

# Velocipede

**The 11th National Velocipede Rally**  
**Sunday 10th July 2011**  
**Froghall Station**  
**Churnet Valley Railway**  
**Staffs ST10 2HA**

First my grovelling apologies for silence since the December Newsletter – that was the month the mother board in our computer cracked & I was sunk until a refurbished mother board was found.

## NEW email address

[jackiethomas002@hotmail.co.uk](mailto:jackiethomas002@hotmail.co.uk)

I hope to send out as many Newsletters as possible by email (in pdf format).

If you could email me your email address you will go on the Newsletter list, your email address will only be used for Newsletter and National Rally arrangements.

If you don't have email I will post you a Newsletter and entry forms as usual.

## Larger Type

Feedback reports the typeface on the last newsletter was a bit small—I agree and it's now up from 8pt to 10pt.

### BOOK STARTED

I have done the basic IT course, got an email address, bought a digital camera, and started work. It will be a printed "History" in the book and a "how to" (like this newsletter's article on the Buda restoration) on the disk (plus .dwg drawings that can be used to get a laser cutting company to make parts for you, *three sets for the disc wheel track bike sent out so far*). There will also be lots of background photos, documents and moving pictures on the disk.

I am hoping to get a first edition in two years. Thank you for all your help, information and photos, they are very much appreciated please do keep sending them, you will be credited under the photos. Jacqui.

## This Year's Rally

This is a day out for friends to meet other like minded friends and play with machines. You come at your own risk and look at the track and arrangements and if you don't like either you don't have to play.

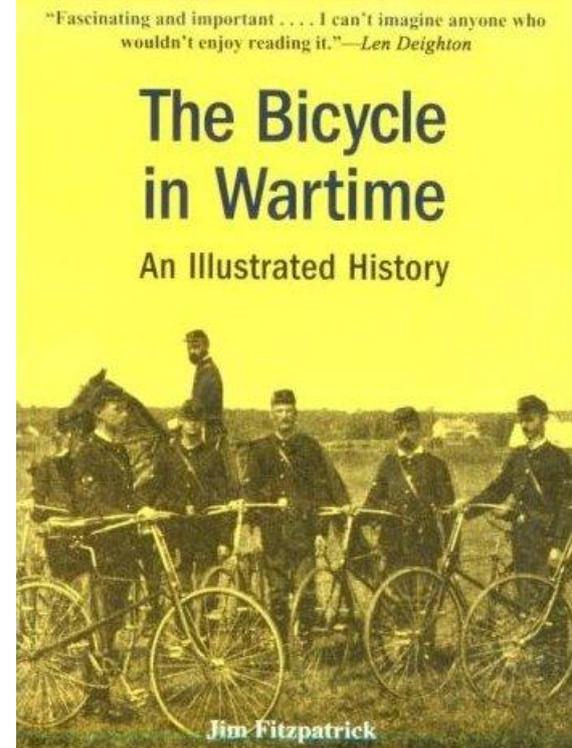
The Rally is hosted by the Churnet Valley Railway at Kingsley & Froghall Station **ST10 2HA** on Sunday 10<sup>th</sup> July 2011.

You can trundle down to Oakamoor and back on your own or do photo run throughs at Froghall between service trains with me and gossip and try other machines in the intervals.

Please let us know if you are coming, by email or post back a form.

## Help Needed

A copy of this book to borrow or buy



## Another "Golden Spanner"

There is another "Golden Spanner" Award in the railway world, it's given for improved time keeping. South West Trains won it in 2010.

## Book Review NEW available now

A reprint of **1907 BUDA Track Supplies and Railway Material Catalogue** from amazon.co.uk at £18.53 (2010 price) 330 pages, paperback, 8"x10".

The 41 pages relevant to hand powered vehicle collectors are from 46 to 87, covering pressed steel wheels and the wood centre wheel, p50, which I have never seen elsewhere. **Pump Cars** 51 to 61 with parts photos and lists 68 to 73 – from this data you can rebuild or new build a pump car. The **Push Car** material 62 -67 and 74, 75 is relevant because axles and wheels for these still turn up (one in 2010) and can be used to repair Pump Cars and Velocipedes if you swop the centres.

**Velocipedes** pages 76 to 87 is pure gold if you have a machine, care for one or want to build one – this is the bible. With a photocopier and a couple of known dimensions

(bring a measuring tape to the National Rally) you can scale the parts photos and build one.

**A cracking book at a reasonable price, grab one, now!**  
Jacqui Thomas

restoration, some of you will remember this machine, not an easy project. The two main wheels under the body were rusted away to the centre boss and replacing them was always the big problem.

## Book Review difficult to find

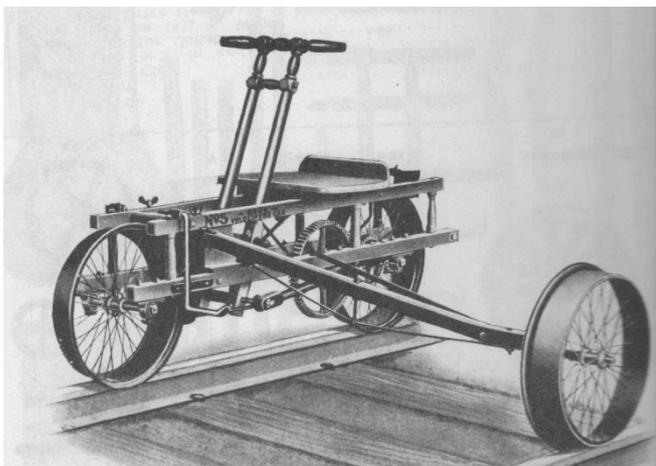
A partial reprint of the 1909 BUDA Catalogue **Train Shed Cyclopedia No 28** from Newton K. Gregg, Publisher \$5.50 in 1975. ISBN 0-912318-59-7 Library of Congress Number 72-83863 photo reduced to 2 pages per 8 1/4"x11 1/2", paperback. It has 24 sides (2 pages each) relevant to hand powered collectors.

You are in the second hand market for this one, good luck, it has the first appearance of motor cars and much the same Pump Car, Push Car and Velocipede material that appears in the 1907 reprint (without the wood centre wheel). The parts photos are completely different to 1907, but just as easy to scale with a photocopier and a few known dimensions and just as much **pure gold**. The **Velocipedes** include the new No 5 "Emergency Car" which is light weight and has bicycle spoke wheels (I am guessing and I could be wrong, that the wheels are all the same size and about 17"). **Well worth buying, if you can find one.**  
Jacqui Thomas.



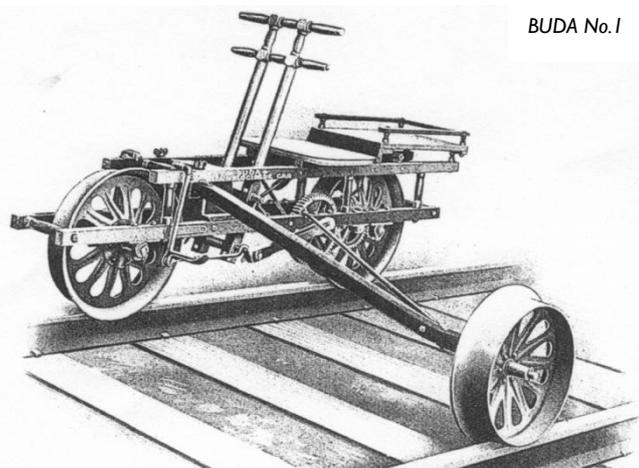
We were going to try a laser cut fabrication for the 17" wheels and started work on an AutoCAD file, we also built a set of rolls to roll the guillotined rims but incredible good fortune played a hand, Steve Downs, winner of the 2009 trophy, recovered one axle from a BUDA hand car and passed the wheels onto us, what a star.

The wheels look to have been stamped on the same tool as the Velocipede wheels but are 10mm larger at the rim and don't have the curl up at the edge opposite the flange. They are 20mm larger at the flange which is probably due to the extra original metal thickness, Velocipede wheels started about 3mm thick and handcar wheels up to 9mm thick. They had a very big centre boss, 75mm, held by larger rivets than a Velocipede and in a different position on the "hills" not in the "valleys".



BUDA No 5 Velocipede "Emergency Car"

## Report on BUDA restoration



BUDA No. 1



The wheels were cut off with a cutting disc in a 9" angle grinder from the 50mm thick axle, the rivet heads ground off, drilled through and heated with an oxy-propane torch, to break the rust hold. The remains punched out and the boss prised apart, the holes were cleaned with a wire brush and file, then welded up. The welds were then ground back to the original metal thickness.

Steve Lester very kindly sold us the "Gwilli" Velocipede for



One wheel centre needed patches brazed on near the rim, I am bad at welding thin metal, it disappears, and I find brazing with the oxy-propane much safer.

Relocating the wheel centres recovered from the original wheels that had rusted away is difficult. BUDA drilled and bored the axle holes after the boss was riveted in and the complete wheel held by the flange in a big lathe to guarantee true running. This is what Graham Hughes, of the Churnet Valley Railway did to get true wheel centres on his new machine.



Photos shows two bores off centre, hence the belief the boring was done after the boss was riveted in. Reversing the process involves making a taper blank, to match the bore, and giving this taper blank a centre hole at the small end.



With the taper blank very firmly in the boss you can use a trammel from the centre hole to the rim to re-centre the boss, tack weld it in place, test true running on the actual axle and then re-drill the rivet holes.



I made 12 rivets to match the holes and re-riveted the two bosses in place. I left the tack welds.

We will add a strip around the rim opposite the flange to give the true velocipede "double flange".

We are saving the remains for "patching" future rotted wheels. More delights in a later newsletter.