And other Hand Powered Rail Vehicles
Railway Trike (AUS)  Railway Kalamazoo (AUS)  Pump Car (US,GB)  Velorail (FR,GB)
Hajtany (HU)  Railbike (US,GB)  Dresinsykling (NO)  Handcar (US)  Drezina (SI)
Handhebeldraisine (DE)  Drezina (HU)  Resilina (FI)  Dreznyn (PL)  Skinne cykel (DK)  Dralsines (BE)
Bicilinha (BR)  Dresin (NO)  Biciclette Ferroviarie (IT)  Spoorvegfiets (BE)  Dressin (SE,NO)
Dresina (SP)  Schilenenvelo (CH)  Dreziny (CZ)  Railway Jigger (NZ)
Cyclo Draisine (FR)  Spoorfiets (NL)  Cykeldressin (SE)

DRAFT No 55 For this free email newsletter, contact: jackieinthomas002@hotmail.co.uk Or download from: www.velocipedes.co.uk

2 foot gauge: Statfold Barn Railway, 12 September www.statfoldbarnrailway.co.uk
North Yorkshire Moors Railway Velocipede Event provisional date Thurs 5th & Fri 6th Nov.

Slovenian Railway Museum
Photographed by By Tim Edmonds

Has a very good line up of 4 hand power machines.

A Row Boat, the Austro Hungarian Empire’s favourite hand power. See the General Arrangement on the next two pages.
Prof Mladen Bogić the Museum Director has written

We don’t know much about the history of the draisines in our collection – I’ll try to provide as much information as possible.

The inspection trolley with the pairs of wheels of different sizes is something special indeed. The literature shows that it was called a 'Planck' and designed as early as the 1860s. The two different wheel sizes are not without purpose. If the trolley was used on uphill gradients the connecting rods would operate on the smaller wheels (i.e. 1st gear). If it was used on level lines, the connecting rods would be re-mounted to work on the bigger wheels in order to reach higher speeds (i.e. 2nd gear).

Row Boats were beloved of the Austro Hungarian Empires Railways. All the survivors seem to be split drive, two 90 degree cranks, usually right hand leading. (no dead spots – the machine cannot be caught “top dead centre”). Split drive is arms only, the single drive UK machines have feet assisting too.
These are photos I took of it in 1983 in Novo Mesto, its home town. After becoming a museum exhibit it was completely rebuilt, of course.
Arthur Koppel built Velocipede converted to a chain driven Draisine.
**The red three-wheeler** is of a type once widely in use in Hungary. These were supplied by Arthur Koppel from offices in Budapest. Looking closely to the vehicle in our collection you will notice two pairs of handles on different levels of the drive lever. This is an ingenious system of gearing the vehicle up: when you start when you start operating, or when going uphill, you use the top pair of handles. This gives a longer lever with a longer travel - effectively 1st gear. Once up to speed, or on returning to level track, you change to using the lower pair of handles. This gives a shorter lever and shorter travel - 2nd gear! It is a simple and ingenious device thought up by our predecessors. This trolley was saved for our collection in Croatia during Yugoslavian times. (During the Austro-Hungarian Empire Croatia was in the Hungarian part, whereas today’s Slovenia belonged to the Austrian part.) This trolley was made immortal by playing the role in an Italian burlesque film dealing with a story of an Italian emigrant to Australia, feeling lonesome and yearning to marry a compatriot girl. The actor **Alberto Sordi** plays a permanent-way keeper using this vehicle at the very beginning of the film. **A Girl in Australia** 1971

The Koppel leaflet for velocipedes which we unfortunately cannot use contained “**Europeanized clothing**” drawings of two early Sheffield Advertisements from the 1880’s with “wheelbarrow” **square spokes**, this is so close to the patent date perhaps Arthur Koppel purchased a license to manufacture them.

![A publicity still from the Film](image_url)

![Today’s Map](image_url)

(Alberto Sordi also appeared in Those Magnificent Men in Their Flying Machines in 1965 as Count Emilio Pontichelli being sold unflyable flying machines by Tony Hancock).
This has been converted to a Draisine, it is chain driven not gear driven.  

**Not built by Sheffield, the differences are** Too many spokes in the outrigger wheel, hand brake with thumb release, outrigger stay is double bracketed far back, “x” frame brace too far forward.

---

**Have a look at the beautiful Sheffield 1894 Catalogue** [http://pds.lib.harvard.edu/pds/view/46387752](http://pds.lib.harvard.edu/pds/view/46387752)

---

On our website [www.velocipedes.co.uk](http://www.velocipedes.co.uk) in **FREE “Downloads”** There are plenty of Sheffield/Fairbanks Morse Catalogues

- 1900 Fairbanks Morse Hand Car Leaflet
- 1902 Buda Catalogue - Handcar & Pushcar Pages (333.7MB)
- 1905 Buda Catalogue - Handcar, Pushcar & Velo Pages (233.1MB)
- 1905 Fairbanks Morse Railway Supplies No 106
- 1909 BUDA Pump Car Catalogue [page view here](http://www.velocipedes.co.uk)
- 1910 plus BUDA Cat 213
- 1911 Fairbanks Morse & Co Sheffield Catalogue
- 1911 Sheffield Velocipede Catalogue 106E ([New May 2015](http://www.velocipedes.co.uk))
- 1916 H Channon Company Catalogue (794KB) ([New May 2015](http://www.velocipedes.co.uk))
- 1917 Fairbanks Morse & Co Sheffield Catalogue
- 1920 Canadian Fairbanks Morse Catalogue Pages (1.87MB)
- 1922 Fairbanks Morse & CO Catalogue (12.4MB)
- 1949 Fairbanks Morse & CO Catalogue (1.05MB)
The four-wheel bicycle
(I'm wrong – it really is a ‘tetracycle’ 😊) was for some time after WW2 a standard vehicle for the ‘Track Masters’ as we call them i.e. for the men responsible for keeping certain kilometres of track in order. They would inspect the line using one of these vehicles and monitor their maintenance gangs to ensure that they were working properly.

Support Group
There is a UK support group for the museum in Ljubljana - The Friends of the Slovenian Railway Museum - which publishes a quarterly journal ‘The Cornet’. More information is available from John Gulliver at johngulliver1@btinternet.com.
European Trackbike Makers – Choices: Wohanka, Ferrovia, Orenstein and Koppel & Gesellschaft fur Bahnbedarf Hamburg.

Wohanka and Ferrovia were headquartered in Prague in 1912 (This was then in the Austro Hungarian Empire until that collapsed in 1918 and Czechoslovakia was formed, this lasted until 1990 and split to become the Czech Republic).
Draisiny.

Velocipedová draisina
s jedním sedadlem pro traťmistry
k staničním účelům.

Obr. 562.

Též zhotovujeme draisiny pro dopravu 4—6 osob dle zvláštních údajů.

Velocipedová draisina
se 2 sedadly.

Obr. 563.
Gesellschaft fur Bahnbedarf Hamburg, Germany.

**RAILWAY INSPECTION MOTOR CARS**

*CYCLE TROLLEYS and LEVER HAND CARS OF EVERY DESCRIPTION.*

All Types and Sizes, to seat from one to twelve persons. Built to any Gauge. All Cars are Speedy. Parts easily Interchangeable. Can be readily dismantled. No Complicated Parts. They are Simple, Cheap and Efficiency Guaranteed.

Over 1,000 in use on leading railways.

Written for particulars and prices—

**H. A. HARVEY & CO., Norfolk House, Laurence Pountney Hill, Engineers and Contractors, Sole Agents for Great Britain and Ireland.**

London, E.C.
Orenstein and Koppel of Germany gets my vote, the little quadrants for the brake handles and the drum brakes.

FOR
Brake handle
flipped
Drum brake

AGAINST
Museum machine has compression springs.
The O&K is different but could these curved links be sprung. (Torque bar in tube, fixed in centre)?
The pump-trolley, well known from the Disney’s cartoons dealing with the adventures of Donald Duck, is most attractive, of course, but nothing special in its own right, except for being very rare nowadays.

**Pump Car** Rebuild.

**Pump Car** Walking beam is a casting, by Fairbanks Morse/Sheffield (1922 type 139) or possibly by Buda. I would say it is a rebuild reusing old parts, it has a more modern steel frame & gallows, with cast wheels not old pressed steel ones.
The walking beam looks like a Buda casting (cruciform cross section) but the connection to the small end of the connecting rod is different to the Buda one below; this could be a repair.

or it could be a Bucyrus walking beam or a

Fairbanks Morse/Sheffield walking beam of this type made in 1922 with the connection to the small end of the connecting rod below.

| From 1909 Buda Pump Car Catalogue page 78, Free Download on website. | Buda machine |
| From 1883 Bucyrus Catalogue pages, Free Download on website. | |
| From 1922 Fairbanks Morse Catalogue page 37 | Museum machine |

---

**On our website [www.velocipedes.co.uk](http://www.velocipedes.co.uk) in FREE “Downloads” There are plenty of Fairbanks Morse/ Sheffield & Buda Catalogues**

- 1900 Fairbanks Morse Hand Car Leaflet
- 1902 Buda Catalogue - Handcar & Pushcar Pages (333.7MB)
- 1905 Buda Catalogue - Handcar, Pushcar & Velo Pages (233.1MB)
- 1905 Fairbanks Morse Railway Supplies No 106
- 1909 BUDA Pump Car Catalogue [page view here](http://example.com)
- 1910 plus BUDA Cat 213
- 1911 Fairbanks Morse & Co Sheffield Catalogue
- 1911 Sheffield Velocipede Catalogue 106E (*New May 2015*)
- 1916 H Channon Company Catalogue (794KB) (*New May 2015*)
- 1917 Fairbanks Morse & Co Sheffield Catalogue
- 1920 Canadian Fairbanks Morse Catalogue Pages (1.87MB)
- 1922 Fairbanks Morse & CO Catalogue (12.4MB)
- 1949 Fairbanks Morse & CO Catalogue (1.05MB)

*Have a look for yourself and decide.*
The tourist show caves at Postojna in the Karst region of Slovenia are 1500m from the entrance and initially could only be reached by a long underground walk. On 16 June 1872 a single track 620mm gauge railway was laid from near the entrance through the galleries to the main public caves.
Rolling stock consisted of carriages with two bench-seats, in which visitors were pushed by the cave guides.

None of the original vehicles has survived, but the Notranjski Museum at Postojna owns a replica. This was stored out of public view at the cave on 21 August 2000 when these two photos were taken, with access by special arrangement.

The line was upgraded after WW1 to enable operation by petrol locos from 1924. Further improvements took place in 1957, when battery-electric locos took over, and the line can now carry thousands of passengers a day in a slick operation.
Petrol machines in the Slovenian Railway Museum.

Prof Mladen Bogić, the Museum Director continues

The mopeds replaced the 'tetracycles' in the 1960s and they, too, were of standard types. The one in our collection has even been modernised – the early engine with two gears has been replaced with a new-one equipped with three gears. Both engines as well as the basic moped frames were produced here in Slovenia by the Tomos factory in the city of Koper. The factory started its production by purchasing the Austrian licence for building Puch-mopeds. Puch again, was a Slovene, Janez Puh, who had gone to Graz, Austria, to make his living by constructing bicycles and mopeds.

The next in the line is a home-made motor-car, equipped with an ILO engine of German origin. This vehicle served for inspection on the Maribor - Dravograd - Austrian border line in the north of Slovenia. It was included into the Museum collection in 1984. Afterwards it was completely overhauled into working order. Alas, it is not allowed to run on the public lines in Slovenia any more.

A really good representative collection in lovely condition, well worth visiting. Our thanks to Professor Mladen Bogić, and Tim Edmonds for all their work.

Railway manufacturers in the Austrian Empire:

Vienna Locomotive Factory of the State Railway Company, founded in 1839, in Wiener Neustadt.

New Vienna Locomotive Factory, founded in 1841, Floridsdorf Floridsdorf Locomotive Factory, founded in 1869.

Railway manufacturers in the Kingdom of Hungary:

Budapest The Hungarian Locomotive Company MÁVAG & The Ganz Company.

Győr The RÁBA Company.