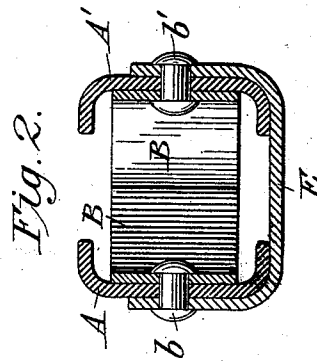
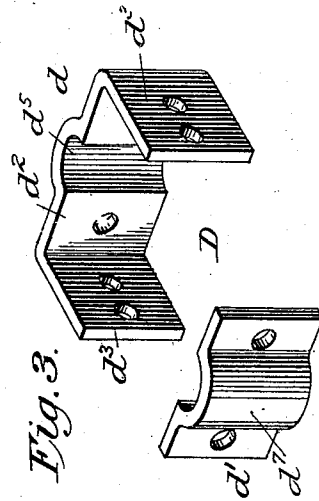
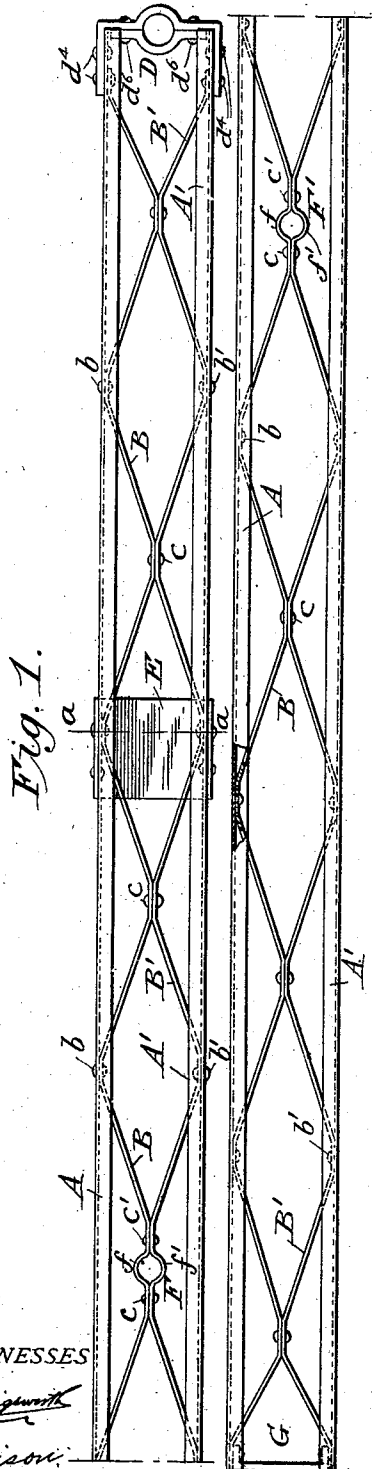


No. 857,279.

PATENTED JUNE 18, 1907.

J. L. HECHT.
WAGON REACH.

APPLICATION FILED DEC. 11, 1906.



WITNESSES

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JOSEPH L. HECHT, OF DAVENPORT, IOWA, ASSIGNOR TO DAVENPORT WAGON COMPANY, A CORPORATION OF IOWA.

WAGON-REACH.

No. 857,279.

Specification of Letters Patent.

Patented June 18, 1907.

Application filed December 11, 1906. Serial No. 347,243.

To all whom it may concern:

Be it known that I, JOSEPH L. HECHT, of Davenport, county of Scott, and State of Iowa, have invented a new and useful Improvement in Wagon-Reaches, of which the following is a specification.

The object of this invention is to produce a wagon-reach in which will be combined, lightness, strength and durability; and the invention consists in constructing the reach of built-up or structural form, comprising two complementary longitudinal members held spaced apart as a single body, and formed at suitable points to receive the king-bolt, by which it is connected with the front gear of the wagon, and to receive the reach-bolt by which it is connected with the rear gear of the wagon.

The invention consists also in the details of construction and combination of parts hereinafter described and claimed.

In the accompanying drawings:—Figure 1 is a top plan view of my improved reach. Fig. 2 is a transverse sectional elevation through the same on the line *a-a*, showing the form and manner of application of the wear-plate. Fig. 3 is a perspective view of the parts of the king-bolt bearing detached.

Referring to the drawings:—my improved reach comprises two parallel longitudinal members *A A'*, preferably in the form of commercial channel bars spaced apart, with the channels facing inward and held apart by means of braces or straps extending between the bars. The braces may be of any suitable form which will serve to hold said bars firmly in fixed relations as a single body, but I prefer to adopt the form of braces shown in the drawings, where it will be seen that two braces *B B'* are employed, each of which extends continuously from one end of the reach to the other, being riveted at intervals to the channel bars within the channels as at *b b'*, etc. and being riveted to each other as at *c c'* at points between their points of connection with the bars. These braces are formed from flat strips of metal, and they extend alternately inward toward each other where they are riveted together, and outward within the channels of the bars where they are riveted to the latter.

At its forward end, the reach is provided with a king-bolt bearing or socket *D* to receive the king-bolt, by means of which the

reach is connected with the front gear. This bearing is in two parts, an outer U-shaped member *d*, and an inner member *d'*. The outer member is formed from bar-steel and is bent so as to present a transverse portion *d²*, extending across the end of the reach, and two longitudinal arms *d³* extending rearward along the outer sides of the channel bars, to which the arms are riveted as at *d⁴*. The transverse portion of this member is bent outward between its ends as at *d⁵*, forming on its inner side a semi-circular socket constituting a part of the circular bearing for the king bolt. The inner member *d'* of the bearing is also formed from bar-steel and extends transversely between the channel bars, with its ends seated in the channels and riveted as at *d⁶* to the inner face of the outer member. Opposite the semi-circular socket in the outer member, the inner member is bent outward to form a similar semi-circular socket *d⁷* which, in connection with the socket in the outer member, will form a circular opening or bearing for the king-bolt. This bearing, formed and applied in the manner described, serves in effect as a cap or head for the end of the reach, and effectually maintains the spaced relations of the bars at this point.

Some distance in rear of the king-bolt bearing, the reach has applied to it at the point where the wear from the front gear hounds is received, a wear-plate *E* extending across the under sides of the channel bars, with its ends bent upward and riveted to the sides of said bars. In rear of the wear-plate, the reach is provided with sockets or bearings *F F'* for the reach-bolt, by means of which the reach is attached to the rear gear. In the present instance there are two of these bearings, in order to provide for the attachment of the reach at different points. The bearings are formed by the braces *B B'* which, where they approach each other and are riveted together, are each bent outward semicircularly as at *f f'* to form a circular opening, the rivets *c c'* being passed through the braces on opposite sides of the sockets in order to maintain the form of the same. At their rear extremity, the two channel bars are spanned by a plate *G*, the ends of which are bent forwardly and seated and riveted to the ends of the two bars within the channels, preferably against the rear extremities of the two braces.

It will be observed from the construction described that my improved reach, embodying the two complementary channel-bars, constitutes a rigid, durable and strong structure formed wholly of metal and of a structural form well adapted to withstand without breakage or injury the severe strains to which it is in practice subjected; and it will be understood that the details of the structure, such as the manner of bracing the members, the form of the king-bolt bearing, the reach-bolt bearing, and other features, may be modified within the skill of a mechanic without departing from the limits of my invention, provided the principles of construction are substantially as above described.

Having thus described my invention, what I claim is:—

1. As a new article of manufacture, a structural-metal wagon reach complete in itself and independent of the front and rear gears to which it is adapted to be detachably attached, said wagon reach comprising two complementary metal members, braces connecting said members and holding them rigidly spaced apart as a single elongated structure, a king bolt bearing connected with the forward extremities of said complementary members; whereby the reach is adapted to be detachably connected with the front gear, and means whereby said reach is adapted to be connected detachably with the rear gear.

2. A wagon-reach comprising two complementary longitudinal members spaced apart, and a king-bolt bearing in the form of two parts, one of said parts extending across the front ends of said members and fastened to the sides of same, and the other part extending between said members and secured to the part of the bearing first mentioned.

3. A wagon-reach comprising two complementary longitudinal members spaced apart, a king-bolt bearing attached to and forming a connection between said members at the front, and a reach-bolt bearing attached to said members in rear of the king-bolt bearing.

4. A wagon reach comprising two longitudinal complementary members held spaced apart and constituting a single rigid structure, and a wear plate extending across the under side of said reach, and bridging the space between the complementary members, said wear plate presenting a flat continuous

wear surface, and having its ends bent upward and riveted to the outer sides of said members respectively.

5. A wagon-reach comprising two longitudinal complementary members, braces fastened to the inner sides of said members and extending inward toward each other and connected together, said braces being bent outward at their points of connection with each other, to form a reach-bolt bearing.

6. A wagon-reach comprising two longitudinal complementary members, braces connecting said members and holding them spaced apart, said braces being bent to form a reach-bolt bearing, and a king-bolt bearing applied to and connecting said members at the front.

7. A wagon reach comprising a pair of complementary channel iron members arranged in spaced relation, braces attached to and connecting said members, and a king bolt bearing fixed to the reach and comprising a pair of cooperating pieces, one of said pieces having bearing portions seated on the flat faces of and attached to the members, and the other piece being attached to the first named piece and having its ends seated in the channeled faces of the members.

8. A wagon reach comprising a pair of complementary members arranged in spaced relation, a bearing attached to and connecting the forward ends of the members and provided with a bolt receiving opening, a cross-plate extended between and attached to the rear ends of the members for connecting the same, and a brace attached to and connecting the members at a point between their ends and having a bolt receiving opening.

9. A wagon reach comprising two complementary channel-iron members, with the channels arranged inward, braces connected to said members within the channels and holding them spaced apart as a single rigid structure, and a king bolt bearing connected with the forward ends of said members.

In testimony whereof I hereunto set my hand this thirtieth day of November, 1906, in the presence of two attesting witnesses.

JOSEPH L. HECHT.

Witnesses:

M. LOUISE DODGE,
LEON ZOECKLER.