THE FASTEST WHEELS AROUND by Malcolm Boyd

April 30, 1977, dawned softly with fog in Ontario, a town in southern California. The place was deserted as Judy and I drove through, munching donuts from a 24 hour Winchell's, the only enterprise open at 5 AM. We were confronted by considerable activity on arriving at the Big O, Ontario Motor Speedway, where we were to act as starters for the 3rd International Human Powered Speed Championships. Trucks and cars carrying all sorts of bicycles and fairings clustered around the entrance gate. An insane tricycle bearing a close resemblance to a giant banana with a headlight wove its way through the crowd. In Southern California, one learns to not be surprised at such things.

Promoted this year by Bud's Bike Shop (of tandem fame) and Shimano, the IHPSC was held for the first time on the drag strip or pit area of the immense oval at Ontario. This proved to be quite an improvement over the Irwindale Dragway where it was held previously. Irwindale was nice except for a bumpy track, faulty loudspeakers which made it impossible to keep track of the developments and lastly, its short length. This latter liability was particularly troublesome to the tandems, which had difficulty accelerating to maximum speed before the traps, as well as trouble stopping before the gravel at the end of the strip. Just ask TCA member Phil Norton of Claremont, CA, who had to build a new set of wheels when his machine overran the strip in 1975. The move to Ontario was well appreciated.

This year's field showed a growing interest on the part of both participants and spectators, with the tandem class growing to a total of 9 out of 51 entries. In a break with the past, this year two of the tandem entries, Northrup University and Carson High School, were of recumbent design; that is, both pilot and stoker lay down to pedal. In Northrup's case, the riders were supine, whereas Carson went prone in the front and supine in the back. Since building both frame and fairing requires more effort than just making the fairing to fit a standard tandem frame, these two machines show that interest in the class is alive and well. Back from 1975 were Norton's Flying Greenhouse, a conventional fairing covering a stripped Taylor Super Touring frame, and one of promoter Jack Lambie's heavy aluminum sided fairings. Returning from last year were a tandem with a half-fairing covering just the front wheel and pilot, ridden by Dick Lewis and Bob Broadley; the unusual Guell "Tritan" tandem, a tricycle tandem powered by four legs and the stoker's arms, this year fully faired; and the Mount Baldy CC triplet.

The first tandem off in the fog was ridden by eventual overall winners Jerry Ash and Gibby Hatton. The pair had last ridden a tandem competitively at the World's. Obviously a team to be reckoned with! Riding a modified Schwinn Paramount tandem, they

garnered a 49.93 mph over 200 meters to squelch the competition by almost two mph. That doesn't sound like much until you try to do it. Their entry into the tandem class marks the debut of IHPSC founder Chester Kyle into the tandem fray, as his fairing was used on the tandem. This pattern repeats that established in 1975 when a Kyle-designed fairing (remarkably similar to the Ash/Hatton design) was run to top honors of 44.69 mph by well known racer Ron Skarin. Unfortunately, I think it also signals the demise of the successful designer/builder/rider in the tandem class. So much for non-specialization! Both of these fairings are aluminum tubing covered with mylar film, and are among the highest surface area to weight ratio constructions used. They look like a wing tip sawn from a 707 and placed on end; they have a teardrop shaped top and horizontal cross section and end abruptly about 3" above the ground.

Of similar design but slightly larger was the Triplex fairing that covered the triplet crew of TCA vice-president Darryl Levesque and two Mount Baldy Cycle Club stokers. The threesome suffered a crash at the start precipitated by Darryl's search for his toe clip. Later examination revealed a broken TA cleat. The team was undemurred and put it together for a second place 48.11 mph. The fairing had been modified from last year by mounting an enclosure for the bottom with only slits for the front and rear wheels. However, the modification looked lumpy and they showed no improvement over last year's all-class top speed of 48.95 mph. Talking to a rather filthy Darryl after the runs showed a characteristic of this and other fairings: they tend to be hot from the sun, humid from sweat and very dusty due to an apparent "vacuum cleaner" effect. The cluster of the triplet, used for no more than six miles was not especially greasy as much as caked with dirt and dust. Not a pleasant ride. The triplet's runs were also troubled by a broken front wheel on its first trip out. Fortunately, the breakdown did not cause a crash.

Third fastest tandem of the day at 47.90 mph was the radical supine recumbent built by Northrup's Society of Automotive Engineers. A tricycle with the paired wheels in the back and a steering front, this machine was constructed of about 2" diameter aluminum tubing 20 feet long and 27 inches high. Powered by J. P. Holloman and Jam Russell, two local trackies, the trike proved to be one of the most stable designs.

TCA member Phil Norton continued to have stoker problems. After taking highest overall speed in 1975 (44.87 mph), Phil last year suffered nerve failure caused by a mighty "karate yell" from his stoker as they entered the traps. Phil confides that the confines of the shell effectively amplify even the slightest noise. I can attest to that fact, having heard a loud "clump" from his Greenhouse as it passed me while shifting gears. This year Phil's stoker "got spooked" on the first run and refused to get back in again. Confined to a hot shell with no visibility, lots of dust, going like hell but not knowing where....Small wonder!

TANDEMITIS by Rudy and Kay Van Renterghem

Tandemitis cannot be fully understood unless experienced. It is the desire to forsake the use of your single bicycle in order to ride in tandem. We've been solo bicyclists for many years and always enjoyed riding together. We used to cart our kids along on our singles and, as our three sons grew up, they each got their own two-wheelers and became cyclists under their own power. As with most couples, our paces and preferred distances varied somewhat and we ended up getting separated in city traffic or on the longer bike rides. Being old romantics (being in our 40's does not preclude romanticism), we felt togetherness could be achieved once more by riding a tandem.

Tandems have always been a bit of a rarity, and our search for a multi-speed twicer was finally rewarded after much effort. The local bike shop had exactly one tandem in stock. The frame sizes were a bit large for us, but alas, that's all that was available. We took it for a trial spin and liked it, although we knew we'd have to develop a totally new riding technique (Bicycling! April 1977, "Tandem Lexicon"). The tandemitis bug had struck! We discussed the tandem topic thoroughly, but with winter on the way the project was put on the back burner -- well, sort of! By a typical husband, the tandem was ordered without the spouse's knowledge for delivery on our 20th wedding anniversary in January. Needless to say, the surprise anniversary gift made a big

Our new acquisition was a silver-blue 10-speed Follis, the same tandem we had tested three months earlier. It weighed 46 pounds -- a respectable 23 pounds for each rider. It wasn't too long before a few changes were called for. The foremost problem was the factory-built wheels -- we broke seven spokes in the first 100 miles. We solved that problem by switching to ACS front and rear high flange hubs and by using Berg-Union tandem spokes with the factory-supplied Nisi rims. The rear drum brake was replaced with two Mafac Racer caliper brakes, mounted back to back and running off one brake cable. The steel cottered cranks posed no problem and with 52-40 chainrings and a new 13-28 cog, we had a nice gear range of 38.5" to 108". The plastic Simplex derailleur was replaced with a Suntour VGT Lux for smoother shifting and the rear all-rounder bars were replaced with randonneur handlebars to give the rear rider a better selection of hand positions. We added toeclips and a couple of water bottles and we were all set

We compromised a bit here and there on our individual riding styles and found that tandeming was the perfect solution for us. Gradually we became proficient tandemers and covered many happy miles on our Follis. Being typical bikies, though, we quested for a bit better performance. Sure, we were able to keep up with the main body of riders on most bicycle gettogethers, and for a

couple of old timers, we felt that wasn't too bad. But still, at our age, we felt we needed a bit of an edge -- something that could be ridden with just a little less effort. We mulled over the possibility of upgrading the components of our Follis tandem, but aside from the cost, we still would not have a proper frame fit. What we really needed in frame sizes and equipment just did not seem to be available in a production tandem. Through our own experience in tandeming and having been careful observers and good listeners when we met other tandem riders, we developed a mental image of what our next tandem would be like. The only way to get what we wanted was to start from scratch, to design our own frame and get the components needed to flesh out that frame; in other words, a custom built tandem. Tandemitis strikes again!

Foremost, we wanted a tandem that would conform to our anatomical structures. We liked the male-mixte setup and crossover drive on the Follis and toyed with the possibility of a wider gear range through the use of triple chainrings. After inquiring by mail of several tandem frame builders, both here and abroad, we were bewildered that some would not build a male-mixte frame and others would not build a crossover drive. It seems they were willing to build custom frames -- but only to their specs.

Then we saw it!! It was at Midwest Tandem '76 in Kokome, Ind. There, among the nearly 40 tandems present for the Labor Day weekend stood a unique machine. It was an orange beauty owned by Roger and MaryAnn Premoe of Lansing, Michigan. Lo and behold, it was custom built in our own home state by Matt Assenmacher. We knew Assenmacher's reputation for building excellent single frames, but we were unaware that he also built tandem framesets. Being typical tandemers, the Premoes needed not much prompting to discuss and sing the praises of their custom tandem, and we did not need much convincing to visit the Assenmacher workshop in Mt. Pleasant, Mich. Tandemitis had us for sure!

We arrived at his small, well-organized shop on the first weekend of October and we were surprised to find that this young man -- at our age, anyone under 30 is young -- ran the complete custom frame shop single-handedly. We discussed our ideas with him and he considered our verbal plans workable. Being able to meet face-to-face with a frame builder sure beats writing letters and looking at brochures! The silver-brazed frame of 531 Reynolds double-butted tubing, built to our specifications, with all brazed on bits and enamel paint job of our choice, would cost \$450. Component selection would be up to us. We thanked Matt for his time and promised we'd be back with final design and component plans in about a month.

The next few weeks were spent searching bike shops, catalogs and back issues of <u>Bicycling!</u> for component availability and prices. We felt that an economy component package could keep the price of the total tandem down around the \$900 mark, but after much discussion and budget manipulation, we realized if we used the

economy components, we would spend more money later upgrading the equipment. The decision was made to go "all out" and purchase what we felt were well-tested and proven tandem components that would suit our purpose and also would keep the all-important weight factor to a minimum.

A complete list was drawn up including two or even three alternatives for each piece of equipment, along with the prices and sources. It was time now to commit ourselves to the final frame design. We wanted a stiff and responsive frame with a short wheelbase; body measurements were translated into tandem frame specifications. Fortunately, neither of us is tall or heavy --Rudy is 5'7" and 125 pounds and Kay is 5' all stretched out and tilts the scales at an even 100 pounds. The front would be 21 1/2 inch male and the rear a 19 inch mixte. We selected an oval bottom bracket tube, or "boob tube," and a rear seat tube with a slight bend to shorten up the wheel base and make the bike more responsive. The laterals and boob tube would be of 4130 chrome molly with special eccentric bottom bracket and brazed-on cantilever tandem brakes. The paint job was to be black with gold paneling on the down tube and boob tube, gold headtube and gold outlining of the Prugnat I-type lugs. The fully sloping fork crown was to be complemented by a durable and esthetically pleasing black Dura Ace headset. The wheelbase figured to be right around the 60 inch mark and the weight depended upon the final component selection, but would be well under 40 pounds. Here we had a frame design that not only suited us physically, but was also very pleasing to the eye -- at least on paper.

We joined the Tri-County Bicycle Club Co-cp in Lansing, and with the expert assistance of its manager, Kim Wilcox, pared down the list of components. Kim's expertise at locating suppliers for some of the needed parts proved to be invaluable. Parts were purchased though the co-cp, at local bike shops, through catalogs and from advertisers in Bicycling! The components purchased were: TA crankset, cross drive; Suntour winner log (13-24); Phil Wood bottom bracket, hubs and pedals; Suntour Cyclone front & rear derailleurs, Suntour bar end shifters; HKK Oro chains; Mafac cantilever brakes with Mathauser brake pads; Super Champion 36H rims, Berg-Union butted spokes; IRC High Racer front tire, Schwinn Le Tour rear tire, Michelin tubes; Cool Gear Road saddle front, Brooks B-72 rear.

On November 12, 1976, we made another visit to the Assenmacher cycle works and ordered our tandem frame. Measurements were double checked and the final component selection was presented. It was also decided then to chrome-plate the Campagnolo dropouts to avoid worry about damaging paint when removing the wheels or rear carrier. We hoped the typical Michigan winter slowdown would work to our advantage -- and it did. Matt promised to have our frame built in four to six weeks.



Components started arriving and were checked off our list. harder to get items took a bit longer than expected, but everything was falling into place like a life-size jigsaw puzzle. Then, in the midst of one of Michigan's worst winters, we got a letter from Matt Assenmacher, dated December 14, saying that our frame was ready. Now there was something to really brighten up our winter doldrums! With the impending holiday season and severe Michigan weather, along with other commitments, we were unable to drop off our components to Matt for assembly until the first week in January.

We viewed our finished frame for the first time; it was a true masterpiece. The black and gold painted frame gleamed under the artificial lights, begging to be fully assembled and put to the test. Many weeks of discussion, paper work, revising, component selection and other necessry tasks were embodied in this artisan's assembly of exotic metal tubing, crafted into our distinctive personal frameset.

We took delivery of our fully assembled tandem on January 22, one week before our 22nd wedding anniversary. The moment of truth had arrived and even the bitter cold Michigan winter could not stop us from taking a quick test ride. We picked a nicely snowcleared stretch of highway for a fast, one-mile test run. After a gingerly slow start we gave the tandem all we had -- and we moved smoother and faster than we ever had before. It was exhilirating, it was fast, it was perfect! After many more short winter rides and longer spring excursions and making all the necessary adjustments to the seats, handlebars and derailleurs, our tandem proved to be everything we had planned and hoped for -- and then some.

The frame on our custom Assemnacher tandem is stiff, and handling is superb. It climbs hills easily and descends without being squirrely; it is comfortable to ride and puts no excess strain on the driver's shoulders. Its 60 1/4" wheelbase is no more skittish than the longer wheelbased Follis and, for once in her life, the stoker can ride comfortably in the drops. Stripped down -that is, without carrier, tool kit, water bottles, etc. -- the Assenmacher tandem weighs in at a very light 34 pounds. Total investment for frame and components amounted to \$1200. Costly, yes -- but worth every penny in performance and enjoyment.

In these days of accepting what's available and the half-filled promises of some manufactured items -- whether it be cars, appliances or what have you -- it is indeed an extreme pleasure to have something unique, something that more than fulfills its promise and performs beyond expectations.

Togetherness and tandeming go hand-in-hand -- but beware -- Tandemitis is contagious!

SOUTHWEST TANDEM '77

Southwest Tandem '77 held the last weekend in March, was a modest success as a first time event. Attracting some 25 tandems to the beach town of Oceanside, Ca., situated midway between Los Angeles and San Diego, the rally provided an enjoyable and informative weekend for most all. The weekend included two full days of riding as well as a meeting of the TCA, which is reported on elsewhere in this issue.

A total of twenty-one tandems rolled out on Saturday's rides, an easy 40 miler to Rancho Santa Fe with a return up the coast road, and a more difficult 56 miler that went further inland. Both rides lunched in Rancho Santa Fe's excellent deli, Ashley's. The 56 miler once again proved that Boyd/Allison should not be let loose with map and compass. Generally agreed to have "about 8 hills too many" (some estimates ran as high as 17 too many) the ride left few teams with the feeling that they hadn't gotten enough miles in. (In all fairness to the ride planner (me), Nothern San Diego county is a difficult place to avoid hills, as it is a rugged, hilly area cut by many dry canyons. We did discard the first 55 mile ride we planned as being too difficult.) Soreness and fatigue, both physical and mental, slipped away in the jacuzzi back at the motel that afternoon. Following an initial moment of reticence, the team of Vedera/Vardara of Northern California showed the local hotshots what good form is in a time trial around the pool in a "tandem trainer". Tandem trainers, for the uninitiated, resemble nothing so much as a pair of wooden Chinese clogs for two. Needless to say, they are in phase. Twenty-nine seconds clinched first prize, a six of Heineken light. Those who failed to drown in the jacuzzi composed a wrinkly-skinned party for an all-you-can-eat chicken dinner at the excellent Twins Inns (where else would tandemists go?) in nearby Carlsbad. A gab session followed, the central subject of discussion being future rallies, particularly Southwest Tandem '78. Top bidders were Chris Quint and Jim Richardson, who plan a weekend tour type of ride for next year similar in style to TOSRV, starting in one town and traveling to another Saturday, with a return ride Sunday, with sag and support.

Sunday, twenty-six tandems rolled out on an easier 50 mile ride up the San Luis Rey river valley to a picnic in pretty Live Oak County Park. This ride had several "escape routes" in it to avoid all but one hill; unfortunately, some of the better scenery of Gopher Canyon and the overhanging live oaks of the hillier portions were also bypassed. All tandemists met in the park for a filling meal of grinders and salad, plus all the extras, followed by a long down hill back to the river. Thus ended a couple of days of scenic, if not easy, riding with a minimum of mechanical problems in the low density traffic of San Diego County.

THE CALVERT EXPRESS by Malcolm Boyd

I suppose no rally would be complete without a "show bike", the one around which everyone clusters and takes pictures. Southwest Tandem '77 certainly had one -- a "Calvert Express" ridden by TCA member and builder Steve Calvert (P.O. Box 3065, Eugene, Oregon 97403) and stoked by Margaret Briggs. Although Eugene is not a town that pops into my mind when I think of a cycling center, this frame shows that some very good ideas are being implemented up there. Judging from the number of tandemists asking for Steve's address, the design struck a responsive note.

I don't think I have ever seen another tandem with as many innovations as the Calvert. This particular cycle was loaded with them; being Steve's personal machine, he had taken the opportunity to incorporate several purely experimental ideas as a method of road testing for possible future use. To start at the front and work aft: Calvert's front fork was unusual; four blades had been used in all, two on each side, one tucked in on each side under a sloping fork crown. Steve commented that this was to reduce side to side deflection of the fork during hill climbing. His style of climbing, using a 42 x 25 (45") low gear and in phase cranks and rocking the tandem back and forth slightly is conducive to this sort of stress. Calvert's conclusion was that this fork was unnecessarily stiff and he plans to go back to conventional single wide oval section fork blades to reduce weight. The fork blades used were actually chainstays bent to his pattern with a 1 1/2" rake. Mounted at 73 degrees, the riding response was very quick, suitable for racing perhaps, but too lively for relaxed day touring in my opinion.

Calvert's treatment of the transmission is highly original. The bottom bracket shells are light thin-walled tubing milled precisely to an inside diameter of 30 mm to fit the outside diameter of the new Phil Wood bottom bracket assemblies. The bottom bracket assemblies are slathered up with locktite and inserted into the tubing; the fit must be exact as the loctite is what holds the works together. No lock rings are used; in fact, no threads are present. There wouldn't be room to put them anywhere; the outside of the bottom bracket shell is smaller than the Phil Wood lockrings. Aha, I hear you say, what about the eccentric on the front bottom bracket to tighten the chain? It doesn't exist either. In its place, an idle chain ring tensions the transfer chain. Inserted between the 42 tooth transfer chainrings is a 54 tooth chainring with all the supports cut out. The teeth of this ring engage the transfer chain at top and bottom only, but the ring is firmly trapped between the two spans as an idler. My contention that the chainring might be crushed between the chain spans in a burst of power was countered by the fact that only one side of the chain (the top, if the pilot is working) is loaded at any point in time. As the chain stretches, the idle chainring is moved closer to either transfer ring (i.e.

away from the center) to "soak up" the extra length. Two advantages of the system are the reduction of weight and the ease with which the transfer chain may be tensioned and removed for clean-

The frame itself is a partially lugged 24" x 20" double men's with parallel horizontal top tubes. Bracing is composed of a single set of lateral 5/8" stays from head tube to rear Sun Tour dropouts. The bottom tube is hand bent oval section of 4130 tubing, while the rest of the frame is a composite of 4130, Super Vitus and Reynolds 531. Some of the frame angles are very interesting. Steve believes in keeping the stoker in proper position over the bottom bracket with a rear seat mast angle of 75 degrees, combined with a 24" bottom tube to ensure ample arm room. Chainstays are 16 1/2" and wheelbase 63", yet include fender clearances. The two top tubes are canted 1 degree off horizontal (tipped up in front) to shorten the jog section of the front seat mast between the two top tubes. The drop, or vertical distance from center of the bottom bracket to the line connecting the wheel axles is 3/8" greater in the front than in the rear. This means that the rear bottom bracket is higher than the front, to assist the smaller stoker's vision over the pilot. Neither this nor the 1 degree top tube variances were noticeable, even after I knew they existed. It did cause me to bottom out on a pedal on the first high speed corner I rode the tandem through,

Both chainstays and the extra set of fork blade bottoms were ended in a highly unusual style. The small end of the tubing was cut at 45 degrees, rather than at a right angle to the axis of the tubing. The longer inside part of the cut is brazed gracefully to front and rear dropouts. Thus the inside of the chainstays were even with the dropout, clearing the chainline. The angled cut is left open rather than being capped or filled in. The Mafac cantilever brakes are mounted on sections of 5/8" tubing to give a little extra clearance for the brake pads between rim and chainstay or fork. Other equipment included a Campy headset and derailleur shift levers mounted on the lateral tubes, SR cranks 42 x 52 T matched to a 14-25 T freewheel with transfer chain on the right hand side. Final finishing included a very smooth preparation followed with a DuPont metallic Imron enamel over a base coat of Imron applied by Les Lunas, who also paints

On the road the Calvert Express seemed light, quick and responsive. It climbed hills well without noticeable deflection of the bottom bracket, even when in too large a gear. Downhill it

Calvert's innovative approach to tandem mechanics, combined with his desire to build tandem frames exclusively portends a bright

NOTES FROM THE VICE PRESEDENT

Many times I am asked by members of the TCA what they can do to encourage tandem riding in their localities. Following are a few ideas that our members have used in the Southern California area which I believe can be put to use in other parts of the country as well.

- 1. Have local clubs designate one ride a month as a "tandem ride." Volunteer, as a TCA member, to act as ride leader for that ride.
- Encourage, organize and promote special tandem events at bicycle rallies and events such as GEAR and the LAW Convention.
- 3. Arrange for special tandem mass starts at organized centuries and tours such as that incorporated at TOSRV this year. Many times all this takes is a phone call to the event promoter/organizer.
- 4. Encourage race promoters who have "citizen races" to provide for tandem class events.

In doing any of these things, remember that getting the word around is the most difficult part. It can be very discouraging to organize an event and then have a poor turnout. Places to advertise your event's existence include local touring and racing club bulletins, Bicycling! magazine and the League of American Wheelmen Bulletin calendars. The latter is always available since the TCA is an affiliated club.

THE EDITOR'S MAILBOX

Bob Freeman of Seattle, Wash., writes: "Regarding the Super Champion flat problem: Last summer on Bikecentennial, riding my single I experienced exasperating problems with my Super Champion rims, both the flat-near-the-valve-stem variety and the rimstrip-slice variety (considerably more of the latter). After replacing 13 tubes and trying three different methods of lining and padding the rim, I hit upon the idea of using 1/4" inside diameter gum rubber surgical tubing as a rim strip, glued down at the ends only where it butts up against the valve stem. Problem solved! No flats at all from Pueble to Yorktown to Montreal.

"Since I had such phenomenal luck with the rims (12,000 miles and never trued) I put them on my Taylor tandem (40 hole, 4x) along with the surgical tubing rim strips. So far, no broken spokes, no flats. Happy flat-free tandeming!"

Richard Long of Atlanta writes a short description of his Jim Bradford tandem which mentions this clever dodge for lessening the cost of components: he bought a Raleigh International bicycle, kept what components he wanted and sold the frame and remainder. His only problem is a recalcitrant front Campy Record derailleur which refuses to shift from one chainring to another, even though the adjustment screws are set to maximum. A multitude of things can cause this problem; among them to my knowledge are greasing rather than oiling the derailleur, not having the chainrings in the proper position under the derailleur because of a wrong length crank axle, not having the stoker let up while shifting, having the derailleur cage hit the fender when shifting all the way in, improper lubrication of the derailleur control cables. The Campy Record has quite enough latitude to shift over a triple chainring set when properly aligned. Richard's problem is one of the derailleur's downshift from a 44 to 36 T ring. This is an operation performed by spring action on the Campy. Some tandemists with this problem use a Sun Tour derailleur, which has reverse action, pulling the chain from a large ring to a smaller one with cable action.

Jim Kehew of Camp Hill, PA, President of the League of American Wheelmen, writes: "I really enjoy reading Double Talk. It is good to see TCA growing and becoming more organized. As you may know, the League is going to be celebrating its 100th anniversary in 1980. The Centennial Convention is going to be in Newport, RI, where it all began in 1880. Perhaps TCA could hold some kind of get-together there at the same time. The Wheelmen are going to be meeting there then (with their antique bikes) -- it would be good if it could be a huge meeting of the leading bicycle groups." Any East Coast volunteers to organize some activities?

Peter Hutchison of Esperance, NY, offers these comments on wheels which "borrow an idea from HI-E."

"The greater stress on the freewheel side is due not to hard pedaling, but rather to the unequal spoke tension (left and right) required in dishing to accommodate the width of the rear cluster on the right side of the hub. Tandem owners note: fitting the rear wheel with a disk brake on the left side greatly reduces this asymmetry so that additional spokes for such a wheel should be shared equally between both left and right sides.

The HI-E idea is to add pulling spokes to strengthen wheels -this is eminently sensible for wheels with caliper brakes only,
where the applied torque at the hub is always clockwise (as
viewed from the right). Tandem owners note: A rear wheel fitted
with either a hub or a disk brake experiences counterclockwise
torques (as viewed from the right) whenever such brakes are
applied, so that additional spokes for such a wheel should be
shared between both pulling and "static" spokes.

Wheel builders (and owners) should seriously consider tying and soldering the rear wheel's spokes on both the right and left sides to reduce spoke breakage. The procedure is simple enough. The frequently expressed concern about discomfort due to increased wheel stiffness is overstated. The practice increases the stiffness of the wheel only in response torque around the axle, and such stiffness would be barely perceptible to the rider(s). On the other hand increasing the number of spokes in a wheel from 36 to 48 will increase the stiffness of the wheel as wheel from 36 to 48 will increase the stiffness of the wheel as strain by sharing the stress between two members makes as much sense in wheel building as it does in tandem riding."

CLUB BUSINESS

At Southwest Tandem '77, an informal meeting of Tandem Club members was held. It was hoped that the meeting would provide a chance for members to express their opinions on the direction the club should take. The meeting was highly successful in bringing out areas of interest, as attendees were enthusiastic in expressing their ideas. The following is a summary of suggestions and a collection of possible methods to utilize those ideas. Suggestions and comments are welcome, as most of the ideas are relevant on a national level.

Tandemists enjoy getting together with other two-seaters for rides, tours and rallies. This fact was expressed at the meeting and it was suggested that the TCA should work to organize and publicize tandem events. Publication of a national calendar of tandem events was suggested. A calendar for the March Double Talk had already been published and such a calendar will become a regular feature. With the TCA helping to coordinate events, overlapping tandem events (yes, there are such things; Southwest Tandem '77 conflicted with the famed Tecate-Ensenada Beer Run, a tandemist's ride if there ever was one!) can be reduced. Area events such as Southwest Tandem '77 can not be the only activity of the club in the opinion of members; local rides need to be planned. To help in the planning of this sort of ride and to serve as information bases, regional information volunteers will be pinpointed. Information officers will regularly report in Double Talk tandem activities in their area and should encourage people to plan local rides and longer tours for tandems. The addresses of the regional volunteers will be published in Double Talk so they can be contacted by the members who want further information on the club or an event or who wish to plan an activity. John and Donna Goodloe volunteered themselves for the San Diego area. Tandemists in the Los Angeles-San Diego area are going to trade off a monthly day ride. Overnight hostels in the area and potluck dinners are planned to keep the cost down and to increase the socializing. Members felt, although not unanimously, that the TCA should restrict its activities to tandems or THE RESERVE OF THE PERSON OF T

very interested solo bicyclists.

Requests for a directory came from several sources. It was suggested that information be gathered as to whether individual members would open their home to other TCA members, be it floor, lawn or bed space. This makes overnights obviously cheaper and allows TCA members to get better acquainted. Directories are now being sent out to members. These directories are meant to be used only for members' personal use.

The idea for a national tandem rally to be held every five years or so, submitted to the editor by member Roger Premoe of Michigan, was enthusiastically received. If enough warning is given of such an event attendees thought that they might be able to combine the rally with a business trip or vacation. Before such an event is planned, we would like to hear other opinions and ideas for a location.

TANDEM TIDBITS

A Tandem Club survey, designed by Fred and Kala Koch of Hermosa Beach, CA, is included in this issue of Double Talk. Please also note that this is renewal time -- this is the last issue you will receive if you don't return the survey and \$3.50 to the Treasurer by August 15.... Congratulations to TCA member Bill Boston on the article that featured him in one of the May issues of Sports Illustrated. While it mentions that Bill also builds solo bike frames, the article centers on his tandems. Just the sort of advertising we need....Speaking of advertizing, the TCA's officers have decided to accept commercial advertising to help defray printing costs, which have skyrocketed with our membership increase and the increase in the size of Double Talk itself. Advertising rates are \$5.00 per eighth of a page (minimum) per issue, or \$40.00 per 8 1/2 x 11" page....Next an apology to all those who saw our inclusion of the San Diego Area Representative and were wondering what the hell was going on. As noted elsewhere in this issue in greater length, the idea of a local representative was suggested by the San Diego tandemists. The area rep would act as a focal point for that particular area, organizing rides if desired, providing information for the bulletin, and answering local member's questions and problems. As it is now, the current officers live in Los Angeles and New Jersey and are perhaps familiar with our local tandemists desires, but have no effective way to communicate with the Midwest, for example. The area reps are appointed; we suggest you volunteer if you would like to help us out. Make a note on the survey, if you wish to be an area rep. The reason that the San Diego representatives were announced without an explaination was essentially a mistake; their names were included but the article explaining the position was not finished in time.... Thus passes our first year. What started with four people, a couple of

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mailing lists, and a ratty, nameless 5 page bulletin has progressed to become one of the largest cycle clubs in the U.S. (By our last count we rank 5th among LAW affiliated clubs in the country.) I never would have guessed a year ago that we would be where we are today.

TANDEM RIDE CALENDAR

Following are TCA sponsored rides and coner events of special interest to tandemists. For registration forms and information, please send a self-addressed stamped envelope to the address listed.

- July 10
- LOS ANGELES COASTAL TANDEM RIDE, Handicap Tandem Races, Pool and BBQ. Meeting at 9:00 AM at SE corner of Palos Verde Drive West and Hawthorne Blvd. (park by Fotomat). Ride leaves at 9:30, a leisurely ride in and around Palos Verde Penninsula. Handicap races at the Manhattan Beach Gran Prix. After races, adjourn to pool and drinks at a location to be announced. Ride leaders McCready and LeVesque.
- Aug. 14

 TANDEM VENTURE, Escondido, CA. Meet at Ed & Jackie Bataller's (from I-15 or I-5 take Hwy. 78

 East, north on Broadway, east on Lincoln, north on Daisy to 1050) Come either the night before & bring a sleeping bag or 7 AM for a ride to breakfast at nearby Aunt Emma's Restaurant. Ride to Elfin Forest, Rancho Santa Fe and Carlsbad. BBQ to
 - Elfin Forest, Rancho Santa Fe and Carlsbad. BBQ to follow, bring something to char and salad or desert.
- August 20-22
- Skyline Drive Tandem Tour- sponsored by the Baltimore BC for tandems only- separate from the BBC Skyline tour for the masses (solos). Valley route from Front Royal to Waynesboro, 100 mi. Saturday; 55 mi. Sunday to Big Meadows on the Drive; 55 mi. Monday inc. 5 mile downhill into Front Royal. Motels & hopefully sagged. Write Ruth & Al Schaffer, 3212 Midfield Rd. Baltimore, Md. 21208 with SASE for more information.
- Sept. 3-5

 MIDWEST TANDEM RALLY, Kenosha, Wisconsin. Three great days of riding through beautiful Southeastern Wisconsin. The Kenosha Roadrunners. For information, contact Tom Harrington, 10026 63rd Ave., Kenosh, WI 53142. 1-414-694-7079.
- Sept. 16-19 TANDEM '77, Lake Waramaug, Connecticut. There will be a choice of gentle and hilly rides that are both rural and scenic. A two or three day package is available at \$110 or \$130 per couple in a country inn (meals included). Duane Thompson, 58 Ferris Ave., Norwalk, CT 06850.

USED TANDEM SERVICE

The TCA has taken over the used tandem information service from Bill Boston. If you are looking to buy or sell a used tandem, please send the relevent info to the secretary and she will print an ad in Double Talk. She will also keep a file of these ads and try to match buyers and sellers of used tandems. Following is a list of all such ads received to date.

TANDEMS WANTED

- 23" front, smaller rear. Don't mind if it needs some work as long as frame is OK. Not too expensive. Richard A. Phelps, 21 Tunstall Rd., Scarsdale, NY 10583. 914-723-3045.
- 2. 21" front 19" or 20" rear. Thomas G. O'Reilly, 1410 Clarence, Berwyn, IL 60402.
- 3. 22" 25" front, 19" 21" rear or Mixte. Ten or 15 speed. First tandem. John Stubblebine, 28-28 Tower Drive, West Lafayette, IN 47906.
- 4. 25" x 21" mens/ladies frame. Ten speed, light weight, good quality, excellent mechanical condition, clean. Albert Schott, 154 Fox Meadow Rd., Scarsdale, NY 10583. 914-723-8072.
- 5. Second hand tandem to be used by students. Adrian Fasnick, 555 Knollwood Rd., White Plains, NY 10603.
- Quality used tandem. Gary L. Coles, c/o New Pennsylvania Reality, Inc., Route 1, Main Street, Westcoesville, PA 18106.
- 7. "Starter tandem." 23" 24" front, 21" 22" rear. Ten or 15 speed, any condition as long as frame and cranksets are intact. Not over \$300. For a really good tandem, will trade Holdsworth Professional 24" all Campy (except brakes) never been raced. Cinelli bars & stem, Arc-en-Ciel rims and silk tubulars. Randy Swart, 4649 S. 2nd St., Arlington, VA 22204. 703-521-2080.
- 8. 23" x 23" or 22 1/2" 24 1/2" front, 21" 23 1/2" rear. Straight or sloping top tube, marathon or double marathon design, doublebutted frame, oval bottom tube. \$600. Stephen K. Perry, 510 15th St. NW, Apt. 4, Charlottesville, VA 22903.
- 9. 23" x 19 1/2" mens/ladies. Must be 10 speed. \$300 \$400. Karl E. Montstream, 3414 75th Ave. N.W., Gig Harbor, WA

- 10. 24" 22" mens frame. Cross drive 15 speed, clinchers, preferably 48 spoke wheels, preferably mudguards, front & rear racks and lighting. Wanted for sport riding & touring. Jeff Hunn, 608 N. Mill, N. Manchester, IN 46962.
- 11. 23" x 19" Mixte frame. Five or 10 speed. Gertrude Kappel, 93 Fox Run, Poughkeepsie, NY 12605.
- 12. 23" 24" x 20" 22" mens/ladies or 23" 24" x 19" 20" mens/mens. Prefer Reynolds tubing, but will consider nice Gitane or Follis with straight guage tubing. Most component sets would be acceptable, providing price is reasonable. Will consider used Paramount. Joel Schwartz, 16 Dartmouth Lane, Haverford, PA 19041.
- 13. 24" -25" front, 19" rear (for a 10 year old). Ten speed.

 John Williams, "Cartref", R.D. 2, Etters, PA 17319.
- 14. 22" x 22" max. Touring tandem, 650B tires, plenty of room inthe back, no short-coupled frames, rear saddle for woman.

 Must be suitable for touring. John Vogel, 6 Thomas St., Providence, RI 02903.
- 15. 20" x 20" mens/mens frame. Pilot 5'6", stoker 5'3". Frame should be able to accommodate either 27" x 1 1/4" or 700C tires. Thomas Davis, 2003 Ward St., Durham, NC 27707.
- 16. Mixte frame, pilot: 5'6". Top tube should be no more than 31" above the ground. L. Owen Moore, Jr., The Trane Co., 4513 Jonestown Rd., Harrisburg, PA 17109.
- 17. 21" 23" front, 19" rear used tandem or frame. David Pain, 1951 Cable St., Ocean Beach, SanDiego, CA 92107

TANDEMS FOR SALE

- 1. 24" double mens Schwinn Paramount with 2 sets of wheels: Campy Tipo hubs 3x to Mavic dural rims with clinchers and Campy high flange Record hubs 3x to Martano 360's with silk sew ups; TTT bars, Brooks saddles and Campy derailleurs and fingertip shifters. \$750. Bruce Macklin, Associated Students Bike Shop, Trailer 324 UCSB, Santa Barbara, CA 93106, Tel. 805-961-3610 or 805-968-9370 (home).
- 2. 24" x 22" mens/ladies Schwinn Paramount, white, Campy hubs, loaded with extras. \$600. Fred Time, 600 Jackson, Dallas, Texas 75202, Tel. 214741-1716.
- 3. 1930's Saxon Junior Back tandem, 20" front/16" rear. Bought in England 2 years ago; rebuilt and painted by Wolvale of Liverpool. Williams crankset, rechromed and ground; Campy

derailleurs; front and rear racks, 26 x 1 1/4" HP wheels with extra front wheel with Dynohub and complete set of lights. Photos on request. Price: \$275 or best offer, FOB Boston. Contact: Harold B. Lewis, P.O.Box 63, West Newton,

- Jeffery Richman 23"-23" tandem with Phil Wood solid axle Jeffery Richman 23"-23" tandem with Fill wood Solld axternation of the sets, Campy hubs, b.b. & pedals, Mighty Tour 15 sp. crank sets, Campy write: H. Greenberg, Shifters & cantilever brakes, more. 2820 Villiageside, Santa Rosa, CA 95405.
- 5. Antique tandem, 1890 dual steering tandem, completely rebuilt. Front motorcycle brake plus rear hand brake, 3speeds, 3 chains (one for back steering), white lacquer finish w/ black pin striping. Believed built by Iver Jack-son. One of a kind. \$7000.00. Steven Goldiss, 68-12 79th St., Middle Village, NY 11379.
- Remodeled and rebuilt tandem. 21" x 20" frame. Black finish. details available upon request. Larry Stanley, ABC Enterprises, P.O. Box 2387, San Rafael, CA 94901. 415-472-3449
- 7. Gitane tandem, 23" x 19". Red finish, Sun Tour derailleurs, Oltane tandem, 25" x 19". Red Ilnish, Sun lour derallieurs, 10 speed, Mafac rim brakes, Atom drum brake, one leather & carrier, Zefal pump. Ridden one spring saddle, fenders & carrier, Zefal pump. Ridden less than 1,000 miles. \$300.00. Cleve Laub, 6631 Queens Ferry Road, Baltimore, MD 21239.

TANDEM CLUB OF AMERICA

President: Glenn Zeichner, C-5 West Drive, Princeton, NJ 08540.

Vice-President: Darryl LeVesque, 2511 Jonquil Ct., Upland, CA Secretary: Beth Zeichner, same address.

Treasurer: Judy Allison, 179 S. Sierra Madre Blvd., Pasadena, CA

Editor: Malcolm Boyd, same address. 91107.

San Diego Area Rep: John & Donna Goodloe, 8084 Donzee Ct., San Diego, CA 92123.

Current Membership: 305 tandems

Dues: \$3.50 for membership thru August 1978 (\$2.00 after March, 1978) All subscriptions end as of July issue.

TCA patches, 4 x 4 1/2", \$2.25 each.

Deadline for next bulletin: July 15.

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