

Bicycle trailers

BICYCLES are found all over the world and are a very useful way of transporting people and loads. The use of a motor vehicle may often be impossible for a variety of reasons – usually because of the high cost, and sometimes because there are few accessible roads. Without transport it is very difficult to carry quantities of goods to market. Adapting bicycles to carry loads more effectively can bring great benefits.



Baskets or paniers can be added to a bicycle. Even more useful are small trailers. These may be expensive to buy ready-made, but here are some good ideas to help build your own at very little cost. These designs have all been tested and proved useful. Once the main frame is built, you can adapt their design for your own purposes, depending on your priorities – a tanker to carry water, an open trailer to carry goods, a flat bed trailer to use as an ambulance to carry sick people – there are all sorts of possibilities. You may want more than one kind of

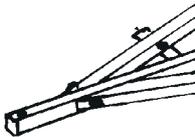
trailer. If bicycles are very expensive, a group of farmers could join together and buy a bicycle and trailer which could be available for each of them in turn. In urban areas, trailers could be used for a variety of means of earning income – such as selling vegetables, paraffin or charcoal, distributing drinking water or rubbish collection. In towns and cities, however, heavy motor traffic may be a hazard.

If you become skilled in producing these trailers, they could also prove a useful source of income if you are able to sell them.

Recommended reading...

The Design of Cycle Trailers, by M Ayre. Cost £8.50 from Intermediate Technology Development Group.

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Rugby
CV21 4HT
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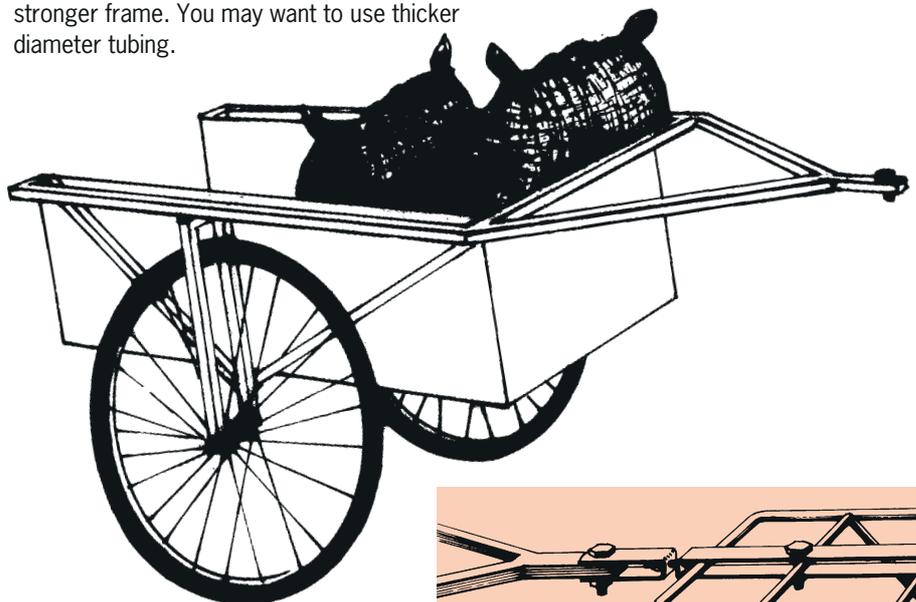


Box trailer

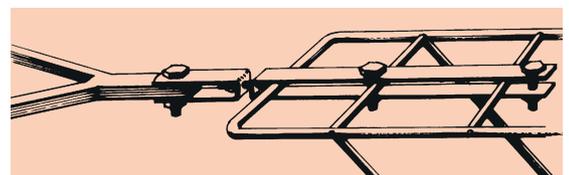
This design was developed by Ben Maxted in Sri Lanka and the joint is bolted onto the back luggage rack, allowing the trailer to roll on rough surfaces without damage.

The basic trailer was adapted by Mallavi Hospital and converted into a covered ambulance. This could carry one person – sitting or lying down, with a tray at the front for carrying health materials. The roof provided shade for the patient.

This design was made from welded tube steel which is not too expensive in Sri Lanka. A bending machine is useful as it reduces the amount of welding needed and gives a stronger frame. You may want to use thicker diameter tubing.

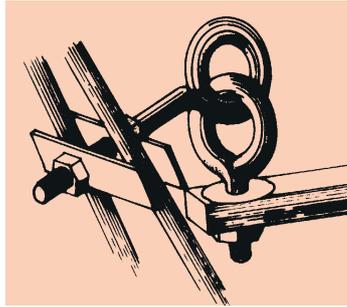


Towing link detail

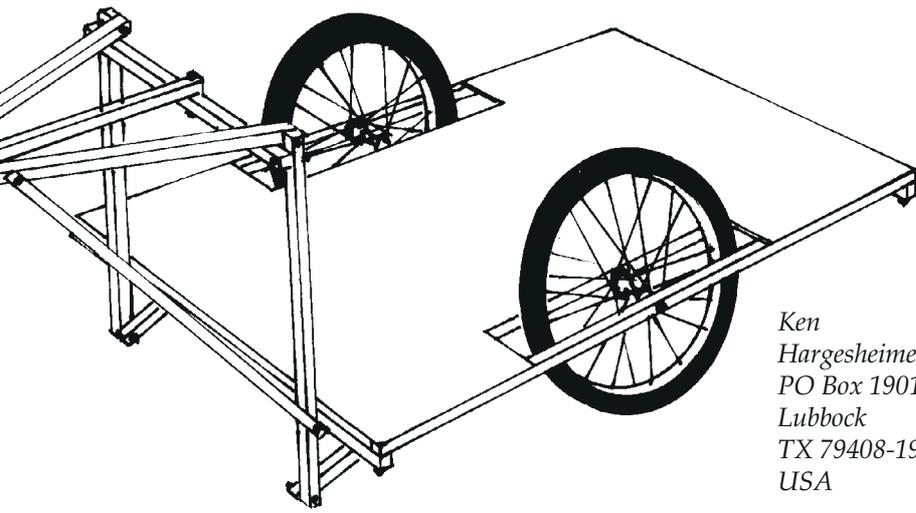


Flat bed trailer

This design was developed by Ken Hargesheimer and bolts onto the bike frame just above the back wheel. Although this design could also be made from welded metal, not many people have metal welding equipment. This frame has therefore been made either from angle iron or wood – drilling holes in the end of each piece and bolting the frame together. It may also be possible to make a frame out of bamboo – tightly tied together at the joints.



Towing link detail



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Watch where you're going!

Certain driving skills are needed to drive a trailer, which is, of course, much wider than a bicycle. Allow plenty of room for driving round corners and beware of holes in the road. Don't overload these trailers – both designs should carry up to 100 kg, or a little more if they are made out of metal. Used with care, they should provide many years of useful service.

