



**The 4mm wagon and van kit**

## The Prototype

The Cambrian Railway started building the 'low sided goods wagon with drop sides' at Oswestry in the 1890's but also used outside builders including Ashbury's and Pickering's. The drop side was by far the most numerous wagon in the fleet. By grouping the Cambrian had several hundred out of a total fleet of 2200 wagons.

Over the years various changes to the tongue and groove sheeting occurred. This model represents an example with the more 'decorative' grooved sheeting produced at Oswestry and fitted with grease axleboxes. All wagons were probably built with single side brake gear but it is possible that some were modified to the either side pattern during routine maintenance or repair. In GWR days axleboxes were sometimes changed to the standard GWR oil box.

The drop side wagon was used for all manner of traffic, in particular the transport of roofing slate from Wales to destinations nationwide. These wagons were often seen in goods yards throughout the country.

Wagons of this type are known to have been in service with the Great Western in the twenties. During this period the Great Western was enforcing a drive to scrap timber underframe stock and it is likely few, if any, existed after 1931.

## References

"The Cambrian Railway Album, Vol 1" –p69

"The Cambrian Railway Album, Vol 2" –p31

"British Goods Wagons from 1887 to the present day"

Essery, Rowland & Steel

## Interested in the Cambrian Railways?

Contact the Welsh Railways Research Circle

20 Cory Park,

Abbeyfields

Llantarnam

Torfaen. NP44 3HE

[peter-sims@beeb.net](mailto:peter-sims@beeb.net)

## Cambrian Railway Great Western Railway

### Low sided goods wagon with drop sides

Period: from 1890s to 1931



For OO, EM, P4 and S4

**Features:** white metal body, axleboxes, buffers with steel heads, etched W-irons and brake levers.

**Required to complete:**

split spoke wagon 12mm wheels, paint, three link couplings, and transfers.

## Assembly

Please read these instructions before starting to build your model. Examine all the parts and familiarise yourself with their assembly. Remove any moulding flash and ensure all parts fit correctly. We suggest wet fine emery paper (1200 grit) to clean up flash marks.

Assembly is best carried out using low melt solder or an epoxy resin such as Araldite. Glues like UHU, Multibond or Thixofix can also be used. For small parts use superglue. To obtain the best results a combination of several techniques will be needed.

The 51L W-irons should be assembled following the enclosed instructions. The straight bridle bar should be used, although some wagons are known to have had the curved pattern. OO and EM modellers may wish to choose a rigid chassis, in which case both W-irons need to be assembled in the non-rocking mode. It may be

advantageous to paint the W-irons at this stage. Fit wheel sets using 12mm diameter split spoke wheels. Fit one end of the wagon to a side and, ensuring all is level and square, fix. Repeat for the second end and side. When firm fix both sets to each other. If required, gently tweak the wagon to bring the wagon top into contact with a flat surface such as a glass sheet. Cut the floor to size and fit ensuring it is in contact with the ledge next to the curb rail and headstock. A second 0.010" plastic sheet is supplied to form a sub-floor as a packing piece to fit between the headstock ledges if required. Do not fix the floor and sub-floor at this stage.

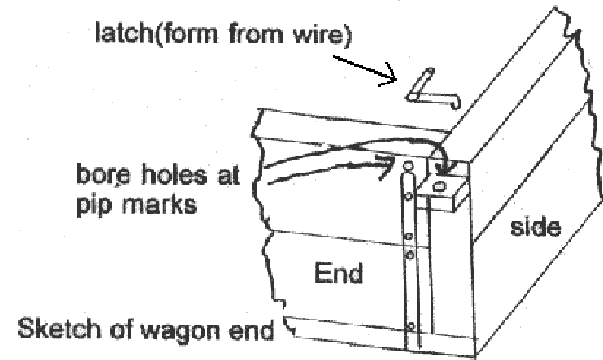
Check the clearance between the solebars is sufficient for the w-irons. Using Mek-Pak or similar solvent, fix the sub-floor in place between the headstock ledges but on top of the solebar ledges. Fix the floor in place on top of the sub-floor. The buffers can now be attached in place. Place both W-irons on the floor using the crown plate coach bolts for positioning.

Check the rail to buffer centre height adding packing to the W-irons as required, to achieve a 14mm height. Glue the W-irons in place. (It may be helpful to draw axle centre lines for guidance.) If the wagon is gently pushed along a flat surface it should run in a straight line. If not one or both of the W-irons are out of line and should be adjusted.

Bore out brake shaft holes in the brake shoe assemblies and the V's with a 0.5 mm drill. Take care to avoid damaging these delicate parts. Fit brake gear to the interior of the solebar ensuring the brake shoes are in line with the wheels. Attach the etched V to the interior of the solebar in the slot provided using the brake shoe assembly for alignment. 0.5mm wire is supplied to form the short brake shoe cross shafts if required. Attach the exterior V using the brake shoe and V for alignment. Finally, attach the brake lever and guide following the enclosed instructions. The lever guide should be to the left of the right hand spring carrier. Repeat for the other second side if required. (Note: photographs of these wagons show single side two shoe brake gear and it is unlikely that any had either side brake gear till after Grouping if at all). Form brake safety loops from the supplied fret.

Using the 0.31mm wire supplied prepare horse hooks and fit. Pip marks may be found on the solebar adjacent

to the left-hand end. Lastly prepare door latches from the same wire. Bore out the holes, pip marked, at the top of the end door strapping, to a depth of around 0.5mm using a 0.4mm diameter drill. Form a latch from the 0.31mm wire by gently flattening leaving one end round to push into the bored hole above the end strapping. The 'hook end' fits into the hole at the side door latch catch - see sketch below.



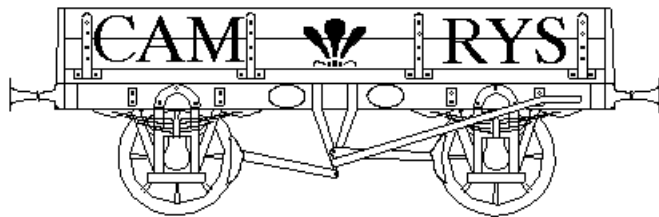
## Finishing

Clean and degrease the model, using water and meths prior to painting. For whitmetal parts use an etching primer, such as Precision Paints PS1. Paint the model using the livery of your choice. After painting clean the model using a tissue soaked in white spirit. This is especially important if you are using "Dragon" or similar dry lettering rather than waterslide or 'Methfix' transfers.

## Livery

The following information is intended for guidance when positioning transfers - please consult the references for detailed information.

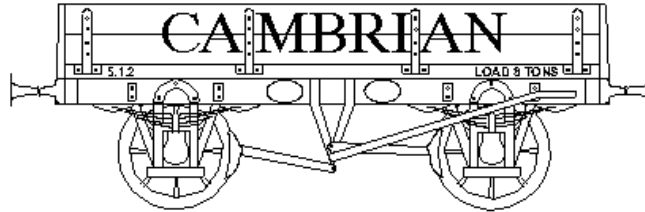
### Cambrian Railway 1899-1915



Bodywork, solebars and headstocks: light grey such as Precision Paint P361  
Ironwork: black

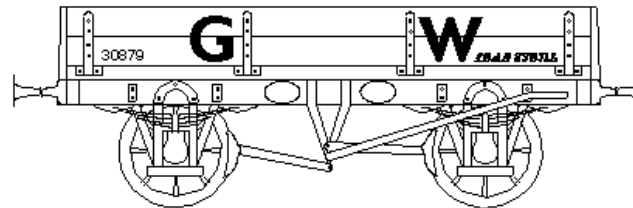
Letters and numbers: 12" letters with serifs in white  
Decals available from Dragon Models sheet 4001  
Note from 1902 on some wagons had 5" numbers on the curb rail below the Prince of Wales feathers.

### Cambrian Railway (1915- 1923)



Bodywork, solebars and headstocks: light grey  
Ironwork: light grey  
Letters and numbers: 12" letters with serifs in white  
Decals available from Dragon Models sheet 4002  
Note occasionally 'RAILWAYS' was added to the lower right hand quadrant in 4" white letters without serifs.

### Great Western Railway (1923-demise)



Bodywork, solebars and headstocks: dark grey Precision Paint P11  
Ironwork: dark grey  
Letters and numbers: white  
Decals available from:-  
HMRS sheet 11 or Modelmaster 4704

### Sample Numbers:

Information on Cambrian wagons is limited and comes from the few photographs that exist and the Great Western Railway wagon registers. Numbers are known to have included:- 291, 431, 446, 478, 485, 913, 927, 938, 939, and 2399 and in 1923 the GWR number 31879.

In the GWR period Cambrian wagons were incorporated into the GWR register using any available numbers.

## Acknowledgements

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Michael Morten Lloyd  
Bob Millar

## 51L

51L has a wide range of locomotive, carriage and wagon kits for the following railway companies

GWR and constituents:-  
Cambrian Railway  
LMS and Constituents:-  
Glasgow & South Western Railway, Highland Railway, Lancashire & Yorkshire Railway, Midland Railway, North Staffordshire Railway, Caledonian Railway  
LNER and constituents:-  
North British Railway, North Eastern Railway

51L models are available through Wizard Models/51L

The most recent version of these assembly instructions will be available on the 51L web site: [www.51l.co.uk](http://www.51l.co.uk).  
For further help or information please email: [andrew@modelsignals.com](mailto:andrew@modelsignals.com)

## Wizard Models

Wizard models stocks a wide range of components and other necessities for the modeller in OO, EM and 18.83mm.

Wizard Models  
PO Box 70  
Barton upon Humber  
DN18 5XY  
Tel / Fax: 01652 635885

Email: [andrew@modelsignals.com](mailto:andrew@modelsignals.com)  
[www.wizardmodels.co.uk](http://www.wizardmodels.co.uk)

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