(No Model.)

A. H. PARKER.

HAY RACK.

No. 491,442. Patented Feb. 7, 1893.

Fig. 3.

Fig. 1.

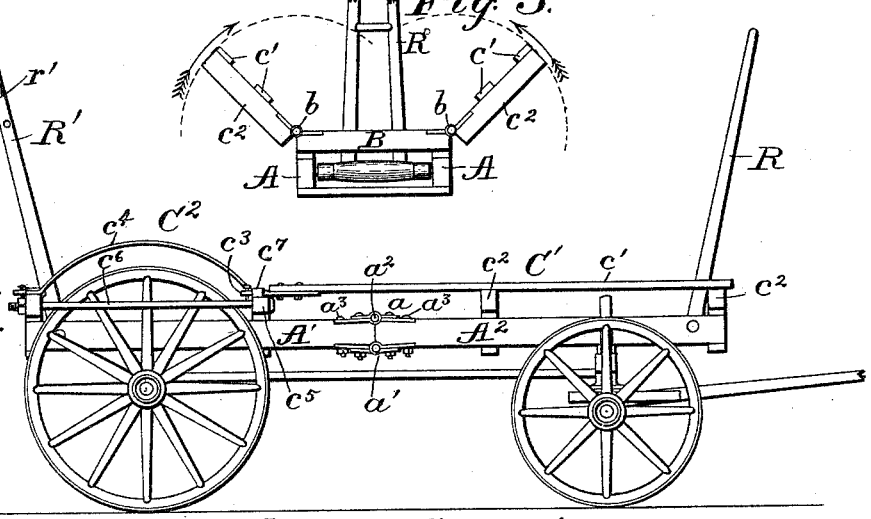


Fig. 2.

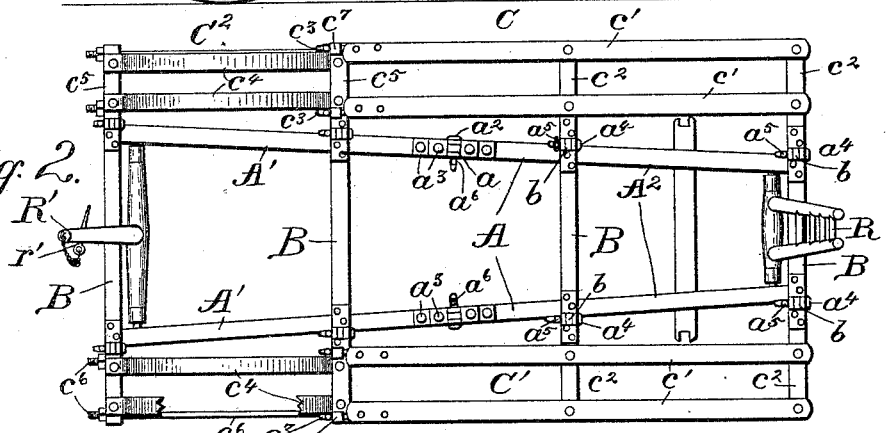
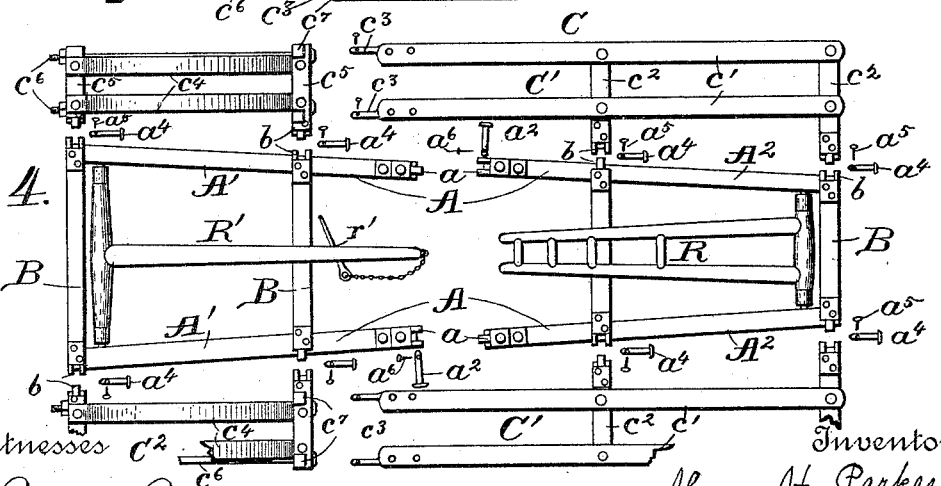


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

ABRAM H. PARKER, OF CLINTON, ILLINOIS.

HAY-RACK.

SPECIFICATION forming part of Letters Patent No. 491,442, dated February 7, 1893.

Application filed July 22, 1892. Serial No. 440,867. (No model.)

To all whom it may concern:

Be it known that I, ABRAM H. PARKER, a citizen of the United States, residing at Clinton, in the county of De Witt and State of Illinois, have invented certain new and useful Improvements in Hay-Racks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in devices for supporting hay, straw, &c., and it consists of certain novel features hereinafter described and claimed.

Reference is had to the accompanying drawings, wherein the same parts are indicated by the same letters.

Figure 1 represents a side elevation of my hay carriage in position upon the running gear of a farm wagon. Fig. 2 represents a plan view of the hay carriage detached, one of the bows being broken away to show the strengthening rod. Fig. 3 represents an end elevation of the same, indicating the manner of folding over the side frames. Fig. 4 represents a plan view of the different parts detached.

My hay and straw carriage consists essentially of a frame composed of the side pieces A A, and the cross pieces B B B B B. The side pieces A are each composed of two parts A′ and A^2, hinged together at their ends by a double-hinged joint as shown at a and a'. The pieces A′ and A^2 are of the same length, and so this joint comes midway of the length of the side pieces A A. This double hinged joint is formed by two hinges a and a'. The hinge a has one half of itself secured to the top of the end of the frame piece A′, and the other half secured to the top of the end of the frame piece A^2. The hinge a' is secured to the under side of the ends of the frame pieces A′ and A^2 in the same way. These hinges may be secured to the frame pieces by means of screws or bolts, but I prefer the latter as shown in the accompanying drawings at a^3, where bolts pass through the two parts of the hinges on the upper and lower sides of the frame, and through the frame pieces, thus providing a very strong joint. The two halves of these hinges a and a' are joined together by the pin or bolt a^2 passing therethrough. This pin is provided with a key a^6 for holding the same in place in the hinge. It will be seen that each and all of these pins may be readily removed;—allowing the parts A′ and A^2 to fold upon each other, or to be wholly detached from each other, by removing the pins from one pair of the hinges, or from both pairs as the case may be.

The rack R is pivoted between the side pieces by means of a rod passing through the side pieces and the base of the rack, or in any other suitable way. The rack R′ is pivoted in the same manner, but while I have shown it as composed of one standard having a pin passing diagonally downward therethrough at r' for holding the pole used for securing the load, it is obvious that I may use any other suitable form of rack.

The side frames C are composed of the two sections C′ and C^2, joined together by a stud and socket as shown. The section C′ is composed of strips c' of plank or other suitable material secured by bolts or screws to the cross pieces c^2. These cross pieces c^2 should preferably be of the same cross section as the cross pieces B to which they are hinged. The strips c' are provided at their rear ends with studs c^3 adapted to engage in holes or sockets c^7 on the forward one of the cross pieces c^5 of the section C^2. These studs may be held in the sockets c^7 by means of a key, passing through a hole provided near the end of the said stud.

The section C′ of the side frame prevents the hay straw &c. from bearing upon the front wheels of the wagon, and provides a wider bed for it to rest upon.

The section C^2 comes directly over the rear wheels of the wagon, and as the rear wheels of the wagon are usually of greater diameter than the front wheels, bows c^4 of any suitable material are used to prevent the overhanging edge of the load from bearing on the the rear wheels. The ends of these bows are secured to the cross pieces c^5 by bolts, or in any other suitable manner. In order to strengthen this section, and to prevent the cross pieces c^5 from spreading apart under a heavy load, rods c^6 screw-threaded at one of their ends to receive a nut, are provided.

These rods should be arranged so that the wheels may revolve between them, as will be readily understood by reference to Fig. 1. These two sections C′ and C², when the studs c^3 are held in the sockets c^7, form one continuous side frame, and this side frame is hinged to the frame A by means of hinges b similar to the hinges a and a', connecting the cross pieces c^2 of the section C′ and cross pieces c^5 of the section C² with the ends of the cross pieces B of the frame A. These hinges are secured to the cross pieces by means of bolts or screws, and each hinge is provided with a pin a^4 passing therethrough and held in place by a key a^5 as shown in Fig. 2. It will be seen that these side frames C may be folded over on the frame A as indicated by the arrows in Fig. 3; or may be detached therefrom by removing the pins a^4; and that the sections C′ and C² may be separated from each other by removing the studs c^3 from the sockets c^7. It will also be seen that by removing the pins from hinges a of the frame A, the said frame may be folded under, and that by removing the pins from the hinges a' the frame A may be folded over; and furthermore it will be seen that by removing all the pins from both the hinges a and a', the frame will be in two pieces (see Fig. 4), and further that by removing the pins from the hinges b the sections C′ and C² will also be detached as shown in Fig. 4, and all the separate parts may be stowed away in a very small space when not in use.

The racks R and R′ being detachable, they may be removed if so desired.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is:—

In a hay rack or carriage, the combination of a frame A composed of the two pairs of side pieces A′ and A² of equal length joined together at their inner ends by double-hinged joints provided with removable pins or bolts; cross pieces B bolted upon said side pieces, side frames C′ composed of slats c' and cross pieces c^2 removably hinged to the frame A; side frames C² also removably hinged to said frame A, said side frame C² being composed of bows c^4 and cross pieces c^5, with rods c^6 for preventing the said cross pieces c^5 from spreading under pressure and sockets c^7 on the forward one of said cross-pieces c^5 to engage studs c^3 on the rear ends of slats c' of the side frames C²; with any suitable end racks or standards R and R′ all joined together substantially as and for the purposes described.

In testimony whereof I affix my signature in presence of two witnesses.

ABRAM H. PARKER.

Witnesses:
JNO. G. DAVIS,
H. C. HILL.