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A Homemade Trailer for the Farm

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With at least one automobile on almost every farm a trailer becomes a useful and practical piece of equipment. The two-wheel trailer is convenient for light loads. It is easy to pull and usually trails well. A four-wheel trailer has a wider range of usefulness, however, and is more convenient and practical for much of the hauling that is to be done.

Commercial trailers are available for a large variety of uses. Farm implement manufacturers are building trailers that are designed especially to meet the needs of the farm. These trailers are equipped with anti-friction bearings and with pneumatic rubber tires. They are built for heavy hauling and may be pulled with tractor as well as with truck or passenger car.

On many farms, a four-wheel trailer built from an automobile chassis may be used to good advantage. Such a vehicle may be used for hauling on the road or about the farm, drawn with a truck or automobile. With proper pole and hitch

The Body
The design of the body on a four-wheel trailer presents a number of possibilities. The type of body will depend on the use to which it is to be put. If it is to be used exclusively for one particular job or other jobs of similar character, such as hauling stock for example, a body will be built especially for that purpose. If, however, it is to be used for a variety of work, the body will be such as best to meet the needs of all of these requirements.

It is usually desirable to have the bed as low as possible. If it is to be lower than the wheels, it must either be narrow enough to fit between the wheels, or a wheel-box must be provided above each wheel to allow sufficient clearance for it. If having the bed low is not very important it may be advisable to build sufficiently high to provide ample clearance for the wheels beneath the bed. Such a

hayrack. If the trailer is to be used on the road it is advisable to fasten the body securely to the chassis as is shown in Figure 1. This body is built of two 2" x 6" beams, spaced 36 inches, set on edge on the frame of the chassis. Crosswise on the beams are 2" x 6" joists spaced about 24 inches, on which the floor is laid. Stake holders are provided at the ends of the joists. These permit the use of stakes of desired length.

The Hitch

The hitch must be such that the vehicle will trail satisfactorily and that it will remain in adjustment. Satisfactory commercial hitches are on the market. In Figure 2 is shown, somewhat in detail, a hitch that was built on the trailer shown in Figure 1.

While this general type of hitch may be built for other makes of automobiles, the details as shown and described here will need to be modified somewhat on different makes. There is no direct connection between the pole and the tie rod as is the case with many hitches in use. Instead, the end of the pole is fastened to the middle of the front axle by means of a joint which allows it to swing in any direction. Steering is accomplished by means of a connecting link which is attached to the pole about 12 inches ahead of the axle and to a steering arm which is made from a piece of strap iron and attached to the spindle as illustrated in Figure 2. The drag link which previously connected the steering gear to the steering arm on the spindle is used to make this connecting link.

Plans showing the details of construction of the body illustrated in Figure 1 are available on application from the Division of Agricultural Engineering, University Farm, St. Paul, Minnesota.

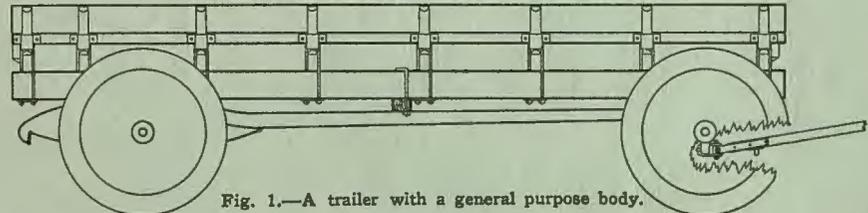


Fig. 1.—A trailer with a general purpose body.

arrangement it may be converted to a horse drawn vehicle and may then be used to replace the farm wagon.

The Chassis

In selecting a chassis it is well to see that the spindles and bearings are in good condition and that there is not too much play in the linkage. If there has been considerable wear it may be advisable to replace the bushings.

If a farmer is mechanically inclined and has proper facilities he may undertake the building of a trailer. If, however, facilities are lacking, it would be better to secure the assistance of the local garage mechanic or local blacksmith. In Figure 1 is shown a trailer that was built from a Dodge chassis.

For ordinary use the chassis will be used without much change. The pole is attached to the front axle. If it is to be used for carrying heavy loads drawn with horses, or otherwise used for field work resulting in large stresses in the frame, it may be advisable to insert a member between the front axle and the rear axle, or to some other part of the frame. The automobile chassis was built to be pushed rather than pulled.

body is shown in Figure 1. This bed stands 40 inches above the ground. It is 12 feet 9 inches long and 6 feet wide. It may be made somewhat larger or smaller than this if desired, altho a bed of about the size shown is convenient for a large variety of work. Bolsters of standard size could be built on the frame to accommodate the standard wagon box or

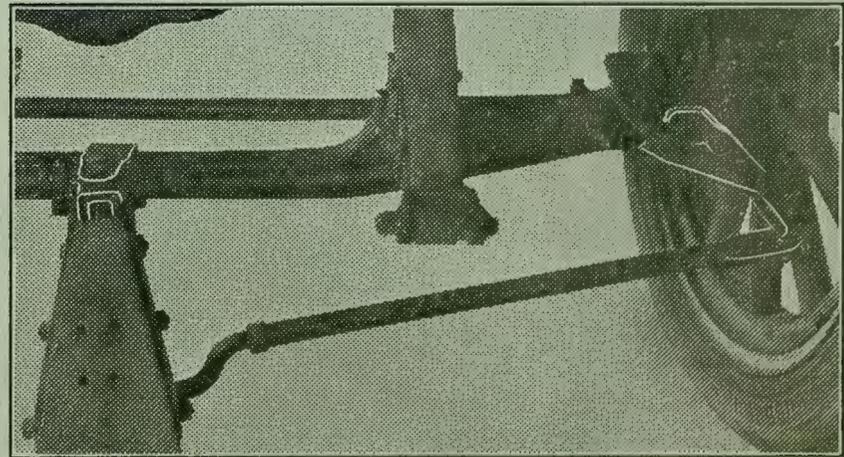


Fig. 2.—General plan of a satisfactory type of trailer hitch.