CLUB BUSINESS

The Tandem Club of America now has 45 paid members! While that's not exactly overwhelming (only about 25% of those who received our first Bulletin), it is a beginning. We welcome our new members and hope that they will encourage their fellow two-headed bicyclists to join the TCA.

Special recognition for exemplary enthusiasm must go to the tandemists from the Baltimore, Maryland area. This hearty clan represents one seventh of our total membership! We suspect that they may have had something to do with the recent coverage of the Tandem 76 rally and the TCA in the Baltimore Sun. Thanks!

While the TCA would like to be as helpful as possible, the cost of postage alone keeps us from continuing to send the Bulletin to everyone on our mailing list (about 185 names). Therefore, those of you who received the first Bulletin in September will be dropped from our mailing list for January, unless, of course, you send in your membership fee. For those who forgot or misplaced the first bulletin (or their checkbooks), a second application is included on the last page of this bulletin. The odds are that you paid over 100 times the TCA membership fee for your tandem, so get some cheap enjoyment reading about it!

Two or three people can't (and shouldn't) write everything that goes into the Bulletin. Some of you wrote to us suggesting ideas for articles, but only one person volunteered to write one. So we've compiled a list of topics in which someone may have expertise -- please use it! Some of the topics overlap, and the list is not all inclusive, but it is, like us, a start. We also welcome any articles on tandem rides throughout the country. By the way, our deadline is the tenth of the month before the issue is to come out (e.g. Dec. 10 for the next Bulletin).

Technical
- Tires
- Wheels
- Transmission, gearing
- Brakes
- Innovations
- Frames - design, stiffness

The Stoker's Corner
- Tips for the Driver
- Women's Saddles
- Stoking & Women's Lib

Racing
- Tandems at the Worlds
- International Human Powered Speed Championships - Multiple Rider Class
- British Time Trial Records

Racing against Singles

Historical
- Racing Records
- Evolution of Tandems
- Tandeming in the 90's
- All the Verses of "Daisy, Daisy" (at least 5)

Tandem Handling
- Uphill-Downhill
- Time Trialing
- Driver-Stoker Communication

Touring
- Camping with Tandems
- Riding with the Blind
- Motel Tours
- Tandem rally plans & reports

Complementary Sports
- Rowing
- Cross-country Skiing
- Skating
- Running

Tandem Transportation
- By car, train, plane
- Roof racks for tandems

Chuck Allison of Ocean City, New Jersey has suggested that the TCA compile a list of tandem records. Records may be of any of several different categories, such as time trial, distance, road course and hour records, for both mixed and single-sexed tandems. If any one knows the course records for any annual event, we ask that they send the event, time, distance, date and tandemists' names to the editor.

We have received six suggestions for names for the Bulletin and one patch design. We realize that our members were so eager to get their money in that they didn't wait for the creative juices to flow! So we are extending the contests to the next issue.

MIDWEST TANDEM 76
by Mont Williams

Midwest Tandem 76 was a rousing success! Seventy riders registered their 35 tandems on Labor Day Weekend for the first such event to be held in the Midwest. When the Kokomo (Indiana) Wheelmen first started planning this event, it was hoped that at least 15 couples would be interested, but the response was overwhelming. Riders came from Indiana, Ohio, Michigan, Illinois, Kentucky, Wisconsin and Missouri. Dave and Karen Fry rode their tandem from Kansas City, Missouri. The nearly 450 miles proved to be Dave's downfall as he injured his Achilles tendon and was unable to ride on Saturday and Sunday. Dan Minor and Doug Bray of the Kokomo Wheelmen teamed up with Karen to keep her tandem moving.

Registration started at noon at the Ramada Inn and, as more and more riders registered, the parking lot became jammed with bicycles. After a short welcome from Mont Williams, Ken and Ruth Ann Munro started most of the group on a 40 mile tour of the Amish farms northeast of Kokomo. The route led through such major metropolitan areas as Plevna, Sycamore and Wawpecong. A short time later, Mont and his wife Pam led the rest of the riders on a 20 mile tour to Greentown and its Glass Museum. Most riders were back by 4:00 P.M. and the group got together at the International Smorgasbord Haus for supper.

Sunday was a cool crisp day that anticipated the start of Autumn. Mont and Pam led a ninety-six mile ride that started at 8 A.M. and the first stop was at Adam's Mill which was built in 1845. A tour was taken of its four floors which were stuffed with antique cars, bicycles and tools. They were still grinding corn at the mill, but none of the riders bought a 25 pound sack to take with them. About 25 miles later, the ride started parallelling the Wabash River and the remains of the old Wabash and Erie Canal which was built in the 1840's. The area along the river provided special thrills as there were hills for the first time on the ride. Most of the area around Kokomo is as flat as a pool table and fun to ride in, but all flat cornfields and no hills can get monotonous. It was well past noon when the riders rode into Logansport for a much needed lunch. The changing wind direction had caused a headwind for the first 65 miles and it was starting to show on the faces of the cyclists. A few miles east of Logansport was Pipe Creek Falls where the route turned south to Kokomo and a brisk tailwind caused some of the memories of the headwind to fade.

The Munros led the shorter 60 mile ride on Sunday and the first 20 miles headed into the wind. This didn't have too much effect on the pace, but as soon as the route turned west, several hills took their toll. Nature always extracts her revenge somehow. Pipe Creek Falls was the highlight of this ride. It is a natural falls that has been the site of mills, stores and restaurants for more than a century. Both rides were scheduled to

come together at this point, but the fast pace of the shorter ride group put them a couple hours early and they returned to Kokomo ahead of the other group.

On Sunday evening, a banquet was held at the Ramada Inn. Even though the cyclists weren't bashful, they proved to be no match for the amount of food provided by the motel. After dinner, Mont Williams announced the formation of the Tandem Club of America. The aims of the Club were well received, and if it generates the same enthusiasm in other areas, it will be assured of success. Several sites for Midwest Tandem 77 were discussed. Kenosha, Wisconsin and Cincinnati, Ohio seem to be the most probable candidates. Ken Munro presented Mont and Pat Williams with a hand-thrown pottery bowl with the signatures of all the riders of Midwest Tandem 77 in gold. With the formalities concluded, potato chips and beer were brought out and most of the tandemists talked of experiences and problems until late that night.

The Ramada Inn started Monday with a free breakfast for its guests. The Munros started the morning's activities by taking a detour to show their guests some local attractions. The detour caused three tandems to get lost, but they ended up taking a pleasant tour of the surrounding countryside. Meanwhile, the main group toured through the hills of New London and on into Russiaville (pronounced Rooshaville) finally winding back through the countryside and finishing up at Ramada for check-out time.

Midwest Tandem 76 had been a well-attended ride which everyone thoroughly enjoyed. The interest and enthusiasm shown will insure that it will become an annual event.

Tandem 76 Revisited
by Beth Zeichner

On the second weekend of September, Tandem 76 was held in Lancaster, Pennsylvania. One hundred tandemists from as far away as Massachusets, West Virginia and Illinois met in the beautiful Amish countryside for the event. A sign declaring "Welcome Long Bikes" greeted the cyclists as they pulled into the motel.

Saturday dawned clear and cool (47 degrees). The heartier souls braved the temperature to ride a 9 mile pre-breakfast ride. The sun's warmth could be felt as the tandems rolled out on a 70 miler to Hershey. Entering the town, the sweet aroma of chocolate could be smelled everywhere. Box lunches were eagarly consumed at the beautiful Hershey Motor Lodge. After lunch, some tandemists toured the famous chocolate factory. On the way back to Lancaster, the cyclists visited the Hershey Medical Center and viewed the surroundings from the seventh floor of the structure.

A 40 mile ride into the Pennsylvania Dutch countryside northeast of Lancaster was also held on Saturday. Numerous horse and buggy teams were seen along the way. It is hard to say who looked stranger to the other -- the Mennonites with their black coats and beards, long dresses and bonnets or the pairs of cyclists in brightly colored jerseys, shorts and helmets. Other highlights of the trip included a visit to a cheese factory, the Kitchen Kettle Shops and an Amish bakery.

Saturday night the tandemists climbed aboard chartered buses for a trip to Groff's Farm Restaurant. There they were given a taste of some Pennsylvania Dutch cooking. All dishes were served family style so hungry cyclists were sure to get their fill. After dinner there was a tour of the wine cellar with free samples of wine made on the premises.

The Sunday morning breakfast ride took the tandemists east of Lancaster, where they were treated to a large country-style breakfast. On the return trip the cyclists passed the historic Straussburg railroad where restored steam engines still travel the tracks. Sunday afternoon there was a tour of picturesque city of Lancaster, complete with a motorcycle police escourt. There was another ride on Monday for those lucky enough to be able to stay.

There was also the inevitable exchange of technical ideas and information that occurs whenever two or more tandem owners meet. Among the most popular discussions (as always) were brakes and wheels. It seems each tandemist had his/her own ideas on the number and kind of brakes a tandem should have. There were several tandems there with only front and rear rim brakes, some others added a drum or a disk. Kyle Greenlee's tandem had five (!) brakes (disks front and rear, 1 rim brake in the front and 2 in the rear). The big wheel discussion centered around how to avoid spoke breakage. The solution seemed to lie in the number of spokes used in the wheel. While most wheels came with 36 spokes, tandemists have had much success with 40 or 48 spoke wheels. Again someone had to outdo everyone else -- one tandem had a 72 spoke rear wheel! Duane Thompson was sporting a radially spoked front wheel on his tandem.

The outstanding feature of the rally was the gathering together of so many tandemists in one place. The friendships made and renewed are surely the most rewarding part of Tandem 76. So many of the tandemists ride where they never see another bicycle, let alone another tandem. It is reassuring to find out that there are other people just as crazy about their "long bike." Congratulations are due to Patty & Sutor Hudson and John & Laurma Pixton whose efforts made Tandem 76 such a success. Tentative plans have been made to hold Tandem 77 in Connecticut.

TANDEM WHEELS-One Consumer's Experience
by Malcolm Boyd

Coming down a short hill on a local club ride, I squeezed on the brakes. Immediately I thought I had run over a cat from the weird howling that ensued. No. Upon checking, I discovered that my experience with tandem wheels had just begun. I had broken my first spoke.

Tandems are fun bikes to ride, but only if the beast behaves itself. I know of several owners who found that the care of the machine was getting to be more of a bother than it was worth. Most of these people experience trouble with the rear wheel.

Our first tandem wheel was fairly typical -- a Weinman 27 x 1 1/4" clincher rim with 36 14-12guage single-butted rustless spokes (butted hub end only) on an unmarked 140 mm diameter hub with a built-in drum brake. The wheel was laced cross three and small soft brass washers were placed between the heads of the spokes and the hub to help mold the edge of the flange and support the spoke on the extremely narrow flange. The flanges opened essentially parallel to each other and perpendicular to the ground, so that the outside spokes were forced to bend laterally getting over the flange on the way to the rim. The wheel lasted about 800 miles, at which point it broke two spokes off at the head on the cluster side. I was forced to disassemble it because I could not find a spoke that was large enough in diameter so that its head would not pull through, and yet was short enough to cross 3 on a large diameter flange.

The next spokes I tried were Schwinn Paramount tandem spokes, 309 mm 14-15-14 double butted chrome plated spokes. These were without question the worst spokes I have ever seen. About one-quarter of the brass nipples would not initially fit the spokes and were therfore discarded. About one-quarter of the remaining nipples used were rounded off by the spoke wrench by the time the wheel was built. The cause of the latter failure is twofold: one, the size of the exterior flats of the nipple is not constant, and therefore makes it easy to strip; and secondly, the nipple is manufactured to be used with a smaller diameter spoke (e.g. 15 guage), but has been redrilled and tapped to the 14 guage tandem spoke. This process leaves the nipple with a wall thickness that is too thin to withstand the forces exerted upon it during initial truing. The spoke itself had shortcomings. The implicit problem was the fancy chrome plating which cracked if the spoke was bent slightly to insert it as a replacement spoke. More seriously, it made the spoke susceptible to a form of corrosion called hydrogen embrittlement. Monomolecular hydrogen from the acids involved in the chrome plating infiltrates the steel and forms voids filled with hydrogen gas, which leads to premature failure. Fail they did! The other problem with this wheel will be familiar to those who followed the recent squabble in Bicycling! over cross 4 high flange wheels. In this case I crossed 4 on a 140 mm diameter flange. In addition to this large

diameter, the wide inter-flange distance found on a 135 mm axle width hub added to the problem, so that the spoke entered the rim at a severe angle from the non-cluster side of the hub. The result was that I broke as many spokes on the non-cluster side at the nipple as on the cluster side. This wheel lasted 400 miles before it started breaking spokes, and was discarded some 600 to 800 miles later when it started to break one every 20 miles. I got to know everyone in the Los Angeles Wheelmen by sitting on the side of the road truing my wheel as they rode by.

Finally, I decided that if these spokes were breaking, perhaps they were too light. Aided by some friends, I found a motorcycle shop that had 10-12 guage single-butted spokes. Aha! I thought ... The Answer! I should have realized I was in trouble when the wheel came back with no spare spokes (I had specified spares) and, incredibly, the wheel was not dished. Maybe a motorcycle wheel doesn't need dishing, but this was not the first bicycle wheel this shop had built. Well, to make a short story short, I got 250 miles and my money back, plus a rim with huge holes in it.

Off at a more conventional bike shop, I got a 36 hole Superchampion clincher rim laced up with 14 guage Swiss T.D. stainless spokes 4 cross on the same hub. The Superchampion rim, with its double box cross section is the strongest clincher rim on the market, the next best being the Rigida "Aluminum" of the same design. This I learned personally from how well the rim stayed true when a spoke broke and how easily it could be brought true on the rode in the absence of a truing stand. Its use as a tandem component is the only thing that is agreed upon by all the wheelbuilders I have consulted. As a result, the rim is in periodic shortage, at least in southern California.

Since the hub had 10 guage holes in it, it was drilled on both sides with 18 new 14 guage holes. This wheel started to break spokes at the rim at an amazing rate, and it became evident on closer inspection that the shop had laced the rim up backwards, inserting all the cluster side spokes in the rim holes canted toward the non-cluster side. While the problem was corrected for free, it just goes to show that you can't be too careful-- this was at "one of America's leading bike shops," too. Rebuilt, the wheel quit breaking spokes quite so often, dropping to a rate of one every 125 miles. This was fine except that the rate doubled during a 1400 mile camping tour that summer, due no doubt to the 50 extra pounds of gear on the bike. Fixing a spoke a day for three weeks becomes tiresome. While the stainless T. D. spokes held up surprisingly well compared to others tried, I became convinced that the hub was the heart of the problem. Crossing 4 on a 140 mm hub, and forcing the spoke to enter the nipple at extreme angles forced me to part company with that much drilled hub, as well as the drum brake that went with it.

In the interim, I had become interested in the prototype of the Phil Wood tandem hubs which was simply a track hub body with

a longer bolt-on axle inserted. I bought this standard flange hub as a 36 spoke wheel with the same T.D. 14 guage stainless spokes (cross 4, 305mm) and a superchampion rim. This exceptional wheel required no dishing due to the hub design, which is made to take a single speed cog and locknut on both sides of the hub. The idea is that gears on a track bike could be altered by just turning the wheel around. Since there was only one more thread on the road (freewheel) hub than on the track hub, I screwed a free wheel on and went out to ride the club's double centruy the next day. I felt confident that the wheel would hold up for the distance because we "almost" always got 400 miles out of a wheel before things started coming apart. Well, that wheel held together and rolled out so much more smoothly than the old wheel (translate hub) that we did the triple century that day. I swear the last hundred felt like stealing -- there was that much difference. The ride was also noticebly softer due to the smaller standard flange hub. (Stoker's note: I was still sore as hell!) (Driver's note: Ah yes, but think how much more you would have hurt with the old large flange wheel!) This wheel is still in my possesion, but has only 1000 miles on it with one broken spoke. I've never ridden it that much because I was still looking for a super-sturdy wheel for cycle-camping.

Last November I first saw a pair of "48's" -- 48 hole Superchampion rims laced with 14 guage Robergel Trois Etoile stainless spokes, tied and soldiered. The wheel had the new Phil Wood tandem hub with threads on the non-cluster side for a disc brake and had been built by Spence Wolf.

To digress a minute to praise Phil Wood hubs: they are light, require little maintenance (nice for a tandem where you are fixing everything else), spin out well, and the axles are essentially unbreakable and unbendable. The last feature keeps the axle from binding the bearings, something the solid axles of drum brake hubs do when they bend. Wood tandem hubs come in two different spacings for a 5-speed freewheel block and five axle lengths ranging from 127-140 mm. Furthermore, all his products are guaranteed, even for use on tandems.

Never one to be shy where wheels are concerned, I bought a similar 48 spoke rear wheel, except that T.D. spokes, cross 5 and not tied, were used with the intent of using it as a cycle camping/touring wheel. After 1400 miles of club riding, we gave this wheel a thorough road test -- Los Angeles to Carlisle, Pa. -- 2600 miles of some rough roads and steep grades. The wheel has not been given exceptionally tender care, as I am interested in seeing how much abuse it will take. It currently has 5200 miles on it, the last 100 under race conditions with USCF Category I racer (and TCA member) David Smith stoking. There have been no broken spokes. The wheel has been trued twice and there is now a slight wobble in the bearings that can be detected at the rim. Sideplay of 0.008" at the rim is normal in Phil Wood hubs, and the deflection probably does not exceed that. The wobble is not noticeable in the steering or handling of the bike,

which is a closly coupled road racing frame. This wheel has lasted over six times longer than any of the five that preceded it. While they are not cheap, costing about $70 for rear wheel components, exclusive of building fees, disc brake and freewheel, in the long run they are economical. They do have one liability -- if you break a wheel, especially on a tour, you may well have to cut the hub out, save it and buy a 36 spoke wheel. The only places I know that build these wheels are:

Spence Wolf
Cupertino Bike Shop
2098 Sunset Drive
Asilomar
Pacific Grove, Ca. 93950

Bud's Tandem Shop
217 W. First St.
Claremont, Ca. 91711

Bill Boston Cycles
P.O. Box 114
Swedesboro, N.J. 08085

Cliff Coffey, a tandemist in the Los Angeles Wheelmen offers this less expensive alternative: doubling the spokes.

All you need is an alloy 36 hole, non-ferruled rim and a large diameter drum brake hub. Drill holes in the hub between each of the existing spoke holes, making sure that the hole gives a snug fit to the spoke to be used. This gives you a 72 hole hub. Next, drill a hole between each spoke hole in the rim. Because the hole for the valve stem interferes with the placement of one hole, this gives a 71 hole rim. Both hub and rim are cleaned up after drilling with a countersink and reamer to remove burrs and chips. By using the same length spoke the wheel used for 2, 3 or 4 cross, the wheel will be laced 4, 6 or 8 cross, respectively.

My wheel is built with the atom drum brake hub, Weinman alloy clincher rims and 12 1/8" (308 mm) 14 guage T.D. spokes. This gave me an 8-cross 71 spoke wheel. I have been using it for more than 500 miles without breaking a single spoke. My cost for this project was $7.42 for 35 more spokes and $.63 for the drill, totaling $3.05 with tax. Time for the conversion was about 3 hours, most of which was used for lacing the wheel. (Ed. note: The "missing" 72nd spoke is never missed in the mass of the first 71. With this new wheel, Cliff and stoker Eileen Ware are completing club rides much more quickly, even with the added weight of 71 spokes. Ride on!)

WANT ADS

Bill Boston, a New Jersey frame builder, has received numerous requests for used tandems as well as notes from those wishing to sell a tandem. The TCA Bulletin will print these requests as a service to its readers. If any one else has a buy/sell notice they would like printed in the bulletin, they may send it to the editor.

TANDEMS FOR SALE

1. 1890 Dual Steering Tandem, one of a kind -- $7000.
2. Schwinn Paramount Tandem, front 22 1/2", rear 22" -- $600

TANDEMS WANTED

1. Front 23", smaller rear -- about $500
2. Front 21", rear 19" or 20" -- price open
3. Front 22" to 25", rear 19" to 21" or mixte -- $500
4. Front 25", rear 21", 10 speed, light weight, good quality -- price open
5. Good stiff tandem for a school -- price open
6. Quality used tandem -- price open
7. Front 23-24", rear 21-22" -- not over $300
8. 23"/23" is best, also front 22 1/2" - 24 1/2", rear 21" - 23 1/2", if no horizontal top tube -- a sloping top tube is preferred over an offset top tube -- $600 max
9. Front 23", rear 19 1/2" mens/ladies frame, 10 speed -- $300-400
10. Front 23", rear 22" mens/mens cross over 15 speed
11. 5 or 10 speed, front 23", rear 19" max or mixte
12. Front 23"-24", rear 19"-20" mixte, Gitane, Folis or Paramount

If you are interested in any of the above, contact Bill Boston, P.O. Box 114, Sweedesboro, N.J. 08085, for the name and address of the buyer/seller.

TCA Membership Application

NAME(S) _____

ADDRESS _____

CITY & STATE _____ ZIP _____

MAKE OF TANDEM _____ MILES RIDDEN IN '76 _____

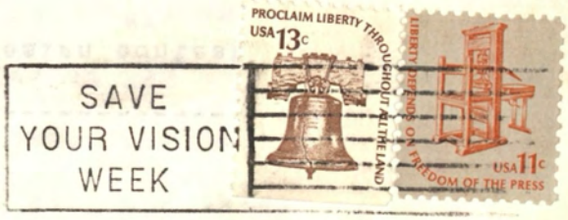
TYPE OF USE (Touring, racing, etc.) _____

CLUB AFFILIATIONS _____

The annual TCA membership fee is $3.50 per tandem team. Checks may be made payable to TCA and should be sent to:

Malcolm Boyd
Editor, TCA Bulletin
179 S. Sierra Madre Blvd.
Pasadena, Ca. 91107

Use this space for your entry in the patch design contest.



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