage over the rest of the field. As expected, his second and third attempts were much better, and they moved him into the final overall lead by a slight margin. I was upset with the fact that my score had been beaten in such a way. and protested the decision in cooperation with the other riders. My protest and the suggestion that Loomis' third score be abrogated in order to make his effort consistent with that of the rest of the field, was thrown out and even ridiculed by the promoter. Even a slight understanding of the rules for observed trials would make such a decision unthinkable.

Poor decisions and poor education of riders and officials must come to an end. or the outcome will be disillusioned sponsors, unhappy racers, and a general image of illegitimacy for off-road racing. My Specialized team returned from New England with second, third and fourth places instead of first, second and third, forcing Specialized to seriously question the thousands of dollars spent sending a team across the country only to be beaten by an officiating error. Other sponsors were also unhappy, their riders returning with disqualifications or losing to the officials rather than to other racers. We cannot afford to cheat our sponsors out of their money or we will make our sport useless to them. All of these problems stem from a serious ignorance of NORBA rules, a problem so easily cured! The Rockhopper, Repack Downhill, and the Suntour Championship race are prime examples of races whose promoters have taken the little time necessary to understand what off-road racing is about and to plan and officiate their events accordingly

NOW IS THE TIME for riders and promoters to take a step back and think about the long-term effects of poor understanding of the sport. Now is the time to learn from the mistakes we made in our inaugural season. If off-road racing is to establish itself as a legitimate sport carrying serious athletic credentials, we have a responsibility to live up to the ideals of good promotion, good officiating and good racing.

Editor's note: Gavin Chilcott is one of the finest off-road racers in the U.S., in 1994 a member of the Specialized "Team Stumpjumper." The two rules whose interpretation he found inconsistent are as

Section 3, Number 3: Racers must complete the entire course on the same bicycle as started with.

Section 8 (trials), Number 11: ...practice in any of the sections before or during the event is strictly prohibited and will result in disqualification.



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NORBA Rules: Who Needs 'Em?

by SeeKay

Any discussion of violations of NORBA rules should also include a discussion of what those rules are and why they were made.

The founders of NORBA, who wrote most of the rules now in use by that body, had several ends which they wished to accomplish in formulating a set of standard race rules. First of course, is the desire to keep competition fair and fun for all participants without the complication of a set of "simple" rules in twelve thick volumes. In contrast to the international rules governing road racing there were no restrictions on what kind of machinery could be used; the international rules discourage innovation, while mountain riders are interested in developing better equipment as part of their competitive urge. Another purpose of the rules is to make racing as much like recreational riding as possible, and also to eliminate the advantage of support teams for some riders while others go without; accordingly, rules were adopted that require competitors to ride the entire distance on the same bike, accepting spare parts or tools only from other riders. These rules also emphasize that the bike must be capable of completing the distance, which reinforces the idea that racing is in part an effort to improve the equipment used.

The NORBA rulebook is a riny volume whose contents would fit on four or five typed pages, Most of the rules are procedural, having to do with display of NORBA materials, sanction fees, and so on. The rules that apply to the competitor could easily fit on a single page, and there isn't much excuse aside from illiteracy for a rider not to know them.

The people who put these rules together didn't care much for rules themselves, but they realized that a few would be necessary in order for races to be relatively safe and fair. As the sport develops, more rules may be added, as a section on observed trials was recently added to the NORBA rules, but it is unlikely that the NORBA rules will ever approach in complexity those of any other major sport.



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FAT FEEDBACK Continued from page 5

home, though riding with the saddle in your hand is a little awkward, especially if you forget and sit down. That smarts.

I once crunched a fork in a high-speed accident, yet managed to bend things around enough to get the front wheel back on and ride slowly home.

The culminating bust came this month when I was pushing up a hill in the standing position and the down tube snapped. Broke that sucker clean in half. Bisected it. My triangle became an inverted "V." How do you ride home with just derailleur cables for a down tube? Very gingerly of course, but I got home okay and in the saddle most of the way.

Well, the bike has given me a great four years of hard pounding. Virtually all my riding has been off road, and mountain biking has "made" my year for the last four in a row. Tom (Ritchey) is giving me a real bargain on a new frame.

Some precautions present themselves from my experiences:

- 1. Buy quality if you can.
- 2. Be skinny.
- 3. Be prepared for makeshift repairs to get you home. Example: a chain tool is easily carried in the pocket, but a bike without a chain is a pretty useless piece of equipment. Except on downhills,

I can't wait for year number five. Clyde Grover Draper, Utah



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SIZE	GRAM WT
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27x199	435 g.
26x1.75	529 g.
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knobbies, the TRI-CROSS was refined with the aid of a computer for both 10 speed frames and fat tire bikes.

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In fact, the TRI-CROSS has been chosen by members of the US National Cyclocross Team for use in the World Championships in England this year.



My buddy John and I have been riding off-road for about three years in Southern Louisiana. We have blazed out a good fifty mile radius from where we live and are now taking road trips looking for more trails. We're heading for the Smokies this

John and I are both on our second bikes, having trashed out our first. We are apparently the only serious mountain bikers. in our area. Because we're close to sea level down here, the rivers clog up and reroute themselves after a period of time. In order to prevent this from happening the Corps of Engineers dredges these rivers and creeks and deposits the mud on one side. After awhile the "spoil bank" becomes hardpacked and smoothed over, leaving us with miles of roller coaster. It helps if a motorcycle has gone over it a few times; it has to be some of the best riding in the world.

We thought you might be amused at pictures of my last bike. It was a Ross Force One; I had removed the paint in its final days to speed up its death. Among its list of casualties were a dozen or so head sets (including a Campy), a Brooks Prosaddle (supposedly indestructible), and I lost track of how many derailleurs it are.



So if you get down this way, look us up. We've got trails for days. Jody Taylor

400 E. Club Deluxe Road Hammond, LA 70401

DEAR MS. CARAMAGNO.

Thank you for your letter, I am a subscriber of your magazine and enjoy it very much. The gear chart in the latest issue finally forced me to take a critical look at my gearing which resulted in a new chainwheel and a cluster change. I thank you for making the job easier (the component manufacturers should really thank you!).

I am enclosing a brochure on the National Trails Council in case you haven't received one yet.

Some folks still argue with me that mountain bikes can do a lot of physical damage to resources. Their point is usually oriented around rutting and channeling,

and otherwise contributing to increased trail erosion. I won't argue their basic point that damage does occur, except that in relative terms (compared to horses for example) the damage is insignificant. Some damage even occurs from lug soled boots! The damage has to be seen in perspective.

Social impacts, on the other hand, are not only very real, they are probably as great from mountain bikes as from anything else one might encounter on a trail except motor vehicles. Even at that the "startle effect" from silent mountain bikes is something motor vehicles don't concribute.

Widespread awareness of NORBA's "Cyclist Code" by both mountain bikers and other trail using public will go a long way toward minimizing social impacts. The more familiarity people have with mountain bikes and the folks that ride them; and the converse, the more sensitivity bike riders display toward other users' values, the fewer social impacts will occur. Polarization and the refusal to communicare is the worst thing that could happen. Nothing is ever perfect, but there are many examples (particularly between snowmobilers and x-country skiers) where supposedly enemy groups hae gotten together, agreed on some of the values they share. agreed to disagree on others, then devise things to do between them to minimize the instances of conflict. Mountain bikers can do the same thing.

The American Motorcyclist Association and the Motorcycle Industry Council have been defusing public land managers for a number of years by sponsoring seminars during which managers actually learn how to ride an off-road motorcycle (responsibly and safely. I might add) and thereby lose some of their fears and misapprehensions about the off-road motorcycle activity and how to manage it.

NORBA and perhaps the Bicycle Federation (unless a manufacturer's association exists) might do something similar for public land managers. I guess I'm implying that the social impact on managers needs to be dealt with on a priority basis first, because once they are taken care of, their management actions can very much speed the reduction of impact on other trail using public.

Richard H. Spray Ass't Dir, for Recreation and Wilderness (vocation) USDA, Forest Service, Southwestern

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Board of Directors (avocation) National Trails Council



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The event schedule for 1985 isn't impressive at this time of year, but if last year is any indication, by summer it will fill two pages.

March 10; race: "Reseda-to-the-Sea (and back!)," Los Angeles, CA Contact: Victor Vin-cent of America 818-VVA-3300

April 27, 28; race: "Spring Runoff," Sacramento, CA Contact: Bob Edwards 916-739-6931

June 2; race: "Whiskeytown Downhill," Redding, CA Contact: Gary Larson 916-243-7101

June 9; race: "Suntour/Winning Pacific States Series" Los Angeles, CA Contact: Brian Skinner 213-372-2131

June 16: race: "25-Miler," Winthrop, WA Contact: Ted Reese 506-996-2411

June 16; race: "Pacific States Series" San Luis Obispo, CA Contact: Brian Skinner 213-372-2131

June 23; race: "Pacific States Series" Eugene, OR Contact: Brian Skinner 213-372-2131

June 30; race: "Pacific States Series" Seattle. WA Contact: Brian Skinner 213-372-2131

July 7; race: "Pacific States Series" San Francisco, CA Contact: Brian Skinner 213-372-2131

July 21; race: "The Great Flume Race" Incline Village, NV Contact: Max Jones 702-832-0726

August 4; race: "75-Miler" Winthrop, WA Contact: Ted Reese 506-996-2411

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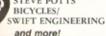
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In the wintertime the competition news is a listle slim, but here are a few reports from our colleagues in far-flung places. Let us commence by flinging ourselves to Quebec . . .

Festival du Velo de Montagne

Parc du Mont Ste-Anne, Quebec · September 15-16, 1984

southern region of the big French province of Quebec, Canada, right across the northern borders of Maine and New Hampshire.

Parc du Mont Ste-Anne is one of the favorite scenic resorts for recreational fun- line after thrashing through eight laps of seekers of all ages in both winter and summer. Apart from ski-jumping. Nordic/ an experience for all those newly baptized Alpine skiing, and so on, Mont Ste-Anne Fat Tire worshippers! On with the Experts! is becoming the hottest spot for Fat Tire fanatics in the Quebec City area. So it was a gruesome fifteen laps of hell riding. They only appropriate that the first-ever mountain bike festival in Quebec was staged at Mont Ste-Anne!

About 45 riders participated in the fun- it's time to call it a day, eh? filled but sometimes terrifying weekend of dirt and mud, as cyclists showed their stuff in three different events.

The Observed Trials took place on Saturday. Riders were tested on their abilities terrain, enjoyed by all who participated. to balance and concentrate, and their skills at handling and maneuvering their clunkcourse with obstacles such as an eight-inch bles, three-foot diameter logs, and a series a strong bond of fellowship. of oil barrels. Lots of sore bodies and "nice

The criterium was scheduled to start in happy riding, (Ronald Parle) the afternoon, but an unexpected rain

For everyone wondering where Mont storm had turned the course into an in-Ste-Anne is, you can pinpoint it in the stant mud pool. But for all Fat Tire enthusiasts at the festival, the muddier the

Of the eighteen riders who started in the Novice Class, fifteen crossed the finish mud puddles. You can bet that it was quite

Eighteen experienced riders took off for put their bodies to the bearing and only six of the starters survived Mother Nature's contours and crossed the finish line. Guess

The Super Rally was held on the following day to promote the fun side of mountain biking. It was a non-competitive event that ran through some ever-pleasing scenic

La Festival du velo de montagne was a great success. Not only did it generate ers. They went through a loose gravel welcome publicity for a growing phenomenon in Quebec, it also fostered good will wide by eight foot long beam, picnic ta- between participants that has grown into

No doubt you will be hearing from us French Canucks again soon. Until then,

Continued next have







Festival du Velo Results:

OBSERVED TRIAL

- 1. Charles Huor (Mikado)
- 2. Laurent Moreau (Mikado) 3. Sylvain Nickner (Cameleon/Ritchey)
- 4. Chris McMorrow (Fut Chance)
- 5. F. Guy Thivierge (Mikado)

CRITERIUM (NOVICE)

- 1. Serge Brunelle (Cameleon/Rinchey)
- 2. Yves Gagne
- 3. Eric Pegneau (Cameleon/Rischer) 4. Richard Uige
- 5. Jean Triront

CRITERIUM (EXPERT)

- 1. François Paquet (Cameleon/Rirchey)
- Mike Papacons Tantine (Fat Chance)
- 3. Chris McMorrow (Fat Chance)
- 4. Jean Rouleau (Cameleon/Ritchev)
- Sylvain Nickner (Cameleon/Ritchey)
- CRITERIUM (WOMEN)
- Michelle Castonguay (Cameleon/Risches)
- 2. Genevieve Deblois
- 3. Lousie Roy (Cameleon/Rinchey)

Mountain Madness

by John Koenig

Well, our season-final event in history, and we can begin to get on with our normal business. It was a memorable event with an all-time record (for us) of sixty competitors, the most yet for any area mountain hike event. The weekend was accentuated by John Troja who flew down from Boston with the beginnings of our new rental fleet, as well as the prize bike and Debbie's bike (a red and vellow screamer). The FAT CHANCEs were the hot items to ride. Everyone was grabbing and trying, and there was talk in the crowd of folks wanting to trade in their RITCHEYS.

Our congrats go out to Rand Perkins on winning the overall for the weekend and riding off on his new bike: a very deserving guy. We were just sorry we couldn't give away three bikes, since both Derry Walsh and Art Shuster were also very

Results, Mountain Madness Fat Tire Challenge - Helen, GA November 17-18, 1984

30 2	MILE LOOP		
1.	Rand Perkins	2:02:17	M
2.	Art Schuster	2:06:52	M
3.	Derry Walsh	2:09:54	M
4.	James Rasmussen	2:18:54	M
5.	Ty Spencer	2:23:13	V
19.	Janet Lawson	3:06:25	'00'
22.	Emily Howton	3:21:22	100
DO	WNHILL		
1.	Art Shuster	00:59	M
2.	Gary Haynes	1:01	M
3.	Derry Walsh	1:03	M
4.	Rand Perkins	1:03	M
5.	Rob Townsend	1:03	M
27.	Emily Howton	1:13	W
30.	Janet Lawson	1:17	W

Georgia Rough and Tumble

by Mike Tidd

On October 27, 1984, Columbus, Georgia kicked off its first mountain bike weekend, consisting of three events: a fun ride from The Bike Shop, and observed trials at Flat Rock Park (Saturday), and a loop race, also in the park, on Sunday. The weekend attracted eighteen participants and several spectators from the area, all of whom could not believe "Bikes? In the

The fun ride lasted about two hours with seven people along for the fifteen miles of scenic west-central Georgia countryside. The ride covered every type of terrain from paved roads to rock-strewn trails as it followed a ridge line between the Chattahoochee River and a tributary, Standing Boy Creek.

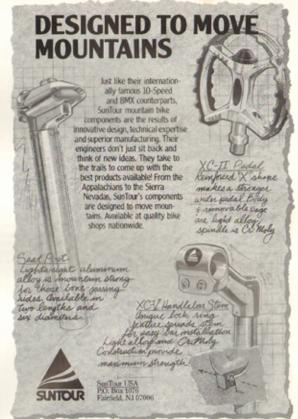
The trials started at 4:30 in the park. The area was ideal for the event, small groups of trees and a lot of rock outcroppings. John Koenig of Mountain Madness in Helen (GA) cleaned every one, while Andrew Wall, also of Mountain Madness took second with only two points off a perfect score. In the novice class Gary Fowler of Snellville (GA) won with 30 points and Jennifer Sullivan of Tallahassee was second with 35 points.

Sunday's loop race was run through a slightly wooded section with rolling hills in the back of the park. The one kilometer lap consisted of three tough climbs; dry weather kept the course from being muddy, and dust was not a problem. The Tallahassee crowd ran away with the first four places. Daniel Fortunas took the 15 km expert race in 53 minutes, while Travis Smith won the 6 km novice event in 28

The event was sponsored by The Bike Shop in Columbus, and Specialized.

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Our printing of the story of Mulga Bill's bicycle in the September/October issue brought an enthusiastic response, including another old poem unearthed by Erik Jensen.

With lifted feet, hands still, I am poised, and head down the hill Dart, with headful mind; The air goes by in a wind.

Swifter and yet more swift, Till the heart with a mighty lift Makes the lungs laugh, the throat cry: "O bird, see, see, I fly!"

'Is this, is this your joy? O bird, then, I, though a boy, For a golden moment share Your feathery life in the air.



Say, heart, is there aught like this In a world that is full of bliss? Tis more than skating, bound Steel-shod to the ground.

Speed slackens now, I float Awhile in my airy boat: Til, when the wheels scarce crawl, My feet to the treadles fall.

Alas, that the longest hill Must end in a vale; but still Who climbs with toil, wheresoe'er Shall find wings waiting there.

Henry Charles Beeching (1859-1919)

Editor's note: This and ated poon is obviously a product of the Victorian era of both poetry and kicycles. The reference to 'lifted feet' refers to the fact that hicycles of this era were fixed-gear, resually without effective brakes (the rider backpedaled to slow dozen). On long downbills the rider would let the bike coast free by taking his feet off the 'treadles.' No wender it was such a thrill; it was impossible to step or even slow down once things get moving? Less enthusiastic riders walked their mounts down the hills, at practice that makes mountain bikers wonder why they even went up,



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Pump The downhill sections of many race courses are the final resting grounds for Tie many bicycle pumps, rattled loose from even the firmest of mountings. Most of us have assumed that as mountain bikers the loss of pumps was just part of our burden, and that nothing could ever be done about the situation.

The solution is at hand, though, in the form of a cute little velcro strap called

Secretary Secretary Second Contraction of the action of the

PumpTie, which not only secures the pump where you normally keep it but also permits you to put the pump in other more creative places. As the manufacturer points out, the only disadvantage to the secure attachment is the fact that it is considerably slower on the draw when the pump is used for personal defense.



Haro 20" Explorer

For little people in the family, HARO DESIGNS makes a little mountain bike with 20" wheels. Not a BMXer, this one has ten gears, mountain bike bars and cantilever brakes. One interesting treatment is the use of an oval down tube. (Photo not available at press time.)

Montaneus

Just when you thought you had seen everything, along comes something like the MONTANEUS, and aluminum frameset with an adjustable head angle. A parented system allows the head angle to be adjusted from 66.4° to 71.6°, at the same time changing the wheelbase from 43.8" to 42.15" and any angle between the extremes is also possible

According to the maker, American Bicycle Manufacturing, the frameset is 20% lighter than a comparable steel frame.

Timbercache

Sportscovers U.S.A. gives us a one-piece combination garment, pack and bike cover that the manufacturer claims can be used thirteen different ways. Only thirteen? These are: saddle cover, cycle cover, waterproof poncho, windbreaker, handlebar bag, saddle bag, poncho for two, entire cycle cover (including panniers), rain fly, ground cloth, "in a pinch" biv bag, "will lock to cycle to parking system for added security." And it only weighs 14 ounces. At least that's what it says here. The mouncain bike model is called TIMBER-CACHE. Color is the ever popular camouflage, material is coated rip-stop, and operation is by little Velcro fasteners and





Mountain Bike Shoe

For several years the Nike Approach and the Nike Lava Dome models have been popular with off-road cyclists, because they are light, but have plenty of traction for scrambling up muddy slopes or over rocks. Now Nike has released a shoe designed especially for off-road use, distributed by Specialized. Called the DISCOVERY, it features a "revese lug" that is indented rather than raised to keep the shoe from catching on the pedal while at the same time providing walking traction. A "cleat ridge" on the sole gives the shoe a convenient place to catch the rear edge of the pedal, and in one of the more sensible bike shoe innovations, a reflector is built in



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TECH



P S

Reader Questions

We may not always have the answers, but we sure know the questions, in part because our readers are contributing unanswerables. Here are a few samples from our mail:

"I have just put \$100 down on a Specialized Stumpjumper SC (I got a good price on it, as the new ones are coming out soon). Do you have a back issue that tests it?...Local bike shop owners tell me that as soon as I ride the ATB, I will give my Trek away! I'm being driven crazy with specs (68 degree vs. 70 degree head tube, fork trail, etc.). Seems some bikes steer like a '53 Chevy I once had, only worse, but they are great at downhills. Climbing seems questionable. Others turn on the proverbial dime, but may kill you going downhill. I hope I did the right thing. Also, everybody seems to be promoting "Plump (26 x 1.50-1.75) Tires." Something to do with rolling resistance. How much difference is there between the two (2.125 vs. 1.75) given the same tread, etc?"

Scott Mickelbank

"Dear Fliers,

Far tire biking in Iowa continues to be a pretty underground movement, but Midwesterners are slow and patient about a lot of things, and far has got to carch on someday. I just moved up from my cruiser to a Ross Mt. Whitney a few months back, and spend pleney of time in its saddle. It's terrifie!

I have a couple of questions/favors to ask you. First, I'm interested in off-pavement touring, and would like to see a cest make on the lineup of mountain panniers and other bags which have recently hit the market. And second, I don't understand Cannondale's claim that the smaller rear wheel on their radical new aluminum bike affords better traction than 26" wheels. Could you enlighten me from an engineering standpoint, and also offer your views on whether some of Cannondale's wild innovations on that bike might represent the wave of the future? Thanks a lot."

Pete Anderson Cedar Rapids, IA

'Hello: Fat Tire Folk

I run a bike shop in Northeast Oregon and do not get a chance to get good information on "mudpups" from those who ride hard! I sell a few ATBs and have had some problems with headsets; just like some of the early BMXers had, bigger bikes and riders make for bigger headset problems!

So I would like to see a good article on headset adjustment and equipment replacement for these abused and neglected portions of ATBs. Keep up the good work!"

Lynn Vaniea La Grande, OR

That's a pretty good list of things to deal with, more than enough in fact. We'll do what we can....

Scott confesses to being confused by the different geometries of off-road bikes, and I'd like to assure him that by being confused, he's in good company. Looking over the geometries used by several of our respected builders we find that frame angles are anything but settled, with bead angles from 68 to 71 degrees or even steeper, and sear angles from 70 to 73 degrees. Some builders use "square" geometry, with head and sear angles similar, and others go for radical differences between steering and

seat angles. What we assume this means is that performance is to some extent subjective, depending on the tider as much as the bike; conversely, it appears that the rider becomes accustomed to whatever he rides, and makes it work.

Although I don't have numbers to back this up, my feeling on tires is that rolling resistance is more a function of the air pressure and the tread than the size of the tires. Obviously a smooth tread will roll on pavement more efficiently; less obviously, aside from the smoothness of the tread, rolling resistance is mostly a function of the size of the "footprint," the amount of surface area of rubber on the ground, and this varies inversely with air pressure. What this means in practical terms is that in coasting contests with road cyclists on sew-up tires, I have ridden away easily on my 26 x 2,125 tires pumped to pressures about twice as high as the manufacturers

Sorry, Pete, we don't have the scoop on the touring gear yer, but that's one of our projects for the next year. Your question Continued next page



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TECH TIPS Caetinard

about the smaller rear wheel is interesting, and while I'm not an engineer I have a few thoughts on the subject. I had two off-road bikes in the early seventies that were 24" frames with 26" forks and front wheels and 24" rears. Both had completely different handling characteristics, but with the jacked-up front, shallow geometry and low rear end they were perfect for radical slides around corners. Not so hot for extended rides, though, because the frames were too small

Cannondale's approach is not particularly new; framebuilders in recent years have built off-road bikes with 26" front and 20" rear, and with 24" rears as well. Jim Redcay of BICYCLING magazine assures me that it is possible to demonstrate mathematically that a small wheel rolls better through rough terrain, but I still don't believe it. (Neither does Jim.) My feeling is that the small wheel drops further into holes and does not roll out as easily as a larger wheel. My impression of bikes with small rear wheels is that the rear end rides very hard (this is not a specific reference to Cannondale, since I have done only limited riding on this product). If there is increased traction, it is more likely a product of frame design, i.e. short stays, than the size of the wheel. Also, with two different size wheels, you need two spare tubes, and some tires are not available yet in both 26" and 24". Nevertheless, at least one (unsponsored) rider did well in competition on a Cannondale--until another bike company snapped him up and provided him with a new bike. An interesting feature of the Cannondale

bike is the caliper brake used on the rear instead of the more common cantilever. One reason for this is that the seatstays are so short and close to the seat tube that if there were cantilever brakes projecting from the frame, the rider's heel would hit them. Not to mention that it's a lot easier to mount a caliper than it is to attach steel cantilever bosses to an aluminum frame.

Lynn's questions on headsets are well taken; headsets get quite a bit of abuse. The fastest way to use up a headset is to ride with it loose. As it rattles back and forth the ball bearings pound indentations into the cup, and it winds up being the "ratcheting" headset. Obviously, inexpensive headsets wear out more quickly, so if you can afford it, get a good one. I use a Campagnolo Record, and in the last year it has needed no service.

There are now several versions of headsets with tapered roller bearings instead of loose balls, and while I've noticed that they can be tricky to adjust, they aren't subject to pitting the races. When adjusting a loose-ball headset, screw down the top cone until it just binds, then drop on the lock washer and screw down the locknut. Here's the secret; tighten the locknut firmly, then hold it still and back off the top cone until the headset turns freely. This should leave the headset firmly locked down and unlikely to loosen. As a last resort, there are now headset locking devices that are kept in place by a setscrew for maximum protection, or you can use a mild grade of Loc-Tite on your locknut.

Dirt eats up headsets quickly, usually the lower race. There are a couple of products out that resist the intrusion of water or dirt, such as a little neoprene seal that stretches around the lower race (you can't make one of these out of a piece of buryl inner tube, because sun and grease quickly ears up synthetic rubber).

Another problem that can occur with headsets is improper fit on the frame. There is apparently no standard inside diameter for head tubes, and some headsets may fir loosely, which will cause problems. Also, if the top and bottom surfaces of the head tube are not exactly parallel the headset will bind at some positions and be roo loose in others. If this is the case, the tube needs to be "faced," which is a process that grinds or cuts down the high spots for a perfectly flat surface at an exact right angle to the tube.

Reader Input

Frank Berto had better look out, because here comes another gearing expert. The following is a verbatim rendering of a letter from Akos Szoboszlay.

"As much as we like to ride on dirt, we are sometimes forced to use ass-fault to get to where we can be free from traffic roar. exhaust fumes, and the main source of danger: cars. You have probably noticed that your mountain bike has a much wider spread of gears than a road bike. This is ideal for dirt riding, which requires frequent gear changing and requires the extra low gearing. On pavement however, you notice that you need a gear between the two that you already have. There is a simple solution to this problem.

It is called half-stepping. It requires changing the middle chainwheel (front gear). (If you only have two instead of three chainwheels, half-stepping is not for you.) In using half-stepping, as you sequentially change gears (as in acceleration from a light

stop), every other gear change requires changing both front and rear shifters. Mathematically, you alternate shifting a +1/2 step (front), with a +1 step (rear) -1/2 step (front). With a little practice you can change both shifters at the same time. In fact, you will have noticeably increased acceleration. This feature is also great for long, flat rides. On most off-pavement rides, the half-stepping feature is not used. so there is no degrediation of performance.

Here's how to calculate the teeth count of your new chainwheel. First, count the teeth on each gear of your rear cluster. Then divide a larger gear by the next smaller gear. You will end up with four numbers (if you have five gears), probably 1.26 each. This is your gear ratio. To insert a gear between any two gears, you will want a gear ratio that is the square root of this ratio. So take the square root, and you will get your new gear ratio, about 1.12. Next, count the teeth in your largest chainwheel. Then divide this count by your new gear ratio to get your middle chainwheel teeth count. Now buy the chainwheel with the nearest whole number. Cost is about \$12."

Akos Szoboszlay, San Jose, CA I couldn't have said it better myself.

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FAIRFAX, CA 94930

Comeuppance?

Most of us realize that the bikes the factory teams race on aren't the ones you can buy, especially if the team is supported by a mass-market manufacturer. These bikes are custom for the rider and are often part of the package it takes to lure a strong rider. So far, so good. But who makes the custom race bikes? In some cases it appears that the mass-produced bike beats the cus-

We won't name names here, but we have recently seen two custom bikes bearing the names and colors of well-known companies, both showing serious signs of poor workmanship (bending, cracks, broken rubing) after only short use. Granted, these bikes were under powerhouse riders. but a frame shouldn't bend in two weeks without any serious crashes, should it? In both cases the bikes were built by factory builders, competent road bike frame builders with little or no experience with mountain bikes. This just goes to show, as we are fond of saying, that you just never can tell.

People Power

1984 was the year when off-road racing surfaced, as far as much of the general public is concertned. When PEOPLE magazine picks up on it, I mean it has to be obvious. Yep, along with the gold medalists and the supersportstars they mention the Ross New England Stage Race off-roaders as people to watch, which just goes to show that you never can tell. Hopefully they'll need a few retired Fat Tire types for beer commercials pretty soon (burp). Excuse me.

AFTA

Mike Tidd reports from Atlanta that there is now an Atlanta Fat Tire Association (AFTA). Thirty riders attended the first meeting on October 16, not all from the Atlanta area. The other bastion of Fat Tires in Georgia was well represented as four of the Koenig (Mountain Madness) family showed up from Helen.

Georgia or Florida riders interested in the AFTA should contact Gina Lee Beshpercor in Atlanta (404-584-5926) or Mike Tidd in Columbus (404-324-4567).

Recall

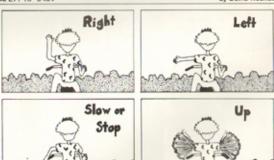
The first release of the new Suntour/ Cunningham roller-cam brake had a problem with the springs being too weak. You can tell easily if you have the old springs, because the ends that push on the brake arm will be straight. On the new, stronger spring the end is hooked slightly where it engages the arm. If you have the old springs tell your dealer or your nearest Suntour outlet and you will get free replacements.

On these brakes there is a slight potential that the carn can pull through the rollers if the pads wear down too much. It's a good idea to adjust the brake so the pad engages quickly, and then to inspect at regular intervals and adjust for wear.

While we're on the subject of brakes, if you don't adjust your cantilevers for wear the pad can dive under the rim, where it does no good. You can't get nowhere without some wear...or is it the other way around? Anyway, adjust those brakes early and often.

SAFETY TIP #404

by David Neuhaus



by Steve A. Martin

Editor's note: The contributor of this piece promises that it is the first of many such riding tips, We can hardly mait.











With practice, tricks may be performed any time the conditions are right, but they are especially impressive while on a "fun" ride with the gang. It should be noted that the slower the trick is performed, the more crowd appreciation it will receive. Also, you should always introduce each trick with a loud, "Hey! Watch this!"

Select a hill or trail steep enough to require the off-and-behind-the-seat descent position. The site should also have an obstacle midway down the selected performance area; a log, sharp drop-off, or rock works nicely. Also required is a secondary obstacle close to and immediately following the first, but not visible from the top, A small, slippery log, a muddy rut or an abandoned fencepost works nicely here.

Having selected the site, begin your descent. (Remember, "Hey! Watch this!") Approach the primary obstacle slowly, and with proper technique, guide the front wheel over the object and back onto the riding surface, preparing for the rear wheel to follow.

At this point you will discover that the secondary obstacle prevents further progress by stopping your bicycle's front wheel and twisting it to the right or left (hence the term "cross-up"). The secondary obstacle does not, however, stop the rider, and you will continue your downhill progress even though the bike has momentarily stopped. Here the rate of descent becomes an important factor in determining the total effect of your trick. The longer the time between the cross-up and body contact with the ground, the greater the effect on the observers.

Correct positioning for this part of the trick is obtained by keeping one hand on the handlebar end nearest you and one foor on a pedal. Shout your favorite four-letter word and extend the free hand and foot wildly in the air in an attempt to regain your balance, similar in style to a rodeo bronc-rider's position.

Several dismounts are possible from the "rodeo" position. Most commonly used is the "Captain of the Ship" dismount, in which the rider goes down hanging onto the bike only to have it attack him upon contact with the ground. An often attempted but rarely successful dismount is the "Paratrooper," in which the rider tries to fling himself free of the bike and land on his feet, only to receive a delayed arrack from the bike as it seeks revenge for the mistreatment. There is also a "Croech-onthe-Bar" version of the "Captain" dismount, but it is not highly recommended.

You should always practice with a friend present. He or she will be able to give advice on your performance as well as pick up the pieces should that be necessary. If you are with a group of friends and someone completes this or any other "trick," respond with loud clapping and laughter, just to let the rider know his efforts were appreciated.

uncomm

ReaderResponse





RON HARFORD'S Option

22 Fat Tire Flyer