

DOUBLETALK

Tandem Club of America

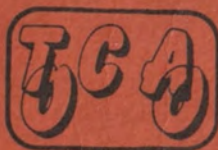
JULY 1983

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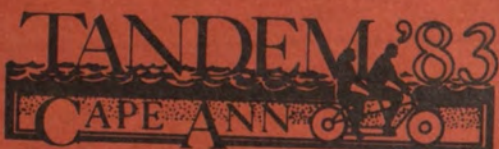
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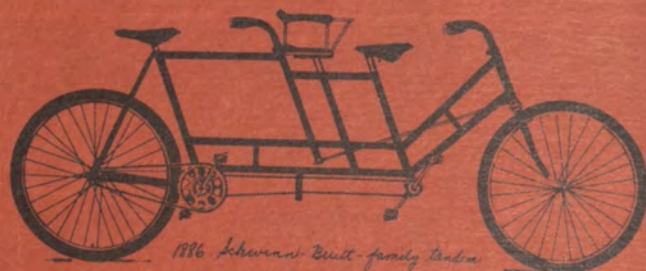
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Special thanks to the organizers
of Midwest Tandem Rally '82 for
a very generous donation and their
continued support of Tandem Club
of America.



1886 Schwinn-Built-family tandem

J. Reker

8 ON OUR OWN



Coming next time:

Why Barry Freeman thinks you
should buy his (gasp!) \$300 bike rack

A Special Bummer

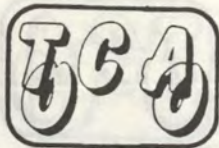
New and Old Problems

Part IV of "Build A Custom Tandem
Frame" by Rodney Moseman

Technical tips by Bill Boston

...and we finally thought of something
good to say about The Bicycle Book...

...and, of course, a special mail bag
of goodies from you!



BUILD A CUSTOM TANDEM FRAME

PART III

by Rodney Moseman

We reach the moment of truth. In this text I detail actual construction of a frameset. I suggest for those of you who have not read the first two parts of this series to write the editor for copies.

I have learned over the years some tips I can add at this point. As I share my experiences, you must realize that no matter how careful or vivid the description, nothing replaces experience and practice. Experience only comes by doing. So don't be afraid of making



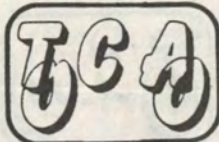
FIGURE # 2

a mistake or doing something wrong. Try to accept the concept that a mistake is a powerful teaching tool.

Many times as I was growing up I heard elders recounting life's embarrassing moments and the lessons learned with a fond glint in the eye. If you stop to think, your most dramatic learning experiences were probably the results of embarrassment, physical pain or financial discomfort. So if you cut a tube too short, count it as a lesson you need to master further. I would venture to guess that there is not a framebuilder alive that has not mitered a top tube so that the angles, instead of being parallel, are actually directed towards each other. We all pray for some short customers so we can use up that odd short tube that haunts us on the shelf.

One mistake that is all too easy to make it so spend too much time visualizing the finished product without giving any thought to how the project will look at various stages of construction. A just-brazed or silver soldered joint can be a very discouraging sight when you have to clean and prepare it for the finished paint job. Take the project one step at a time and try to realize your limits of frustration. When you reach that limit, lay down your project and walk away while you are still in control.

*Mitering is a time-consuming and tedious task for the beginner. If the work height is too high or too low you cannot get the proper feel and wrist action, so try to find the right height for your build. Plant your feet in a stance that allows a smooth straight-line forward arm motion with a smooth follow-through. Remember, a file cuts only on the forward stroke and not on the backstroke, so apply pressure only on the forward movement. Never put pressure on the backstroke or you will dull your files. Apply only enough pressure so that you have a feel of the file cutting the tubing. Never force your tools. A twisting motion of the wrist when mastered



FIGURES # 6,4

will give the proper radius to your miter. Check your miter frequently, noting the areas needing the most attention.

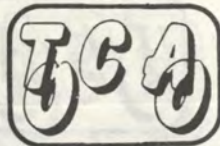
*Brazing and silver soldering are other skills that improve only with practice. For most of my work I find that a number 2 tip with a neutral flame will take care of my needs. I use regulators to set my flame rather than the control knobs on the torch handle. For me this works very well and you may want to try it. Keep your torch moving in a circular motion over the area being heated. Begin heating the area at the point of greatest material density and work outward to the tubes. Introduce silver solder or brass to the joint. Make the solder or brass flow through the entire joint and add more at the starting point as needed. NOTE: YOU CANNOT GET GOOD RESULTS IF YOUR TUBES, LUGS AND BOTTOM BRACKET SHELLS ARE NOT SHINY CLEAN. Sandblasting is also very effective as a means of cleaning parts for joining.



FIGURE # 3

Study Richard Talbot's Designing & Building Your Own Frameset, particularly the chart on page 29 showing the color relationship of temperature to heated materials. Practice with your torch by heating scrap bits and pieces of tubing until you recognize the colors. A room or area out of direct, bright light will best allow you to recognize the lower temperature colors.

You can control your heat by various means other than by setting the torch valves: maintaining the distance between flame and frame, and directing the cone of the flame to one side will be part of the skills you will learn to master. Let each joint cool enough to be touched before going on to the next.



This helps minimize stresses and warpage in the frame.

*Cuts, burns and minor fires are a very real hazard so be prepared! Keep on hand band aids and good first-aid materials to take care of cuts. For burns I find the aloe plant is a godsend. Break off a leaf and squeeze the juice on first-degree and mild second-degree burns. It will eliminate all discomfort in less than five minutes. Harsher, more severe burns need medical attention. I also highly recommend a fire extinguisher for those who want to see this project to its finish.

*Selecting and locating materials for this project can be a

problem. Below is a bill of materials for the frame I have been building and describing throughout this writing. I also offer some source material not listed in Talbot's book. Your local bike shop or framebuilder can be a valuable source for your project. When

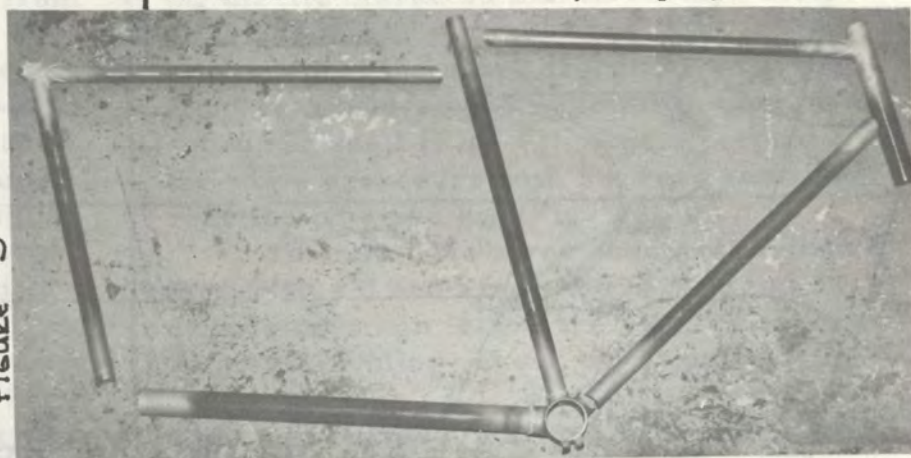


FIGURE #5

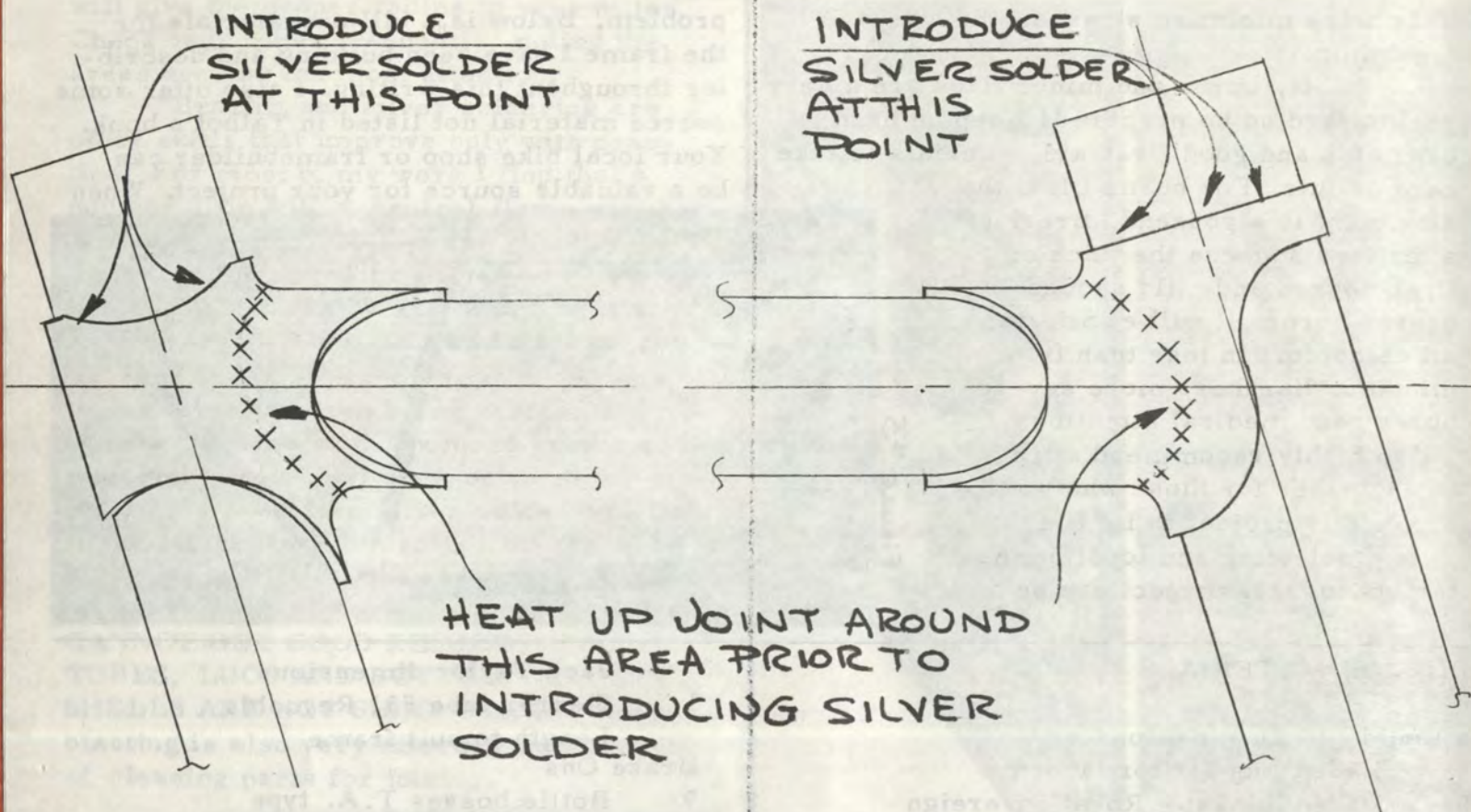
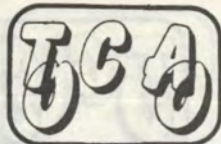
BILL OF MATERIALS

# Req'd	Description
1	Haden Lug Set for tandem
3	Haden lug set - Royal Sovereign without ears on seat tube
4	Haden seat bolt holder #SBH 3
6	Haden seat bolt #SB3 6mm
1	Campagnolo Dropouts #1010
1	Haden Fork Crown for Jack Taylor fork blades
2	Seat tube 4130 chrome moly 1 1/8" o.d. x .035 wall x 24"
1	Downtube 4130 chrome moly 1 1/8" o.d. x .035 wall x 26"
1	Head tube 4130 chrome moly 1 1/4" o.d. x .035 wall x 12"
2	Top tube 4130 chrome moly 1" o.d. x .035 wall x 26"
1	Bottom tube 4130 chrome moly 1 1/2" o.d. x .035 wall x 25"
2	Chain stays 531 Reynolds
4	Seat stays 531 Reynolds 9/16 o.d.
3	Lateral tubes 4130 chrome moly 9/16" o.d. x .035 wall x 60"
1	Bridge tube 4130 chrome moly 1/2" o.d. x .035 wall x 12"
2	Fork blades 531 Reynolds

- 1 Jack Taylor dimensions
- 1 Steerer tube 531 Reynolds
- Length to suit frame
- Braze Ons
- 9 Bottle bosses T.A. type
- 1 pump peg
- 1 bottle boss reinforcement (for pump peg)
- 1 chain hanger
- 1 brake cable arch/w. adjust. barrel
- 4 cantilever brake studs
- 7 top tube eyes
- 14 cable stops Andrew Hague type
- *Note Reynolds has just made available
- 1) a tube set for the Haden lugs which should be available by the time you read this. Their tube set uses a pair of laterals that run from head tube to seat stays similar to the Schwinn mens/mens frame
- 2) Columbus and Cinelli also have tandem tube and lug sets.

Additional sources: chrome moly tubing-
Dillsburg Aeroplane Works, R.D. #3
Saw Mill Rd., Dillsburg, PA 17019;
tube sets, lugs, braze-ons- Greenspot
Imports, P.O. Box 235, Cornish, ME
04020

FIG # 1

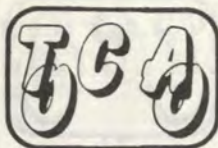


contacting persons via mail to request information, using a self-addressed-stamped-envelope of ample size goes a long way in gaining a reply.

Now, construction starts by preparing the lugs and bottom bracket shells. Clean the edges and any rough spots. You may want to trim and reshape the lugs in a similar manner to the bottom bracket shells described in the May article. I chose to not use the lugs in the set, but will use the royal sovereign design manufactured by Haden. The seat lug is without ears for the binder bolt, so a lug has to be brazed to the lug for clamping the seat post. Generous brass fillets allow me to sculpt the seat lug in a more appealing fashion. Should you decide to do the same, the leftover lugs can be used for practice to gain the feel of the torch. In fact, I suggest you purchase a couple sets of inexpensive lugs and some extra tubing for practice.

Check the fit of the tubes in the lugs and bottom bracket shells. If you find the fit is too tight, file or grind the inside diameter of the lug into a smooth fit. When the tubes fit, check the angle of fit against the angle you designated on your drawing. If you do not know the angle you want, go back to the drawing and establish what it should be. The lug that can cause you some problems will probably be the head tube/downtube lug. If your top tube length varies in either direction from a nominal 22.5" length, then this angle will probably require some lug adjustment. Sometimes a little cold forming is necessary by applying pressure in the desired direction between the two tubes and tapping the lug with a small hammer. For large variations you might need to heat the lug with the torch while applying pressure and persuading with the hammer.

Make sure the lugs and tube ends to be joined are shiny clean. Once the surfaces



are clean, avoid touching them because even transferring the oils or dirt from your hands can cause havoc. Set your angle jig to the head tube angle, apply a generous amount of flux to the tube end you are joining, and proceed to assemble the head tube and front top tube into the prefluxed internal lug surfaces. Clamp the tubes in the jig and double check your setup for accuracy. Make your head tube longer than necessary so that it can be trimmed to length later. The same applies to the seat tube. This extra length allows a natural area to introduce silver solder to the joint which can be cleaned later with a minimum of fuss.

If you have checked everything and are sure of your setup, light the torch and heat the area all over. Concentrate the heat where the two tubes intersect. When the flux begins to turn clear and watery, you are approaching the temperature at which silver solder can be used. Start by introducing silver solder to your jointures at the area that will be later cut off and faced for the headset. As you introduce silver solder, move your torch in a circular motion. Pull the solder into the joint until it eventually flows completely through the joint and into the very points of the top tube end of the lug.

As you are doing this, keep a close watch on the heat build-up. Move your torch over the whole lug and heat new areas as the silver solder flows into the joint. If progress stops, the joint is probably coated with a dark black carbon build-up. The joint will spit and sputter when silver solder is added. You've reached the point of no return. Let the tubes cool in the jig, then remove the tubes and clean the scale. This is a laborious task made simple with a sand blaster. However, a wire brush, emery cloth, or steel wool with elbow grease and patience will do the trick.

Once everything is cleaned try again. Apply flux and clamp in the jig and try the torch again. This time watch your heat more carefully. (See figures #1 & 2.) Let the tubes

cool in the jig. When cool to the touch, remove from the jig and clean. At this point the excess silver solder can be removed and the lug points thinned with a file. Finish the lug with emery cloth until shiny, removing all file marks so that no further clean-up is required.

Repeat the same procedure with the front seat tube/bottom tube (boob tube) and eccentric shell (Fig. #3). Again, repeat the same procedure with the rear seat tube/rear top tube and lug (Fig. #4).

You now have three such assemblies (see Fig. #5) and are ready to flux and assemble the main frame section as shown. After assembling, check the alignment jig and string (Fig. #6). When you are satisfied with the accuracy of alignment, take your torch and tack each remaining joint with just a spot of silver solder. Let each joint cool before spotting the next. Check your alignment after each spot.

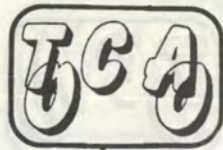
In the next issue I describe venting, building the rear triangle, adding the laterals, and constructing the forks. Also, for those of you coming to Tandem '83 at Cape Ann I will have the frameset built up as a complete bicycle using some of the latest components available--Bio pace chain rings and some mountain bike components suitable for tandems.

[Ed. For copies of parts I or II, send a check payable to Tandem Club of America, c/o my attention. Part I costs \$1.00 to duplicate and mail. Part II costs \$1.50]

Catch "Em If You Can!!!

For Sale: "Calvert Express" 500 miles on frame and wheels, many new parts. 25.5/23.5, x-over drive, 18 speeds, light blue met. Imron. Asking \$1900 or best offer. Steve Calvert, 1395 Taney St., Eugene, OR 97402.

For Sale: Tandem-carrying 1977 Dodge Maxivan 16K miles, raised roof w. custom rear tandem rack. Dwight Kitchens, 123 Goucher Way, Churchville, MD. 301-734-4207 betw. 6 & 9.

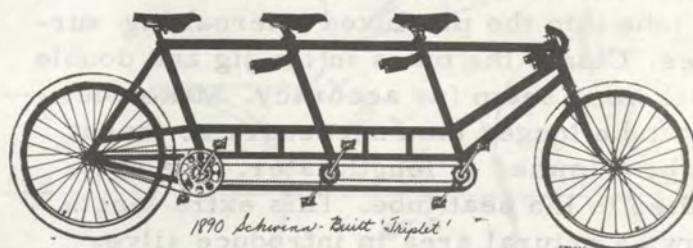


AH, THOSE WERE THE DAYS

The year was 1895. The bicycle craze was already four years old when Arnold Schwinn and Company was formed. The popularity of the bicycle was growing by leaps and bounds; the demand was tremendous. There were over 300 bicycle factories in the United States making the bicycle industry one of the largest in the country, if not the largest at that time.

America was experiencing a great social change. The bicycle gave people the freedom to move swiftly through the countryside as never before. Women of the day were experiencing a fashion revolution. A woman a wheel was an independent creature, free to go whither she will. This, before the advent of the bicycle, was denied her. A young couple on a tandem were at last free of the chaperone. What a wonderful machine the bicycle was.

Everybody wanted a bicycle. Purchasers waited months for a bicycle plus paid hundreds of dollars for some models. This



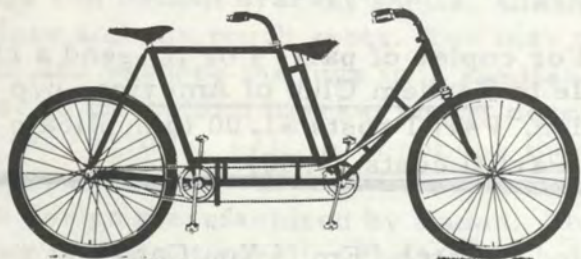
1890 Schwinn-Built 'Triplet'

was a great deal of money at the time. In 1894, the average yearly income was \$300 a year.

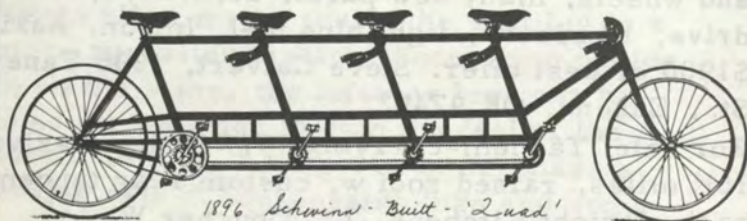
The great bicycle boom only lasted four more years and then collapsed. Public transportation and the motor car contributed to the decline of the bicycle, plus, by 1899, everyone already had a bicycle. And, of course, a bicycle lasts forever.

Only Schwinn and Columbia Bicycle Company have survived until the present. Why did Schwinn survive when others failed? From the very start, Schwinn only made quality bikes. They used only the best paints and components available at the time. There are Schwinn bicycles over 50 years old still with the original high gloss paint put on by the factory. Schwinn Bicycle Co. of 1895 also offered a very extensive line with a wide range of sizes and models. They were very big in tandems of all styles, a few of which are illustrated here. The standard tandem sold for \$140 and weighed approximately 40 lbs. It featured dual steering as did the family tandem. Generally it was held that a lady should always ride in front where she could view the scenery.

Schwinn sponsored many races. The famous "world" team broke many records with pacing tandems. Schwinn produced three, four, five, and even six seated pacing machines. Triplets were also used for

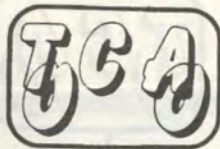


1896 Schwinn-Built Standard Tandem

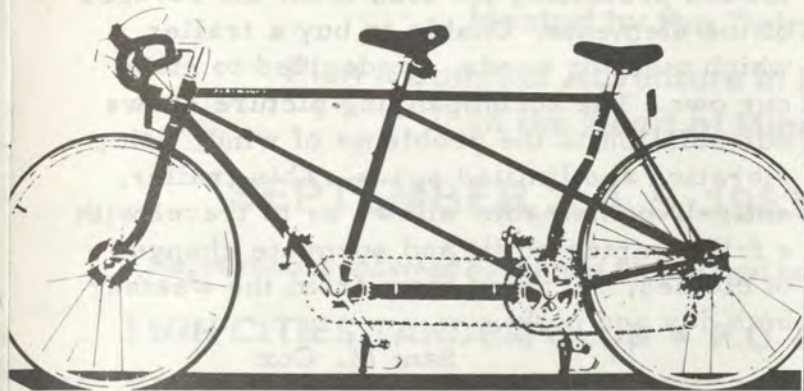


1896 Schwinn-Built 'Quad'

L. Rehn



touring outings of the day, as seen in old photographs. The frame designs on all those machines were somewhat unusual by modern standards. What would Archibald Sharp* think since none of these machines were perfectly brazed structures? Perhaps in the case of pacing bicycles, the four horizontal supports were sufficient to resist



bending.

Have any pacing tandems survived? If so, they are a well-kept secret. Perhaps someone in the Schwinn family has one in their basement. The factory does have an antique bicycle collection not open to the public, and its contents are somewhat a mystery. One thing known for sure, these bicycles moved fast, and broke many records. The daily sports sections of the newspapers were crowded with stories of their accomplishments. When the pacing motorcycle came on the scene, the pacing bicycles were no longer needed. Then the metal scrap drives of the World Wars were held and almost nothing was spared. Of the million plus bicycles of all types built from 1890 to 1900, only a few hundred remain today.

I have looked for almost 20 years, trying to find a bicycle from this period, and I have found only one. It hangs proudly on the wall of my home. Whenever I look at it, I think of the great bicycle craze of the 1890's.

Steve Reker

*Archibald Sharp- Bicycles and Tricycles, Their Design & Construction 1896.

WON'T DROP OUT

Phil Wood tandem hubs with the bolt-type axles can be installed so that your front wheel will never drop out of the forks and your rear wheel will never be out of alignment.

Instead of building your frame and forks with production dropouts, make custom dropouts out of 3/16" steel plates. Make a hole for the Phil axles rather than a standard slot. The left dropout should be installed with an undersized hole, to be enlarged to the proper size with a rattail file. Use a built-up wheel as a guide to ensure proper alignment.

Custom dropouts offer several advantages: If your framebuilder trims the excess length off the narrow end of his seat stays and chain stays for increased frame rigidity, dropouts can be designed to be a perfect fit for the increased diameter of the stay ends. Also, multiple eyelets for racks and fenders are possible.

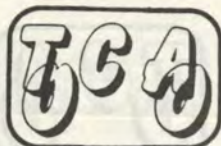
Finally, if you make the dropouts out of stainless steel plate, they can be polished to a mirror finish eliminating the rust and flaking associated with chromed dropouts.

Thomas G. Mossman
12917.5 San Francisco Rd.
Sylmar, CA 91342

A HORSE OF A DIFFERENT COLOR

Anyone who joins the Tandem Club of America loves tandems, but have you considered some of the disadvantages of a twicer ?

Captains say, "What disadvantages?" But how many of you captains would enjoy tandems as much if the biggest part of your view consisted of a twelve inch perspective of someone else's shoulder blades, while nursing a terminal case of "blazing saddle?" **continued on page 19**



ON OUR OWN

In answer to your "pathetic plea" I'm sending these thoughts and ideas from the hinterland. Your newsletter demands member support and I'm fed up with the "pablum" from the slicks. We should not be misled into thinking that what we read in the mags is as bland and innocuous as it appears. It would be naive not to be aware that much of it originates in the advertising department. While it may appear to be news, editorials, and how-to-do-its, the slant and cant is subliminally directed at the consumer market and encourages the cults of status, class, and conspicuous consumption.

Marge and I are backpackers, so we have found it helpful to adapt these skills to tandem touring; we are prepared to camp out when no motel is available. Self containment permits a very flexible schedule as there are many more campsites than motels in our section of the West. While meals can be delayed or missed, sunset cannot be postponed. So we take the very minimum of food and cooking gear depending on soup, cocoa, coffee and brandy to meet our emergency and early morning needs. The brandy may be for either emergencies or early mornings or both depending on weather, and temperature and exhaustion. Backpackers, though, do not have to contend with the disruptive forces of wind and vibration. Thus our first experience with bike touring in stormy weather was a near-disaster. Plastic sacks and and bungee cords which seem tight and secure in the morning's bright sun become flapping leakers given some wind, rain and a few hours of vibration. The problem is further compounded by the fact that travelling gear for two does not make a tight, compact bundle as seen in the pannier ads. Rather, it makes an unwieldy mountain of sleeping bags, foam, tent, etc. Even applying the most severe limitations of our hiking experiences, gear for two on one bike is still a mountain. Our solution to these problems was a trailer.

At 63 years, neither of us has any interest in traveling with children, so we were disappointed to discover that most bike trailers are designed for local, fair weather hauling of children or groceries with little thought toward protecting the load from the ravages of the elements. Unable to buy a trailer which met our needs, we decided to make our own. The accompanying picture shows our solution to the problems of wind, rain, vibration and limited space. This trailer, entirely homemade, allows us to travel with a full camping outfit and adequate changes of clothes, securing them from the weather both day and night.

Sam M. Cox
POB 1476
Tubac, AZ 85640

WHAT'S IN A NAME:

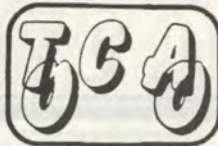
If a bicycle for two is a "twicer"
Is a bike for three then a "thricer?"
Thus a "oncer" for one, must be true
Now what do we call one for thirty two?
These "cutesy" names to me seem quite crazy
Mind boggling no doubt for the original Daisy.
Lets stop silly names, I really can't stand 'em!
A bicycle for two, let's call it a tandem.
Marge Cox

MIDWEST RALLY

HOW DID THEY DO

IN '82? GREAT!

Last year's Midwest Tandem Rally, hosted over the Labor Day weekend by 6 QCBC



tandeming couples, proved to be the most enjoyable ever staged. 79 couples arrived to register on Saturday, Sept. 4, 1982. Said one of the registrants, "This is really great. I've never seen so many tandems in one place before today. I just love it. This is going to be a great weekend!" His enthusiastic attitude and excitement over the number of tandems was characteristic of the 160+ cyclists at the Abbey Inn of Coralville.

Saturday started with a sunny, blue sky touched by just a whisp of a breeze. Tandems present included 32 from Iowa, 24 from Illinois, and some from Minnesota, Missouri, Kentucky, Alabama, Colorado, Kansas, Michigan, Nebraska, and Wisconsin. Tandems ranged in all designs and types from Dick Paulo's homemade quad to tandem kidbacks, tandem/buggers, a Jack Taylor triplet, to Santanas, Gitanes, Motobecanes, Paramounts, Jack Taylors, Teesedales, and other custom machines. Ages ranged from 3 to 60 year-old stokers, and from teenage to sexagenarian captains.

The first ride of the weekend was a 24-mile social ride around the Coralville Reservoir and Lake MacBride area at 1:30 p.m. At the 11-mile mark was a cookie and social stop with abundant refreshments. The short, scenic ride was just right to become acquainted with other riders and to give enough time to visit the dam.

No formal program was planned for Saturday evening. After supper, MTR had two projectors and a screen for slides and movies, including the QCBC's (Quad Cities Bicycle Club) "TOMRV Weekend." The evening was informal and relaxed with several discussions of tandem equipment, cycling tips, past tours, and some roller riding.

Sunday's ride featured the Amana Colonies. While the weather was not as perfect as on Saturday, it was very nice. Promptly at 8:15, 79 tandems eased out onto U.S.

6 and formed a double line that stretched for more than a quarter of a mile. The route then followed Iowa 149 into the Amana Colonies and allowed for options of circling the Colonies to the west or from the east. By 2 pm when the sag wagon left Amana loaded with purchases and headed to the next sag stop, rain was falling. Instead of dampening riders' spirits, the light rain helped to cool some of the day's heat. Riders praised the picturesque route which allowed a long ride for those who wanted to ride, or shorter mileage for those who wanted to spend time in the villages.

Sunday evening's buffet at the Carousel Inn was followed by the evening's program: Bill and Marcia Cameron's (of Elgin, Illinois) slides of their Scottish Highlands tour. Bill Langan gave away \$900 worth of door prizes solicited from over 20 donors. The Minneapolis-St. Paul area was chosen for Labor Day Weekend of 1983. The Twin Cities Tandem Club, with over 60 tandems, will be the hosts. Finally, 100 donated water bottles were handed out as cyclists left for the evening.

Monday morning's wrap-up ride was to Iowa City for a tour around town or to West Branch for a tour of the Hoover Historical Site. Because of poor weather, rides were cancelled and the Rally officially came to a close.

Organizers Bruce and Becky Perry, Denny and Paula Peterson, Bill and Pegi Langan, Paul and Cindi Scheibelhut, Ray and Pam Torresdal, Don Davis and Molly Teigland did a very good job making sure the job was done right. Many riders were impressed with the organization, talent and diversity of the QCBC. The committee for their part felt the weekend went smoothly and were relieved that the weather cooperated until Monday. The QCBC may again host the rally in 4-5 years.

Dennis Peterson
4618 Main Street
Davenport, Iowa 52806

GRAND CANYON TO MEXICO ALMOST ACROSS ARIZONA BICYCLE TOUR

1017 N. FIRST AVE., TUCSON, AZ 85719

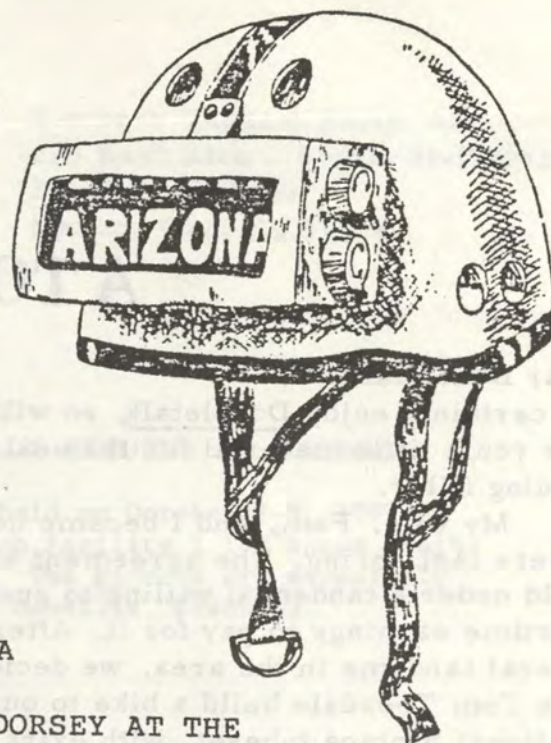
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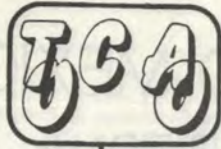
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**36558 MORAVIAN
MT. CLEMENS, MI 48043**



A TOUCH OF IOWA

Dear Doubletalk:

We certainly enjoy Doubletalk, so will try to give you a little material for the next issue needing filler.

My wife, Pam, and I became new tandem owners last spring. The agreement was that I could order a tandem if willing to spend my overtime earnings to pay for it. After riding several tandems in the area, we decided to have Tom Teesdale build a bike to our specifications: Santana tubeset, with extra room for the stoker, and geometry and braze-ons befitting a touring machine. My overtime lasted just long enough to get the thing paid for and it was done shortly thereafter.

We both enjoyed tandeming even more than we anticipated and so our thoughts turned toward a vacation via the new bike. Several of our tandeming friends had worked together to organize the '82 Midwest Tandem Rally and it was from this group that we invited 5 couples to my folks' farm in NE Iowa for a weekend. We chose the first weekend in October as a good date for leaf watching and riding. Friday afternoon some campers set up tents in the farmyard and some of us cheated--using the extra bedrooms.

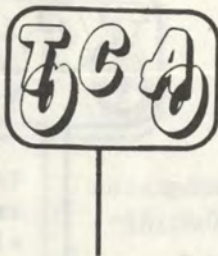
Starting in the very NE corner of the state in Waukon, we rode north on Highway 76. A couple of miles of gently rolling hills turned into a several-mile downhill run to the Upper Iowa River bottoms. We turned onto a blacktop and followed the Upper Iowa River to the Mississippi. Near New Albin we happened on a state line marker that, incredibly, had Minnesota misspelled. The group followed the Mississippi down to Lansing for lunch. Rain threatened as we rode out of the river valley to, what is known by the locals as, "the Elon Road." This is a ridgetop road which provides miles of scenery in many directions. In Waukon, with bikes

back on rooftops, it started to pour. We thought ourselves quite brilliant for having taken a shortcut to the cars.

Sunday dawned, a picture-perfect autumn day. We left the farm and rode into Decorah for breakfast. I had coerced my mother into babysitting the 6 children of our friends on Saturday, but Sunday's ride wasn't as hilly. We made quite a caravan with 6 tandems and 6 kids in 4 trailers. Leaving Decorah, we went through Luther College's beautiful campus, and headed west on "the Pole Line Road," again along the Upper Iowa for a brief stretch. After climbing out of the river valley, we turned south toward Spilleville and stopped to look at the Bily Clocks Museum, and again to view the partially reconstructed fort in Fort Atkinson. The children had a good time chasing around the fort, the only one built to protect one tribe of Indians from another. Next was rolling, rural countryside back to the farm. (Don't ask me how many more hills there were. My stoker is convinced I can't count beyond "just 1 or 2 more.")

Friends drove our car to the Quad-Cities so Pam and I could spend the week riding back. Our Monday destination was Hampton, IA, @ 105 miles, and dinner with friends. We kept to blacktop country roads made for biking and sight seeing. A few miles west of the tiny town of Waucoma, we spotted a farm with several deer and a llama? !? And a few miles further we made the obligatory stop for pictures at the Little Brown Church in Nashua, IA. We made Hampton in time to see a TV special on Sue Notorangelo's record bicycle crossing of the country. Tuesday was our only encounter with rain while riding for the week. Coupled with a headwind, it was a

1983 Southern Tandem Rally



Southern Tandem Rally '83
c/o Karl Rice - Leslie Stallknecht
211 Buford Place
Macon, Georgia 31204

SOUTHERN TANDEM RALLY RETURNS TO GEORGIA

The Fifth Annual Southern Tandem Rally will be held on October 7-9, 1983 at beautiful Callaway Gardens, a 2500 acre garden and beach facility 1 1/2 hours southwest of Atlanta on U.S. 27, in Pine Mountain, Georgia. The gardens are especially beautiful in October, which is the blooming season for camellia, sasanqua, chrysanthemums, blazing star, and witch-hazel.

LUXURY CABINS

Housing will be in Callaway's 20 luxury 2 bedroom cabins. We stayed in one over Thanksgiving and it was really nice. Tandem Couples will share these 2 bedroom cabins, which are clustered together in a beautiful wooded area near the longest man-made sand beach in the world. The fully equipped cabins are furnished and have modern, completely equipped, kitchens with all utensils. Each cabin also has its own outdoor charcoal grill. Save money by bringing your own food, or shop in the fine market in Pine Mountain, only two miles away. There are also, of course, restaurants available nearby.

MAGNIFICENT RIDES

We road tested our rides and maps over last Thanksgiving. Rides will offer a choice of terrain and distance to accomodate all riders.

MAPS have been drafted by Jack Goertz and Phil Winters, the original founders of the STR. Reduced from official county map sheets, these are not mere strip maps but, rather, offer complete details of the area. The adventuresome can use them to explore; the lost can use them to find their way!

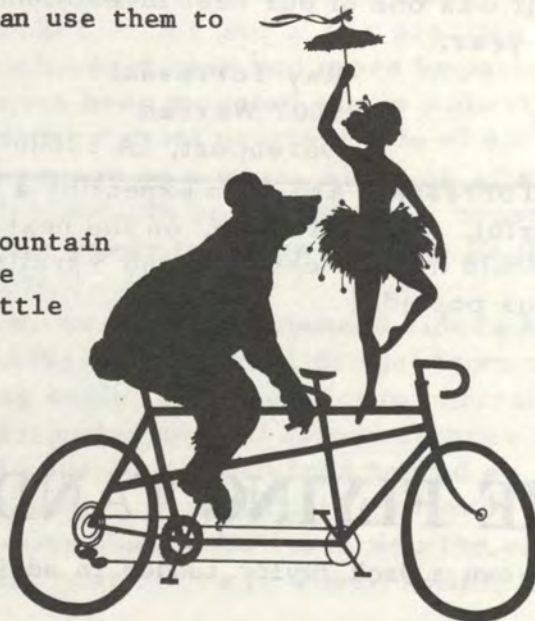
SCHEDULE. We plan three days of riding.

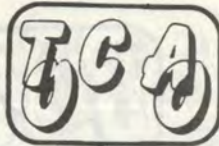
FRIDAY--1:00 p.m. ROOSEVELT RAMBLE

You chose: 30 or 45 miles, rolling or mountain terrain. All variations go through White Springs for an optional tour of FDR's Little White House and Museum (extra charge).

SATURDAY--9:00 a.m.

A ride over the mountain to Hamilton, GA. Visit the antique shops. Expect gorgeous views and breath taking descents. Climbs can be done without destroying your knees! Shorter





long 75 miles to Ames. We spent Tuesday evening and all day Wednesday there visiting acquaintances from school days. It was a good day to lay over because it rained most of the day. Thursday was great--tailwinds and sunshine. We rode 40 miles to Marshalltown for a leisurely brunch with friends and then turned eastward to take full advantage of the wind. We rode past the Mesquakie settlement at Tama and ended up in Marengo on the west edge of the Amana colonies. Friday morning the weather forecast was not good at all, so we decided to shorten our trip by a day in order to beat the rain home. After a brief stop at Iowa City where a bike shop was having a great sale (but full panniers helped save our pocketbook), we headed for Davenport and home. Those last 30 miles really made us feel we had been on bike seats for a week!

By the end of the week we covered about 480 miles in 6 days of riding. We had a great time showing our friends around NE Iowa and stopping to visit many others along our route. I'm afraid that this has only whetted our appetite for bike touring. The season ended with 2000 miles or so on our tandem and we think it was one of our best investments of the year.

Ray Torresdal
5007 Warren
Davenport, IA 52806

[The Torresdals are soon expecting a little buggerful. Now let's see, on the next ride that would mean 7 children and 5 trailers? Keep us posted.]

THE FLYING TANDEM

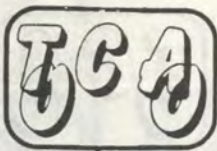
We own a Jack Taylor tandem in addition

to our single bikes, and although we had traveled by airline several times with the singles, we had never attempted it with the tandem. However, in August 1982, we were planning a trip to Denver, Colorado to attend a convention. After some discussion, we decided that this would be our big first try with the tandem. Due to the short supply of tandem boxes, I decided to tape two single bike boxes together using filament tape.

To pack the bike, the wheels and pedals were removed, and I installed homemade brace/support fixtures in each dropout. The rear brace/support keeps the rear derailleur from being bumped from the bottom or the sides. The front brace keeps the forks from being bent. The brace/supports also help level the frame in the box. They are kept in place using the quick release skewers. Foam padding was packed under the bottom brackets and around the frame, and our small bike bags were used to fill up empty spaces. Then, we were off to the airport using the station wagon to haul the boxed bike. The airline handled the long bike box with no apparent problems. They charged us the \$14 for each leg of the flight, as is usual these days.

Upon arrival in Denver, I called the hotel for transportation for a "long box". Their van barely handled the length. We unpacked the bike at the hotel, and it was safe and undamaged. I made arrangements for storing the bike box and padding during our stay, including the time we would not be staying at that hotel. Part of the planned convention activities included tours in the Denver area. Instead of using a bus or personal car for the tours, Jody and I toured by tandem. Real class!! We rode over 80 miles in three days just doing the tours in the Denver area. We really got to see Denver this way.

Following the convention, we departed for Colorado Springs. We took an easterly route to avoid as much traffic as possible. The ride was beautiful but not uneventful. About 50 miles south of Denver, we broke a rear shifter cable. At that time, I had not yet seen the wisdom of carrying spare cables, since they rarely break. However, since we had more than 20 miles to go to Colorado Springs, a good deal of it in hills, I needed the rear derailleur. My "solution" was to



adjust the high limit adjuster screw to the cog I needed for each major stretch of road. Then, using the front derailleur, we had use of three, widely spaced gears. When the grade changed substantially, I reset the adjuster screw to another cog to give me a different three gears. In this way, we made Colorado Springs; on a Sunday afternoon. By a stroke of luck, we found a bike shop open on Sunday and rode there. They did not have long tandem length cables, so I was forced to tie two cables together. That evening, I epoxied the knot to keep it from slipping. Crude, but it worked fine until we returned home.

The next day, we rode to the bottom of the Pikes Peak Cog Railroad. We locked the tandem near the office, and took the train to the top. The ride was spectacular! The aspens had just begun to change color and the clouds of the previous day had passed. The only problem was that the wind was blowing and the wind chill effect was about zero degrees F! It took all of our extra clothing to keep warm at the over 14,000 feet elevation of Pikes Peak. The ride down the cog railroad was just as spectacular as the trip up had been, and the temperature contrast was just as remarkable. At the bottom, it was a warm 75 degrees. After warming up, we toured the Garden of the Gods and Colorado Springs.

The return trip to Denver was uneventful by contrast, and we returned to our hotel. That evening, I retrieved the bike box, and we packed the tandem for the return trip. The next day, we departed on the flight home.

Later that evening, we arrived home and unpacked. The bike was reassembled and checked for damage. Happily, the tandem was fine.

We learned several lessons from this trip. First, we now feel more confident about airline travel with the tandem, but only to a location where you can store your long bike box or where you could obtain new boxes from a local bike shop for the return trip. Second, I now carry tandem length shifter and derailleur cables in my tool kit. Third, I know how to tie shifter cables in an emergency, and how to use the rear derailleur as a single speed cog until you can get a cable. Finally, we relearned both the

necessity and the satisfactions of being self sufficient when traveling.

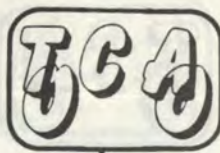
Earl and Jody Martin
11120 Rokeby Ave.
Garrett Park, MD, 20896

DOING IT IN MASS.

"If you think I am riding from Westport to Mt. Monadnock and climbing that mountain... think again." With that Betty effectively deflated my vacation plans for the summer of '82... or so she thought. Robert, my 11-year old son, has been carefully watched for signs of "C. T. T. C." (Critical Top Tube Clearance) for the rear of our 22/20 Mercian. By the end of June it appeared he measured up and plans were on again for a cross-Massachusetts Tandem ride. A check with the LAW Touring Information Director for Massachusetts gave me a satisfactory route and free maps from the Massachusetts and New Hampshire Highway Departments helped me plot it.

Robert and I practiced riding around the neighborhood. He was suitably impressed with the speed one could attain on a tandem (we blew the socks off several of his playmates). I managed to mount an IKU speedometer for one of our practice rides which would have had more impact if it could have been mounted where Robert could see it. A final practice ride of 43 miles was made on a warm Alabama afternoon with minimum complaint, so I hoped we would be ready to tackle the New England countryside.

Now, as most experienced riders know, a loaded bike is a different animal from a screaming eagle. It takes a lot to control my tandem under normal circumstances and placing 30 pounds of dead load behind an active youngster does little to improve control. One thing I did learn was the value of frequent gear shifting. Those rolling hills



of north central Massachusetts gave my cables a workout. We also made good use of corn starch sprinkled generously on strategic body locations.

Our first day of some 13 hours covered most of the route from my boyhood home (Maple Lane Farm in Westport, Mass. for those of you who rode Tandem '81) to Mt. Monadnock near Jaffrey, NH.

We had postponed the start by a day due to weather but were rewarded with a partly cloudy, clearing morning. The early portion of our ride was mainly social as we stopped after 4 miles to let Betty's mother know we were on the way, and again after 15 miles to check with my other son, Glenn, who would be riding with his uncle to New Hampshire later in the day. Finally, our lunch stop at 37 miles was at my Aunt's in North Attleboro. We corrected a mechanical problem during lunch (or so I thought). The elliptical bottom bracket had worked loose and projected an inch beyond the shell which caused the chain to bind occasionally. Late in the afternoon we had to borrow a 12" adjustable wrench from the Hudson Fire Department to again "correct" the flaw.

My relatives had not seen the apparently southern ad for Gatorade in which the person who really needs a rest tells his partner, "Sure looks like you could use some Gatorade." I used that line several times during the afternoon as the miles passed and the temperature rose. We were passed by two single riders near Leominster. They gave us directions to a local eatery for which I was grateful. It had been about 6 hours since lunch. Robert wanted to camp in a "real" campground, so I asked where one could be found. It was 7:15 and the nearest site was 15 miles away. So we donned leg lights and I strapped my reflective-taped jacket to the rear carrier. I very much dislike riding on strange roads at 25+ mph on downhills, especially with lights only from passing cars to light the way. Most of the road had a good shoul-

der so we made it without incident. But riding at night is not recommended.

We stumbled onto the campground around 9:30 p.m. having completed 109 miles and were now just 9 miles from the New Hampshire border. The following morning was cloudy and rain threatened, so we packed quickly and set off for the mountain. Although we only had 25 miles to go, the cold and slight rain made it seem farther. We stopped to look at a porcupine which had been killed by a car, we visited the Cathedral in the Pines where my parents would bring me when we went to the mountain, and we stopped by a jeweler's to have my watch band repaired. Finally, we shifted into our granny gear and pedaled up to the mountain campground. The gateman ignored my feeble attempt to look composed and said simply, "Site 15." Apparently, my sister had forewarned him of our impending arrival.

It took about an hour to eat brunch, put the tandem in the van, and get dressed for climbing. We hoped to meet my sister's family and Glenn on the mountain.

Robert enjoyed the ride as best he could and I was pleased with his adaptability. It was a pleasant ride and over all too quickly. As I look back, Robert had really come a long way from GEAR '79 when Betty and I towed him and Glenn in the bugger to Chimney Rocks to making his first century ride on Dad's tandem. They grow up fast. So if you find a child adapter won't fit on your tandem, don't despair.

Bob Meader
821 Nassau Drive
Mobile, AL 36608

P.S. Robert says he liked: riding at night...helping on hills (power boost)...going fast...quiet and smooth streets...going downhill...camping in "pup-tent" (tarp)...getting there. He didn't like: almost getting hit by a car who didn't see us...going uphill.

TANDEM '83

CAPE ANN



Discover Cape Ann — at TANDEM '83 August 19 to 21. Come spend a summer weekend with us on the rocky coast of Boston's North Shore. A new experience to delight you — from the fabled art colony of Rockport to the elegance of the historic mansions in Beverly and Ipswich. Long regarded as an outstanding vacation spot, Cape Ann's rugged coastline is an experience you'll not soon forget.

Registration opens at 2:00 p.m. on Friday, August 19, giving early arrivals time to settle into their rooms, explore the Beverly Farms area and greet friends old and new. The hospitality/registration area will be open until 10:00 p.m. for light refreshments, an informal slide show and a gathering place.

ACTIVITIES

"Motif #1", The Paper House, Crane Mansion, the broad, sandy expanse of Crane Beach Reservation, Hammond Castle, and the fishing port of Gloucester are all part of the rides planned for Saturday and Sunday. Other tours take us inland to Wenham and Hamilton, birthplace of General George Patton. Broad tree-lined roads wind through the horse farms that abound in the area — the Myopia Hunt Club and the home of the U.S. Olympic Equestrian team, to name a few. "On-the-road" luncheons continue the same, fine gustatory tradition of past Tandem events.

The TANDEM-Mart and Swap Meet is expanding, and not just bike parts. Bring your small crafts, foods, etc. to display and sell on Saturday afternoon. Tandem frame builders and dealers are encouraged to show — "on stage" — Friday evening.

ACCOMMODATIONS

The quiet country setting of Gordon College, a religious liberal arts school, offers comfortable accommodations in modern two to three room suites and dorms, sharing a common living area and bath. Once known as Prince Mere, the estate was considered as a possible site for the U.N. Located in Wenham, Massachusetts, Gordon is a short, 40-minute drive, just north of Boston. Cape Ann's terrain is gently rolling with postcard ocean views and quiet, tree-lined colonial back roads. Daytime temperatures are moderate and evenings cool, from the sea breezes of the Atlantic.



Crane Beach

The cost for TANDEM '83 is \$120 per team and includes Friday & Saturday nights' lodging, bed linens (no facecloths or blankets) and towels, Saturday breakfast through Sunday luncheon, registration, maps, patches, etc., with appropriate charges for children. Two children, under six, are permitted sleeping-bag space on the floor (no keys or linens). Any additional children or children over six are required to occupy a bed and pay the housing fee. Check-out time is 6:00 p.m. Sunday or stay and enjoy until Monday, 1:00 p.m.

Child care for children out of diapers will be offered on Saturday. An activities program is offered similar to TANDEM '81. To properly plan and supervise the program, advance registration and payment are requested.

The Eastern Tandem Rally's second decade is a special time. Discover Cape Ann at TANDEM '83, for the special time we'd like to share with you.

PRE-RALLY "TANDEM INNS TOUR '83"

August 14 - 19, 1983

A week's tour of the Monadnock and Sunapee regions of southern New Hampshire. On each of the five nights, you will stay at a charming colonial inn, the beginning of a memorable summer's vacation. Cost is \$175 per person and a \$20 per person deposit for administrative maps and sag wagon, any part of the deposit not used will be refunded. Limit is ten teams and deposits are due June 1.

Please send a SSAE to Bob and Linda Harvey, 16 Clinton Street, Salem, NH 03079, Telephone (603) 898-5285.

TANDEM '83 REGISTRATION FORM

Please complete all items that apply.

Please print all items.

NAME _____ T-shirt (Male) Size _____ NAME _____ T-shirt (Male) Size _____
 ADDRESS _____ CITY _____ STATE _____ ZIP _____
 TELEPHONE _____ IN EMERGENCY, CONTACT: NAME _____ TELEPHONE _____
 Children, if attending NAME _____ T-shirt size _____ AGE _____ CHILD CARE FEE \$5 _____
 NAME _____ T-shirt size _____ AGE _____ CHILD CARE FEE \$3 _____
 NAME _____ T-shirt size _____ AGE _____ CHILD CARE FEE \$1 _____
 TOTAL FEE IF USING CHILD CARE — CARRY BELOW \$ _____

***** PLEASE NOTE THE FOLLOWING *****

1. Registration CLOSSES July 19, or when 125 team limit is filled, as the college must be paid in full, in advance.
2. Cancellations before July 19 forfeit only the \$15 registration fee. After July 19 refunds of meal & room fees can be made only if replacements are found.
3. Late registration is unlikely except on a replacement basis.
4. Early registrants have priority for nicest first floor rooms.
5. Alcoholic beverages are not permitted on campus. Please respect Gordon College's wishes. Thanks!!

PLEASE READ THE RELEASE AND SIGN (BOTH ENTRANTS)

In signing this release for myself or for the named entrant(s), if the named entrant(s) is under the age of eighteen, I acknowledge that I understand the intent hereof, and hereby agree to and absolve and hold harmless the NARRAGANSETT BAY WHEELMEN, INC., the TANDEM CLUB OF AMERICA, INC., and GORDON COLLEGE and their officers, members, students, and employees respectively, and any others connected with this event in any way whatsoever, singly and collectively, from and against blame or liability for any injury, misadventure, harm, loss, inconvenience, or damage suffered or sustained as a result of participation in TANDEM '83 or in any activities associated herewith. I understand that the NARRAGANSETT BAY WHEELMEN, INC., the TANDEM CLUB OF AMERICA, INC., and GORDON COLLEGE are not responsible for, and are not insurers of, my personal safety during this event. I thus release them, and I agree to save them harmless, from any and all liability arising from my having sustained any property damage or personal injury by reason of their negligence in participating in or sponsoring or planning or arranging the event. I also hereby consent to and permit emergency medical treatment in the event of injury or illness. I shall abide by all traffic laws and regulations and practice courtesy and safety in cycling.

SIGNATURE OF ENTRANT _____ DATE _____ SIGNATURE OF ENTRANT _____ DATE _____ SIGNATURE OF PARENT OR GUARDIAN ENTRANT(S) UNDER EIGHTEEN _____ DATE _____

******* FEES *******

Included in the fee per team are: two (2) five-meal plans, room with linens, towels (no facecloths or blankets), name tags, patches, maps, registration, etc. \$120.00
 Key & linen deposit (Refundable) ... 10.00
 T-shirts # _____ X \$5 = _____

Please indicate the number in your party for: Vegetarian Meal Plan # _____ Children # _____ and

Saturday Clambake Choices: Chicken # _____ Lobster # _____ Vegetarian # _____
 Children # _____ Children # _____ Children # _____

******* FEES FOR CHILDREN *******

Children 6 & over must occupy a bed.
 (Only two children under 6 permitted to sleep on floor.)
 Child (6 & over) # _____ x \$52 = \$ _____
 Child (Under 6) # _____ x \$33 = _____
 Additional children (Under 6) # _____ x \$47 = _____
 Child Care Total (from above) _____

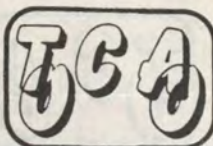
OPTIONAL SUNDAY NIGHT LODGING (No meals) Adults & children in beds # _____ x \$ 7 = _____

(Please make your check payable to TANDEM '83 for this total) TOTAL: \$ _____

MAIL THIS APPLICATION, YOUR CHECK, and a SELF-ADDRESSED BUSINESS-SIZE ENVELOPE TO:

NARRAGANSETT BAY WHEELMEN, TANDEM '83, P.O. Box 1317, Providence, RI 02901

We will confirm receipt by postcard. Travel and pre-rally information will be sent two to three weeks prior to TANDEM '83 in the business-size envelope you have thoughtfully provided. ADDITION & CHECK O.K.????? DID YOU BOTH SIGN THE RELEASE?????



A DIFFERENCE continued

So stokers don't have it quite so nice. But what can be done to improve things?

That's exactly what I've been asking myself. My wife and I both enjoy our tandem, but the rides are generally short. She tried every good-quality woman's saddle and finally settled on a reworked Avocet with a sheepskin cover. But after an hour's ride, Joyce invariably got so saddle sore, that the possibility of making a long tour seemed non-existent.

So what's the answer? I decided that it might be in making a tandem tricycle. Not the kind made by putting a rear axle on a standard tandem, but instead more of a high-tech rickshaw that has 27" wheels, 18 speeds, front drum and cantilever brakes, a rear disc brake and a differential rear axle. The captain's position is completely standard but the stoker sits in an upholstered seat, just above the rear axle, in exactly the riding style of a good recumbent.

This tricycle provides an excellent view and great comfort for the stoker. There is ample room between the riders for children and even space behind the stoker for a huge pack. Another advantage over the traditional tandem is a lower center of gravity and, surprisingly, a shorter wheelbase of just 64 inches. And although you'll never win centuries on a tricycle, they are good climbers.

In an upcoming issue I'll have an article on how to build the kind of tandem tricycle I am making now for Joyce and me.

Thomas G. Mossman
12917 1/2 San Fernando Rd.
Sylmar, CA 91342

ROLL YOUR OWN BRAKE, GEAR CABLES

Since tandems use unusual-length cables, tandemists can find themselves short of a necessary component. However, making one's

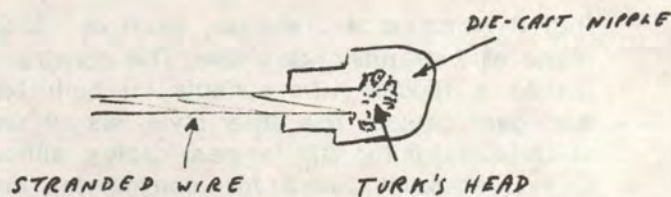


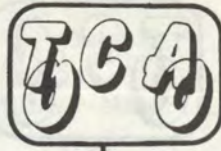
FIGURE 1. MODERN DIE-CAST CABLE END

own cables is so easy and convenient, and also so cheap, that I haven't bought one in years. This technique is not new, for it was used from the first brakes operated by Bowden wires (named for the inventor, who was works manager for Raleigh Cycles) about 1903. I learned it from 1944 Cycling Book of Maintenance. When I was a boy, the bicycle mechanic made up a cable from a roll of wire as you waited. This old technique was superseded by the mass merchandising of cables with die-cast nipples about 1950.

The modern cable end is shown in Figure 1. At the end of the cable its strands are sharply bent and mashed into a lump. Around this lump the nipple of zinc alloy is die-cast. The nipple is prevented from pulling off by the lump, not by the adhesion between the zinc and the wire. You can't duplicate this at home.

The old technique used iron nipples soldered onto the wire, as shown in Figure 2. The nipple has a funnel-shaped hole through it. It is slipped over the end of the wire. Then the ends of the wire are bent out into a cone to fill the funnel. The nipple is then pulled to the end of the wire, the two are soldered together, and any protruding wire strands are filed or ground off. The strength of the joint comes from two factors working together. Fanning out the wire strands provides a large adhesion area between wire and solder, and the solder also prevents the wire ends from closing together sufficiently to fit through the small end of the hole.

First, buy a coil of wire. From a dealer in Wire Rope buy 1/16 inch, 7 x 7 strand, galvanized cable. Do not buy stainless, because solder won't stick to stainless. A 200-foot coil will cost about 15¢ per foot. The 7 x 7 means



that it is made of 7 strands, each of which is made of 7 strands of fine wire. This construction makes a flexible wire suitable for both brake and gear cables. The other style has 19 single strands and is too stiff for gear cables, although it is commonly used for commercial brake cables.

Next make your end nipples. The best nipples for gear cables are the little nuts from the ends of Presta tire valves. Save these for this purpose when you discard tubes. Enlarge the hole to 1/16 inch to accept the cable. A brake cable nipple is shown in Figure 3. They're easiest to make on a lathe. (I made 40 or 50 in one evening for all my bicycles and all expected spare cables.) But they can be made from 1/4 inch round bar very easily with a drill, file, and hacksaw. The outer dimensions are not critical. Just make sure that the nipple fits snugly but not tightly into the socket in the brake lever. The double-cable Mafac lever requires a slightly smaller size than other levers.

To cut cable wire neatly, first solder its strands together where you want to cut. Use regular solder and paste flux, and solder about one inch of wire. Cut the wire an inch or more too long. Thread a brake nipple with the larger hole towards the end of the wire. Thread on gear cable nipples with the slotted end toward the end of the wire. Now cut off the soldered end of the wire and with pliers bend out the ends to more than fill the larger hole in the nipple, then pull back the wire so the spread-out ends fill the larger hole. For gear cables, fan out the ends as wide as the nipple (Presta valve nut) as sharply as you can, then pull back the wire so its bent ends lodge in the slot across the end of the nipple. Apply flux and solder the wire to the nipple. Particularly for gear cables, file flush any protruding wire strands.

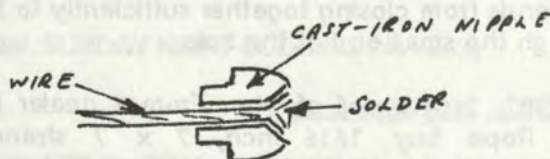


FIGURE 2. OLD-STYLE CABLE END

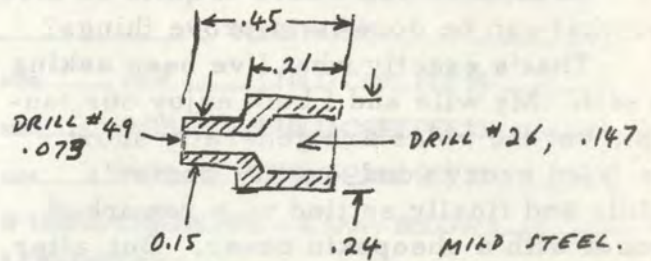


FIGURE 3. BRAKE CABLE NIPPLE

If the flux has cleaned the parts and you have adequately heated them, the soldered joint should be amply strong. However, always test a newly-installed cable. For brakes, squeeze the lever as hard as you can. For gears, pull the lever as far back as it will normally move. I've never failed a brake cable, and only rarely a gear cable. When a cable breaks, always save the nipple. Just melt the solder and shake out the bits of wire, and the nipple is ready for a second use. Also, never cut off the excess length of cable without first soldering its strands together to prevent frayed ends, or you'll never be able to reassemble it if you ever need to disassemble it. Once cables are exposed to the weather, they won't solder.

If in an emergency you need to make up a cable but have no nipple, you can make a substitute. Tie the wire into an overhand knot and pull the knot as tight as you can. Then solder all over the knot. Then hammer the knot into a shape that will fit into the brake lever. Once it fits, cut off the free end of the wire.

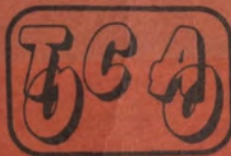
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