

# Spoke'n Word

3	Not the	
	AN HA	
	Spoke	'n Word
	BODIE DI	
	Volume 5 N° 3 NEWS	LETTER September/October 2003
	<u>MINUTES OF MEETING 21<sup>st</sup> JULY 2003</u> Present – 14 members.	<u>MINUTES OF AGM 18<sup>th</sup> AUGUST 2003</u> <u>Present</u> – 14 members and 2 visitors and Martin Spencer our
	Apologies - Scott Anderson, David Clark, Ray Martlew.	guest speaker.
	<i>Minutes of Previous Meeting</i> – Read and accepted. Moved Dawn Thompson, seconded Phil Harris.	Apologies – Mal & Myrene Bell, Milton and Mavis Jones, Eric Barrett.
	Business Arising – There was no business arising from these	Minutes of Previous Meeting - Read and accepted. Moved
	minutes. Financial Report – Closing Balance \$2,261.84 Moved Mal	Dave Clark, seconded Don Smith. Financial Report – Closing Balance \$\$2,261.84. Moved Dawn
	Buckland, seconded Merv Thompson.	Thompson, seconded Ken Ward. The President handed in an
	Correspondence > Letters were received from Kalamunda and Moora	account for caps. Correspondence
	requesting attendance at their respective shows.	Participation in a Christmas Pageant in Claremont in November. It was decided not to participate in this event.
	Maps were received from the Dept of Infrastructure, and magazines from Canberra Bicycle Museum and Moulton	$\triangleright$ Participation in the Bridgetown Heritage Field Day on the 8 <sup>m</sup>
M	Cycles.	May 2004. It was agreed that the club would accept this
N	York Display > 32 bikes were displayed with one tandem from the Motor	invitation. ➤ The Brookton Old Time Motor Show 27 <sup>th</sup> March 2004. It
	Museum as well as pedal cars, which attracted interest. Show and Tell	was decided to enter this on the events calendar. ➤ Merv Thompson presented a newspaper cutting regarding
	<ul> <li>Ken Ward showed a bike – Bowden.</li> </ul>	Big Boys Toys at the show grounds.
	Merv Thompson showed pictures of Riverton Forum and a stamp from Gordon Cycles.	Martin Spencer then addressed the meeting promoting good working relations between his department, the Melville
	Gareth showed pedals and expandable chain ring.	Council and WAHCC, and offering support to the club for
	> Peter Wells showed a part from adjustable handlebars and a left hand crank he had made.	any projects.
	<ul> <li>Mal Bell showed photos of an old bike found at a tip, and is</li> </ul>	General Business → Phil Harris then listed the coming events, which may be read
	<ul> <li>looking for information on it.</li> <li>Alan Naber offered for auction a Cane backpack, 2 26" tyres</li> </ul>	in the newsletter. > Peter Wells advised that club caps are available at \$10.00
	and a basket.	each, and that some shirts are still in stock.
	> John Wilson was welcomed as a new member who rides regularly, and is building a child's trike.	Show and Tell > Phil Harris showed a beautiful pedal car, which he has
	> Supper was shared at 8.20pm, followed by a talk from Alan	restored for his son.
	Naber.	Merv Thompson displayed a Blue Moulton Stowaway, which comes apart into two pieces for transport.
		$\triangleright$ Peter Wells showed a cluster with a left hand thread and 2
		brakes a Webb and a Phillips. He would like to know their ages, and the types of bikes they would have originally been
		on.
Ţ		Ken Ward advised that the bike shown last month by Mal Bell was a Singer.
N		The meeting closed at 9pm.
	NEXT MEETINGS: 15 <sup>th</sup> September Monday at 7.30pm	Articles for Newsletter: The Editor Peter Wells 25 Constantine Court Thornlie WA 6108 (08) 9459 1750
	20 <sup>th</sup> October Monday 7.30pm VCC Club Rooms 6B Hickey Street, Ardross	
	WAHCC Committee - President: Peter Wells 9459 1750 Treasurer: Ray Martlew 9451 1186	Vice President: David Clark 6278 1048 Secretary: Merrill Martlew 9451 1186 Fax 9451 1182
	Historian: Ken Ward 9364 3601	Email – merrillraymartlew@bigpond.com Post Office Box 516 Bentley 6982
	Events Co-Ordination: Phil Harris 9459 7	46 Club Photographer: Mal & Gareth Buckland 9527 9427
	Merv Thompson 9450 2579 David C	lark 6278 1048

### YORK FESTIVAL JULY 8<sup>TH</sup>

#### Didn't it rain, didn't it pour?

But it takes more than the best efforts of old Jupiter Pluvious to dampen the spirits of hardy cyclists, especially if they are ensconced in the snug interior of their motorcars while enroute to the fair town of York for a day with old cars and bikes. But the good thing was that the closer they came to York, the better the weather, in fact the roads near and in the town were quite dry. And for the rest of the day only a couple of light sprinkles had spectators seeking shelter under the verandahs lining the main street of this historic town.

Thanks to the efforts of David Clark we had the use of his very effective and good-looking barriers, which kept the interested onlookers in check, and also protected our steeds. The people from the York Motor Museum offered the use of a motorised tandem, which offer was promptly snapped up by the intrepid Ray and Merrill, who were soon dashing down the street at a great rate of knots (some of them were Granny kinds), after which Ray was heard to say that that was the way to ride a tandem, much easier than having to do Merrill's share of the pedalling as well as his own.

But seriously, the club put on another good display not only of bikes, but also a number of restored pedal cars and trikes, the most spectacular Merv's new creation, from a wrecked Cyclops toy, to a dazzling Stude-baker. And Dave has turned up a very early gents roadster, probably very early twenties, with diamonds worked into the head lugs. Can anyone identify this one? I feel that it will be an Australian machine. Phil had some fun with one of those 'orrible Skate Bikes, but they aren't my cup of tea, I'm afraid. Then Ken turned up with his racing Avanti, and very nice and original, too. Yours truly had a spot of bother with a Sturmey Archer pulley, the second time this part has given trouble, so it seems that recourse must be made to machine up a new spindle before using that bike again. The crowd was a bit smaller than in previous years, but I think the very wet weather in Perth probably cause that. Judging by the remarks passed to several of our members, our presence was appreciated, and it seems that our reputation for putting on a good show is spreading. I didn't count the machines on display, but there must have been around twenty-five or so.

Those taking part were – David Clark, Phil Harris, Ray and Merrill Martlew, Merv and Dawn Thompson, Ken and Joy Ward, Peter and Ellen Wells.

#### <u>THE OLD AND THE BOLD VERSUS THE YOUNG</u> <u>AND THE BEAUTIFUL</u>

The club run around the Canning River starting and finishing at Mt Henry Bridge saw a difference of seventy-two years between the oldest and youngest participant, and seven year old Tom coped quite well on his single speed bike, keeping up with the others with no apparent effort.

Although the threat of rain caused a few anxious moments, we only had a couple of very light sprinkles, which moved past in a couple of minutes, and in fact made for quite pleasant riding conditions, with a light cool breeze helping the riders as they negotiated the eastern side of the river. On the return leg, from Canning Bridge, and where we were sheltered from the wind, a welcome call was made for a coffee break. And here we met Saskia Letham, who was unable to take part, but came to wish us well. I think she really came to check on her Sunbeam, which was being ridden by a friend.

Some of us stayed over at the park by the bridge for a prolonged matter, and a bite of lunch, after a pleasant easy ride.

Those taking part were – Merv and Dawn Thompson, Phil Harris, Ray and Merrill Martlew, David and Anne Northan, Scott Anderson, John Wilson, Saskia Letham, Peter Wells, and a number of visitors, to wit Edam, Maria, Tony and young Tom. Peter Wells

#### **CLUB SHIRTS AND CAPS**

We have a number of Club polo shirts available, sizes XL, L and S, at a very reasonable \$26.00 each. Also available is a sports cap in the same colours with club logo, with good size adjustment, which are just the shot when out riding and you take your helmet off. And they will only cost you \$10.00. See Peter Wells for your regalia needs -9459 1750.

#### LIBRARY NEWS

David Clark would like to remind members that books should only be on loan for ONE MONTH, so that other members can get to read them. If you have any bicycle oriented literature or old racing/touring photos that need a new home, Dave will be only too happy to relieve you of them. You will note that the book cabinet has recently been improved, thanks to a generous donation of a better base cabinet.

#### CANBERRA BICYCLE MUSEUMS NEWSLETTER

Once again the Editor of this very interesting publication shows good taste by including a couple of items from our own newsletter. But there is plenty to read of interest to W.A. cyclists, including ads for sale and wanted. Copies of this great read are available from our very own library, so do yourself a favour and see Dave at the next club night.

#### WHEEL BUILDING TROUBLES

Over a considerable number of years I have rebuilt my own wheels, both of pushbike and motorcycle varieties. Of course, the same principles apply no matter whether the power source be of human or mechanised means. But on a number of occasions while building pushbikes wheels I have encountered difficulty getting the correct lacing pattern, and I think that I have just found the cause of my confusion.

When in the course of the rebuild, I have used the same rim and hub assembly, I don't recall having any problem. But when I have taken rims and hubs from my selection of spares, I sometimes have problems, even though I have a similar complete wheel to compare, and have the correct length of spokes.

What I have failed to realise is that the holes in the rims are offset, but it all depends on where the hole for the valve has been drilled as to where the spokes fit. If you study the drawing you will see that there are two different patterns, and it is this that affects the lacing of the spokes so that they don't foul the valve, making it difficult to inflate the tubes.

The article on spoking wheels has been produced from a very early copy of Freewheeling, a basically touring oriented Australian cycling magazine no longer in existence. It should be useful to a number of our members.

#### WILLIAMS CRANK SETS

-

-

I-was lead to believe that Williams crank sets had a system whereby they could be dated from a series of stamped letters on the inside of the chain wheel. These letters are to be found with the Williams logo, and supposedly consist of a single letter from 1904 until 1930, when two letters were used. With 26 letters in the Alphabet, that covers the period up to 1930, but did they start with A and progress through to Z for 1930, as would be considered normal? Can anyone tell me just what sequence was used?

I have had a close inspection of all my chain wheels, but out of a dozen or so only two are marked, one with an M, the other W. I suspect that post WWII components were never stamped, probably to sava-da-money. Peter Wells

## <u>A BOX OF OLD MAGS – BUT A GOOD READ</u>

Alan Naber brought a box of old Australian Cycling magazines to the July meeting, and being a sucker for old books I made a donation to Club funds. Most of them were 1980's Freewheeling, and dealt with touring and touring bikes. But there were lots of articles on early days in the Australian bush, may of them by Jim Fitzpatrick, author of The Bicycle in the Bush. And there were also a number of well written maintenance articles, so I reckon they were well worth taking home. No doubt they will finish up doing the rounds of other members before too long.

Peter Wells.



#### CALENDAR OF EVENTS 2003

Sept 14<sup>th</sup> Sunday – 9am Midland Railway Museum – Club Display.

Sept 15th Monday - MONTHLY MEETING

Sept 21<sup>st</sup> Sunday – Club Ride. Meet at Hester Park, Langford, 10am. Bring your own (cold) lunch and drinks, for a ride in pleasant surroundings.

Oct 7-8-9<sup>th</sup> – Kalamunda History Display.

Oct 12<sup>th</sup> Sunday – Cannington Swap Meet. Car and bicycle parts. Buyers 7am Sellers 6am. Club stands.

Oct 20th Monday - MONTHLY MEETING

Oct 28<sup>th</sup> Tuesday – Have a Go Day – Burswood Club display.

Nov 16th Sunday – BTA Ride and BBQ Burswood

Nov 17th Monday - MONTHLY MEETING

NOTE NO GENERAL MEETING IN DECEMBER

Dec 6<sup>th</sup> Saturday – RAC Channel 7 Christmas Pageant. Be a The Esplanade 6pm.

#### FOR SALE-SWAP-WANTED

**For Sale** 

Aussie Gents, S.A. 3 speed gear. T-bar shift lever. Sound condition. Original paint in good order. Kris ladies sports, 26" wheels, full chain guard, good tyres, sound condition. Original paint. Malvern Star Ladies - 26" wheels, good tyres. Back pedal brakes. Sound condition. You can ride any of the above machines in the next Club run for a miserly \$25.00 deposit and no further repayments. Come on, they deserve a good home, and I need more room. Contact Peter Wells 9459 1750 For Sale 1951 Swansea Semi Racer, 3-speed derailleur, alloy guards etc. Rebuilt throughout. Nice lug work. \$250.00 Peter Wells 9459 1750 For Sale - \$5.00 each Malvern Star 1930/32 ladies - frame and forks. Malvern Star curved bar gents frame and forks. Swansea 1940 ladies curved bar frame and forks. Gents curved bar frame and forks, no brand.

#### WANTED WANTED WANTED

27" single tyres (second hand) for display purposes. Merv Thompson 9450 2579

20x1<sup>3</sup>/<sub>6</sub> Westwood rim 27" Box section (Endick) rims, 32 and 40 holes, suitable for painting Peter Wells 9459 175

# The Spoking of Wheels

#### by Chas Coin

Building (or lacing the spokes) of your own wheels is not a difficult task. Most people who have been shown the method written up in these instructions take about 25 minutes for their first wheel. The many people who have tried these written instructions take about 45 minutes to 1 hour. With practice, using this method you should be able to get down to 8-10 minutes per wheel (this does not include trueing which can extend the time by much, the quality of the trueing being proportional to the time spent).

First of all you will need some appreciation of the principles behind the peculiar lacing of a bicycle wheel. Get hold of a wheel and study it while you are reading this.

Note first that the spokes radiate tangentially from the hub, alternating to the right and to the left as you work your way around the hub. They also alternate under and over the hub flanges. Follow a spoke over the top of a flange and you will find that it goes under the last spoke it crosses before entering the rim.

Figure 1 Diagrams by the author.

Now look at the wheel from arm's length – look at the spokes with relation to the rim. You will notice that in every fourth space between the spokes along the rim, the spokes appear to be parallel, and in the three spaces on each side they appear to cross. The valve should appear in a space where the spokes are parallel – this enables a pump free access to the valve (figure 1). Also notice that on the rim, the nipple holes are offset about the midline in an alternate fashion, and this offset corresponds to the flange of the hub from which the spokes originate.

Lastly looking at the spokes at the hub, the spokes coming over the outside of the flange (the head being on the inside of the flange) should go anticlockwise, whatever side of the wheel.

#### Selection of Materials

It is presumed that you will have a hub and rim with the same number of holes. Spoke lengths vary with differing combinations of hub and rim so consult table 1 for the correct length(s) for your combination.

For tools you will need a spoke key which gives a good fit to your spoke nipples, a screw driver and a large strong rubber band.

#### Lacing the Spokes Into the Hub

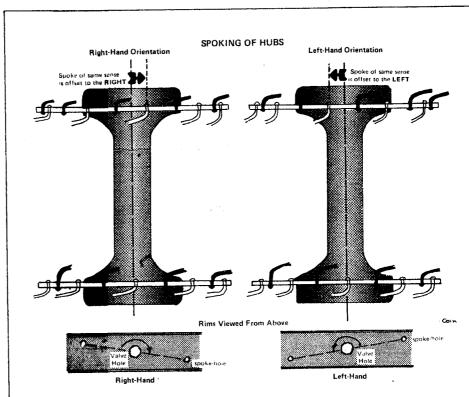
With this method we first insert all the spokes into the hub before attaching any spokes to the rim.

Begin with the flange on one side of the hub, and from the outside insert a spoke in every alternate hole (for a 36 hole combination it will mean that 9 spokes will have been inserted). Coming from the other side of the flange, insert another set of spokes in the remaining alternate holes. Next, inspect your rim. With the valve hole uppermost, and looking down on the top of the rim, you will note (as mentioned before) that the nipple holes are offset about the midline and therefore appear offset about the valve hole. Depending on where the valve hole was drilled, you will have one of the two configurations illustrated in figure 2. Note which of the configurations — right hand (RH) or left hand (LH) — you have.

Now take hold of the hub, and viewing from the side in which you have just inserted the spokes, you will note that if you project one of the spokes across directly to the other flange, it will fall between two spoke holes (this can be seen in figure 2). If you have a RH rim, then insert a spoke of the same sense as the one you have projected into the RH of the two holes. (Conversely, if you have a LH rim, insert the spoke in the LH of the two holes etc.) This spoke insertion sets the pattern for this flange so continue to put spokes in alternately as for the first flange.

You should now have your spokes in the hub according to the RH or LH options of figure  $2^*$ . Gather all the spokes from one flange and confine them with the rubber band — this saves some confusion later on.

Figure 2



Freewheeling Australia 37

#### Connecting the Spokes to the Rim

Which way do the spokes go? The rule is that any spoke that comes over the outside of the flange goes to the left (anticlockwise), and spokes that come from the inside of the flange will go to the right (clockwise). This is the same for either side of the hub.

If you have a **RH** rim then take an outside spoke (going left) and insert it in the spoke hole nearest to the valve, that corresponds to that side of the hub. (This will make the spoke parallel to the valve stem.) Attach a nipple and screw 1-2 turns only.

If you have a LH rim then take an inside spoke (going right) and put that into the spoke hole nearest to the valve corresponding to that side of the hub.

Both cases are shown in figure 3. Once that first spoke is in, continue around the rim with the next spoke on the hub equivalent to the one you have just inserted, and insert it in the fourth hole along. Work your way around the rim in this manner until this set of spokes is in place.

Next, with the other spokes on the same flange, pass each spoke past two going in the opposite direction and then weave it over the third before inserting the spoke into the rim — two holes away from the spoke that has last been passed. (The exception to this is a 4X arrangement in which case three spokes are passed before weaving past the fourth.) Continue this pattern with the remaining spokes on this flange and one side should be laced.

Now comes the second side, which is done exactly the same as the first. Take off the rubber band and select an outside spoke going left (for a RH rim) that should fit comfortably in the spoke hole nearest the valve. Test the equivalent spokes on each side of this spoke to confirm. As a check take the third *under* spoke to the left (this will be the crossed spoke in the final wheel – see figure 4) and this should fit comfortably in the third nipple hole to the right of the valve hole. The two spokes should also be symmetric. This may be a difficult step to conceive so consult figure 4.

If you have a LH rim then select an outside spoke going right that should

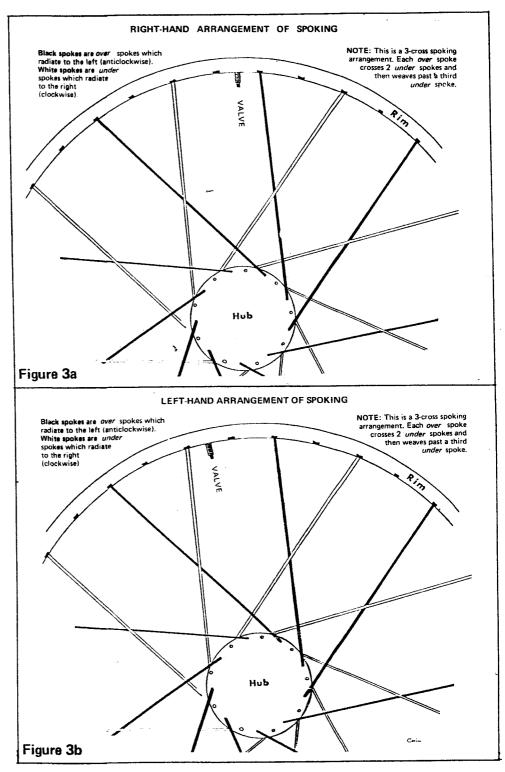
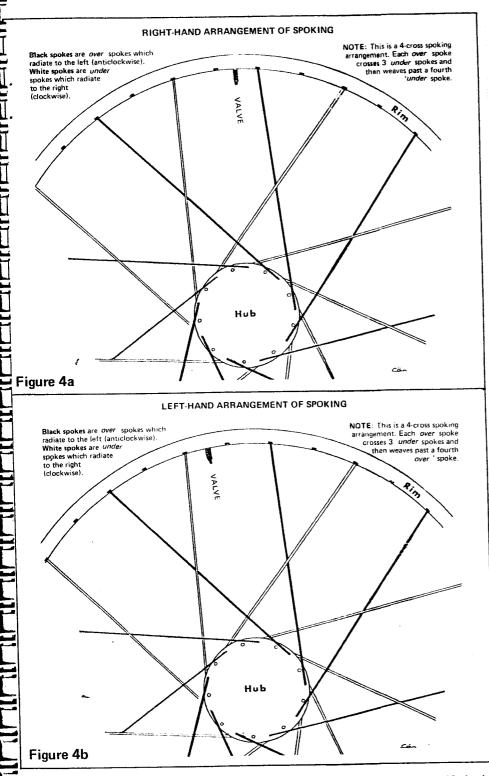


Table 1 – Recommended spoke lengths for 'single'-type rims (615 mm ID)

Drilling	28 3		32 3		36 3		36 4		40		36
X'd Spokes									3	4	3
Hub Type	F	R	F	R	F	R	F	R	R	R	Dyno
Low Flange	306	306/304	305	303/301	303	300/298	. 313	302/300	297/295	305/303	299
High Flange	305	303/301	300	298/296	295	294/292	305	307/305	292/290	300/298	289

F = Front; R = Rear; Dyno = Sturmey Archer Dynohub.

38 Freewheeling Australia



For 27" HP rims (620 mm ID) use spoke lengths 2 mm longer than shown. If nipple seats are depressed then use spokes only 1 mm longer.

The two figures given for rear wheels are for the LH and RH (gear side) of a dished wheel.

Spokes do not come in 1 mm increments. Generally the available increment is mm (eg 295 mm, 300 mm, 305 mm etc). Therefore select the closest increment. Some spokes are still made in British lengths, so a conversion table is given.

Inches	11-3/8	11-1/2	11-5/8	11-3/4	11-7/8	12	12-1/8	12-1/4
mm	289	292	295	298	302	305	308	311

fit comfortably in the spoke hole immediately next to the left of the valve. As a check take the third over spoke to the right (this will be the crossed spoke in the final wheel - see figure 4) and this should fit comfortably in the third nipple hole to the left of the valve hole. The two spokes should also be symmetric. Consult figure 4 for con-(For a 4X spoking, the firmation. instructions are the same except that the check spokes are the fourth under (RH rim) and fourth over (LH rim).

Once the first spoke is in, the procedure is exactly the same as for the first side.

The instructions have now finished and the wheel should be completely laced with the spokes loose. There are a few things to check before going further. 1 Will the valve be parallel to the im-

mediately adjacent spokes?

2 Does every spoke weave across one other, outside spokes going under?

3 Do all outside spokes go anticlockwise on both sides of the wheel?

At this stage tighten all the spokes up to a uniform level with a screwdriver generally until the spoke appears in the screw slot in the top of the nipple.

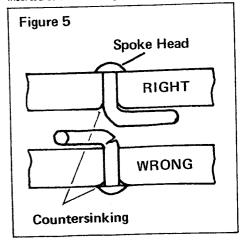
If at this point you find that every fourth spoke or such is too short or too long then you have gone wrong. You will find in such cases that the first side of the wheel is OK but the second will need to be undone. The error is that you have a RH spoking on the hub for a LH rim or vice versa. Check with figure 2.

If all is correct then the wheel is ready for trueing.

\* Footnote

It is assumed that the hub being used is suitable for both LH and RH rims, ie each spoke hole is countersunk on both sides of the flange. If your hub has holes that are countersunk only on each alternate side of the flange then you will need to determine whether your hub is LH or RH according to figure 2 and purchase a rim to match. Alternatively build one side of the wheel (gear side for rear wheels) according to directions and the other side change from RH to LH or vice versa.

For a hub with countersinking on only one side of each spoke hole, the spokes should be inserted as shown in figure 5.



40 Freewheeling Australia

#### Western Australian Historic Cycle Club

#### Financial Statement to 15th September, 2003

Opening Balance		\$ 2,196.35
Receipts Sale of scrap Meeting Supper Money. Subs	\$ 9.00 \$ 23.00 \$ 10.00	\$ 42.00
Less Expenditure Printing of newsletter \$20	0.00	
		\$ 20.00
Nett profit for period		\$ 22.00

**Closing Balance.** 

\$ 2,218.35

Minutes of the Committee Meeting Held at 41 Clarke Street 10<sup>th</sup> November, 2003-12-22

Present

Peter Wells David Clark Phil Harris Ray Martlew Merrill Martlew

Apology Merv Thompson

Minutes of the previous Committee Meeting were received by Phil Harris & Ray Martlew.

**Business Arising** 

Consider a toy run for next Christmas

Phil Harris suggested putting together a folio of photos to present to Maddington Forum with a view to having a display at the centre.

Peter Wells is to follow up Geoff Moor in relation to note books for sale.

All caps have been sold.

**Treasurers Report** 

Credit balance \$2188.84 received & adopted by Phil Harris & Merrill Martlew

Correspondence Bike Week Machinery Preservation Club

Ray Martlew suggested we inquire about setting up a museum & workshop.

Letter sent to BTA Merv sent a letter to Bridgetown re show.

#### Events

Melville Rotary Fair Guildford Fair Rocking Peddle & Paddle February 22.

Dave to provide raffle for next club meeting.

Swap meet Sunday May 23<sup>rd</sup>.

Tin can Rally Herdsman Lake 18th April

**General Business** 

The condition of the steps at the rear of the hall was discussed.

Letter from Anne Marie Driver with website.

Meeting closed at 8.40 p.m.