(No Model.) 2 Sheets—Sheet 1.

T. F. UPDEGROVE.

WAGON RUNNING GEAR.

No. 491,230. Patented Feb. 7, 1893.

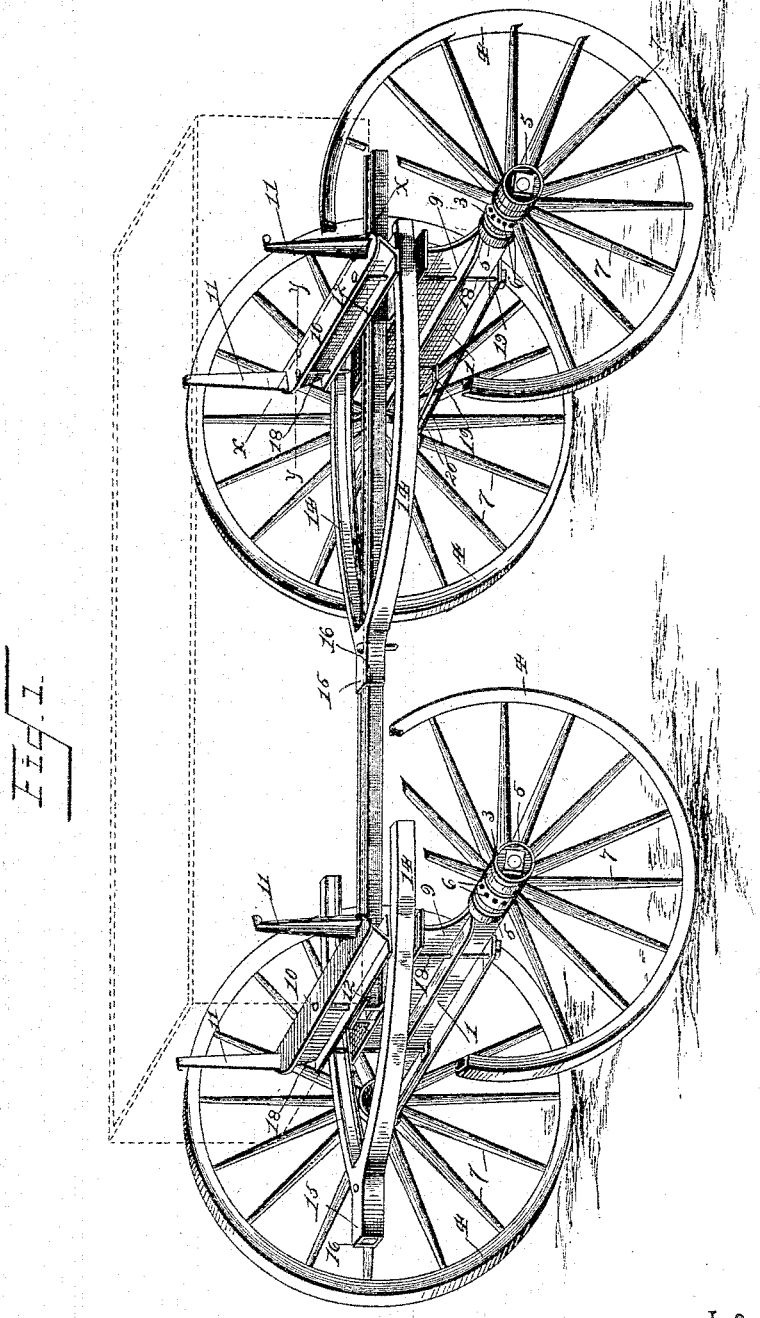

Fig. 1.

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(No Model.) 2 Sheets—Sheet 2.

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Fig. 2.

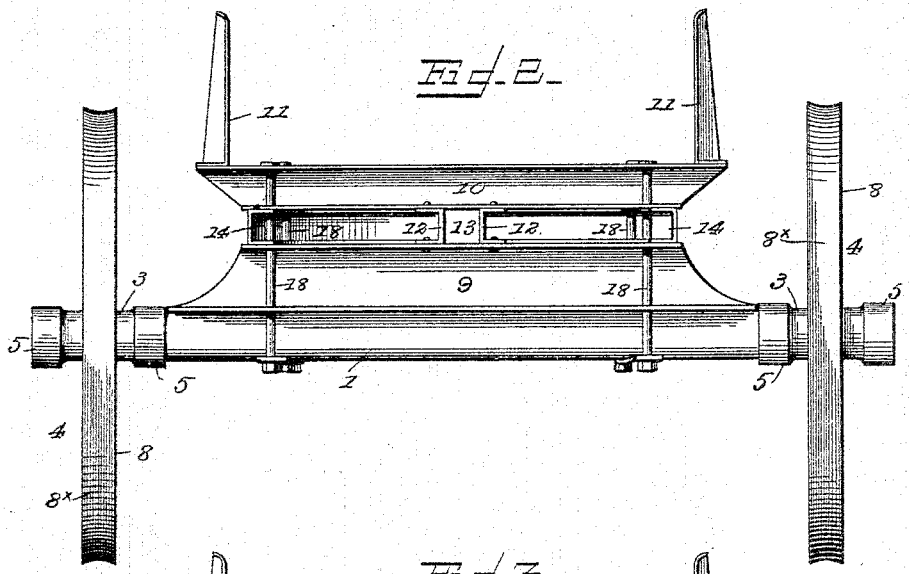


Fig. 3.

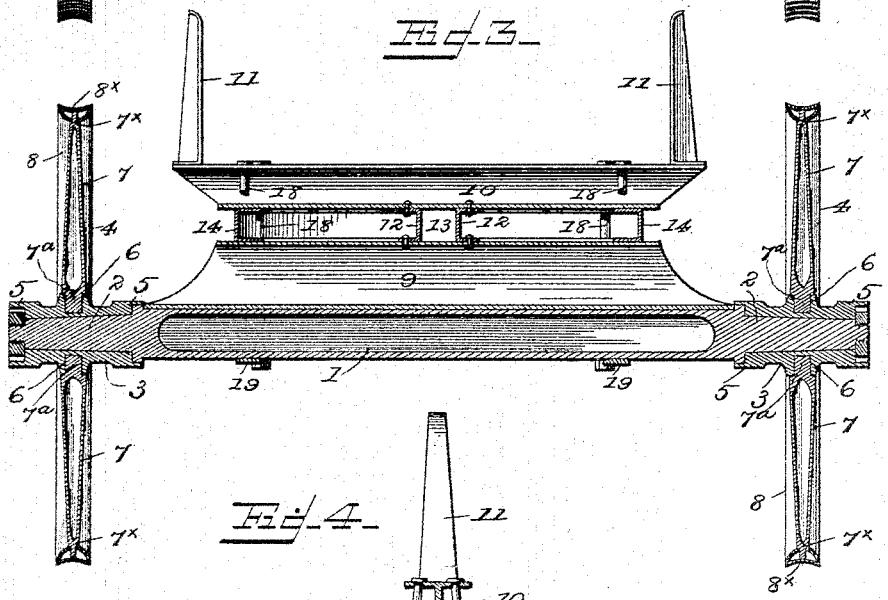
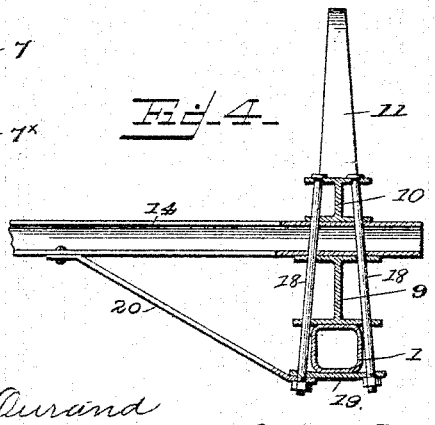


Fig. 4.



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UNITED STATES PATENT OFFICE.

THOMAS F. UPDEGROVE, OF AVERY, KANSAS.

WAGON RUNNING-GEAR.

SPECIFICATION forming part of Letters Patent No. 491,230, dated February 7, 1893.

Application filed July 5, 1892. Serial No. 438,936. (No model.)

To all whom it may concern:

Be it known that I, THOMAS F. UPDEGROVE, a citizen of the United States, residing at Avery, in the county of Reno and State of Kansas, have invented a new and useful Wagon, of which the following is a specification.

This invention relates to certain new and useful improvements in wagons, and consists in the construction and arrangement of the parts thereof as will be more fully hereinafter described and claimed.

The object of this invention is to provide a metal wagon constructed of channeled and hollow steel or iron, both to lighten the structure and to increase its strength and durability, the parts being simple and effective in their construction and operation, strong and durable, and comparatively inexpensive in manufacture.

In the drawings—Figure 1 is a perspective view of a wagon embodying the invention. Fig. 2 is a rear elevation of the same. Fig. 3 is a transverse vertical section on the line *x*—*x*, Fig. 1, and taken through the wheels in addition. Fig. 4 is a section on the line *y*—*y*, Fig. 1.

Similar numerals of reference indicate corresponding parts in the several views.

The body employed in connection with this wagon may be made of either wood or metal, but for many purposes it is preferable to construct the same of metal, as it is obviously apparent that metal should be used with advantage in connection with the remaining metallic construction of the running gear.

The main feature of the invention resides in the construction of the running-gear, and referring to the drawings, the numeral 1, either in the front or back portion of the vehicle, designates the axle, which is constructed of hollow iron or other suitable metal, and has the ends thereof formed into spindles 2 to receive the hubs 3 of wheels 4, the said hubs having sand-boxes 5, projecting from and formed with opposite sides thereof, and the hub proper is constructed with recesses 6, in which are fitted the inner ends of tubular spokes 7, the ends of the latter being solid as at 7^{x} and 7^{a}. The rim or tread 8, in this instance, is constructed with a circumferential groove or concavity 8^{x} in order to facilitate the movement of the wheel over sandy and boggy or muddy ground, and assist in raising the wheel from a rut, which will more quickly result by the construction set forth than where a tread with a straight surface is used, which is owing to the grip or biting effect produced by the edges of the grooved wheel in the ground. On the axle 1 is an axle beam 9, constructed of I-shaped iron to provide upper and lower flanges projecting from opposite sides thereof. At the ends the said beam is beveled or cut away at an angle either curved or straight as may be desired, and on the top portion of the said beam is supported a bolster 10 also constructed of I-shaped iron and having standards 11 at opposite ends thereof of T-shaped form to provide an exterior strengthening rib as will be seen. The opposite ends of the said bolster 10 are beveled inward, and in order to properly support the bolster in connection with the hounds U-shaped angle-plates 12 are centrally bolted thereto and to the said beam and have an intervening space 13 between the same for a purpose which will be hereinafter more fully referred to. Between the said hound and bolster are mounted the rear ends of the hounds 14, which are preferably constructed of U-shaped iron to provide flanges, and the front ends thereof support a box 15, with an opening 16 therein, in which a reach-bar 17 is adjustably mounted and extends through the opening or space 13 between the angle-plates 12 when in proper connecting position. The said hounds 14, and the bolster 10, and beam 9 are connected by vertical bolts 18, which pass through the flanges thereof on both sides of the axle 1, and are secured to clips 19, bearing against the under side of the axle, to which are also attached braces 20, depending obliquely from the under side of the said hounds.

The parts thus far described are all constructed of metal and preferably in the form set forth. The front section of the running gear is similar in construction to the rear section thereof, as has just been described, with the exception that a fifth-wheel may be employed which will be of suitable construction and well known form and will be provided in connection with the several parts. In addition the front part of the said front section of the run-

ning-gear will be supplied with suitable braces and yokes for the attachment of the pole, and all of said parts are also constructed of metal.

The several parts are quickly and conveniently connected and will be provided with suitable bolt-holes at various points when manufactured, for the reception of the several connecting bolts, and it will be observed that owing to the flanged construction of the iron or other metal employed in making the parts set forth, a reduced number of bolts is employed in connecting the same, as will be readily appreciated.

The metal employed in the manufacture of the device set forth may be wholly of one kind, such as steel or iron, or a combination of the two, which will be regulated by the strength desired, but in all events the spokes and rim of the wheels will be constructed of steel, as the greatest amount of wear and tear will be brought to bear on the same.

The construction heretofore set forth is especially intended to be used in connection with the rear axle-beam, and so much thereof is employed in connection with the front axle-beam as will permit of the use of a proper turn-table or device, such as a fifth-wheel or a king-bolt, and the construction hereinafter claimed will refer particularly to the rear axle-beam and its parts.

Having thus described the invention, what is claimed as new is:—

1. The herein described running-gear for a wagon, consisting of an axle, an axle-beam of I-shaped form to provide upper and lower flanges projecting from opposite sides thereof, an I-shaped bolster mounted on said beams and above the same and in like manner formed with flanges, and single bolts extending through the flanges of said parts at opposite sides and ends thereof and having their lower ends secured against the under portion of the axle-beam, substantially as described.

2. The herein described running-gear for a wagon, consisting of an axle, an axle-beam of I-shaped form to provide upper and lower flanges projecting from opposite sides thereof, U-shaped angle-plates centrally mounted on said axle-beam apart from each other to form a guide, an I-shaped bolster mounted on said angle-plate and secured thereto, a reach-bar adapted to fit between and move through said angle-plates, and a single bolt arranged at each of the opposite ends of said parts on opposite sides of the same and extending through the flanges thereof and secured at their lower ends against the under portion of the axle, a space also being formed by the said angle-plate between the bolster and axle-beam for the insertion and retention of the hounds, substantially as described.

3. The herein described running-gear for a wagon, consisting of an axle of hollow metal having solid ends formed into spindles, an axle-beam of I-shaped form to provide upper and lower flanges projecting from opposite sides thereof and having the ends beveled or cut away, an I-shaped bolster mounted on and above said beam, U-shaped angle-plates mounted between the said beam and bolster to provide an intervening space or guide, hounds of U-shaped form having portions thereof between the said beam and bolster and the front ends of the same formed into boxes, a tubular reach-bar adjustably mounted on the hounds and extending through the space or guide formed by the angle-plates, and vertical bolts extending through the flanges of the hounds, bolster, and beam and located on both sides of said parts at opposite ends thereof and being of single form at said opposite ends of said sides and having the lower ends of the same secured adjacent to the under side of the axle, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

THOMAS F. UPDEGROVE.

Witnesses:
J. C. JOHNSTON,
WM. J. ROOS.