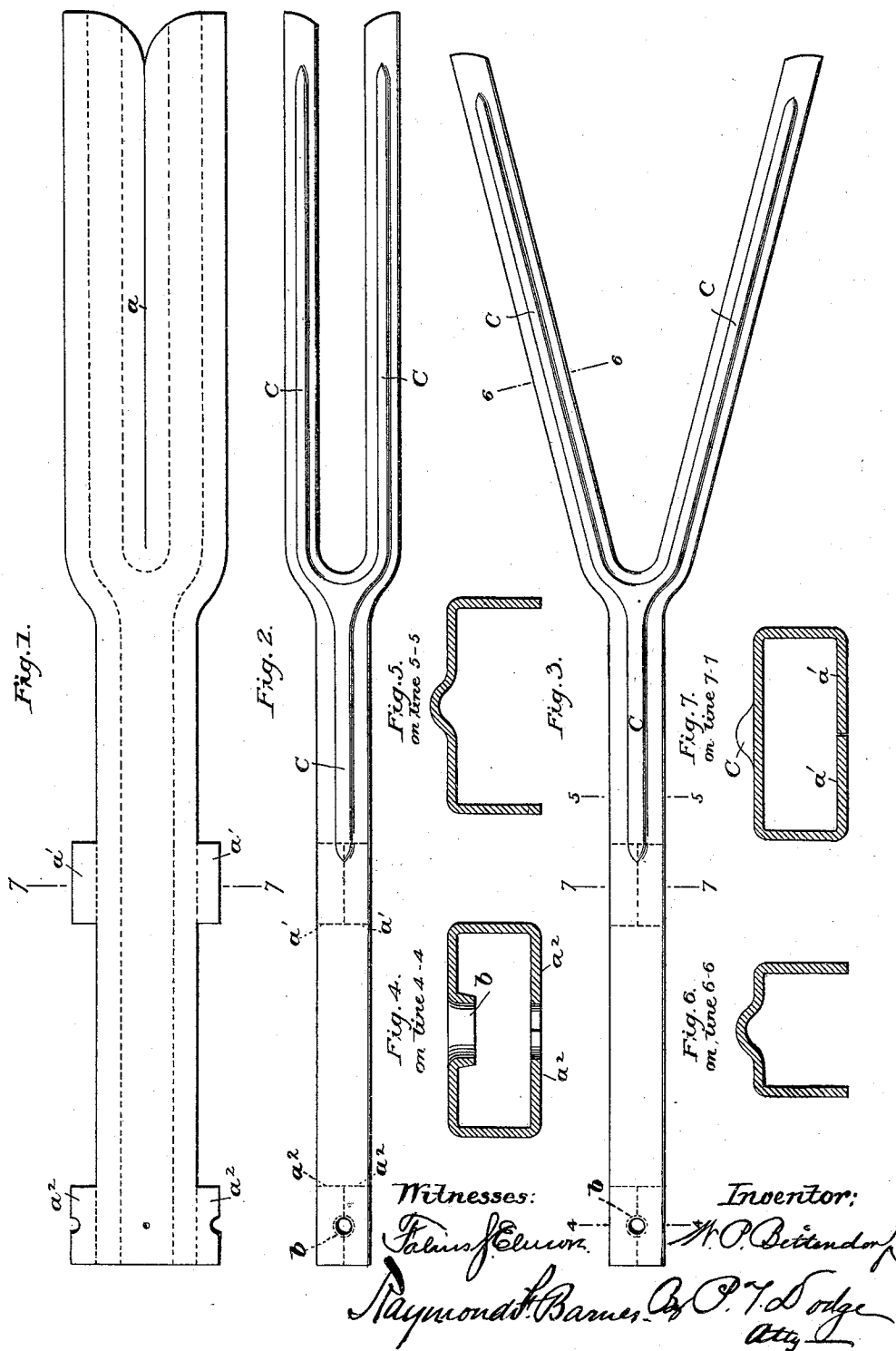


(No Model.)

W. P. BETTENDORF.
METALLIC FRAME FOR WAGONS.

No. 479,620.

Patented July 26, 1892.



UNITED STATES PATENT OFFICE.

WILLIAM P. BETTENDORF, OF DAVENPORT, IOWA.

METALLIC FRAME FOR WAGONS.

SPECIFICATION forming part of Letters Patent No. 479,620, dated July 26, 1892.

Application filed January 15, 1892. Serial No. 418,134. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM P. BETTENDORF, of Davenport, county of Scott, and State of Iowa, have invented a new and useful Improvement in Metallic Frames for Wagons, &c., of which the following is a specification.

The object of this invention is to provide in simple, cheap, and durable form a reach and rear hounds for a wagon. Ordinarily wagon-reaches are constructed of wood with diverging hounds spliced to the rear end.

My invention provides for a reach and its hounds made complete from one piece of sheet metal.

In producing my device I cut or stamp from sheet metal a blank of suitable outline incised or divided longitudinally at the rear end. I spread the rear end so that its ends diverge, and I bend the entire device in cross-section throughout its length, so that it presents a semi-tubular or approximately tubular form, whereby it is given the necessary rigidity. The form may be modified according to the requirements of the case or the fancy of the constructor, provided only a construction such as shown herein is retained.

In the accompanying drawings, Figure 1 represents a blank of the preferred form. Fig. 2 is a plan view showing the manner in which this blank is bent in cross-section. Fig. 3 is a top plan view of the completed device. Figs. 4, 5, and 6 are cross-sections of the corresponding lines of Fig. 3. Fig. 7 is a cross-section on the line 7 7 of Figs. 1 and 3.

Referring to Fig. 1, it will be observed that the blank therein shown consists of a single piece of a length a little greater than that of the required reach and hounds, its rear end being wider than the remaining portion and provided with a longitudinal incision a . Somewhat forward of the middle the body of the blank is provided with lateral projections a' , and at the forward end it is provided with similar projections a'' . I bend, fold, or double this blank, by means of dies or otherwise, along the dotted lines of Fig. 1 until it assumes in top plan view the form shown in Fig. 2 and in cross-section at various points the forms shown in Figs. 4, 5, and 6. At the forward end the sides are bent downward

and the lips or ears a'' turned inward on the under side until they meet at the center, so that in cross-section a tubular form is presented, as in Fig. 4. Through this tubular forward end a vertical hole is formed to receive the king-bolt. In forming the hole through the top the metal is preferably turned downward, so as to produce an annular flange b , in order to provide an increased wearing-surface and prevent the hole from being unduly enlarged by use. The opening through the under side is secured by notching the two ends of the ears a'' , as shown in Fig. 1, so that when brought together a hole is left between them. At the point where the ears a occur they are brought together on the under side, so as to give the reach a tubular form at this point also, as shown in Fig. 7, and this in order that it may present a broad bearing and wearing face on the under side for the sway-bar. Except at the points named the body portion of the reach may be open on the under side and of the shape shown in Fig. 5, this form affording the necessary strength and rigidity without acquiring an undue weight. The two rear arms forming the hounds are given a like form in cross-section, as shown in Figs. 2 and 6, and are finally bent apart in diverging lines, as shown in Fig. 3. Increased strength may be given by raising a rib or corrugation C lengthwise in the hounds and in the rear end of the reach; but this is not a necessary feature.

While I prefer to leave the body of the reach and the hounds in the open or semi-tubular form shown in Fig. 5, it is to be understood that the form may be modified within reasonable limits.

Having thus described my invention, what I claim is—

1. The combined wagon reach and hounds constructed as herein described and comprising a single hollow reach and diverging hollow hounds integral therewith.

2. As a new article of manufacture, the combined wagon reach and hounds constructed as shown and described and comprising a single semi-tubular reach and diverging semi-tubular hounds integral with the reach.

3. The combined wagon reach and hounds

constructed as shown and described and comprising a single reach and diverging hounds integral therewith, the reach being tubular at points to afford bearings for the king-bolt
5 and sway-bar and semi-tubular at all other points.

In testimony whereof I hereunto set my

hand, this 15th day of December, 1891, in the presence of two attesting witnesses.

WILLIAM P. BETTENDORF.

Witnesses:

THOS. B. CARSON,
E. D. CLARK.