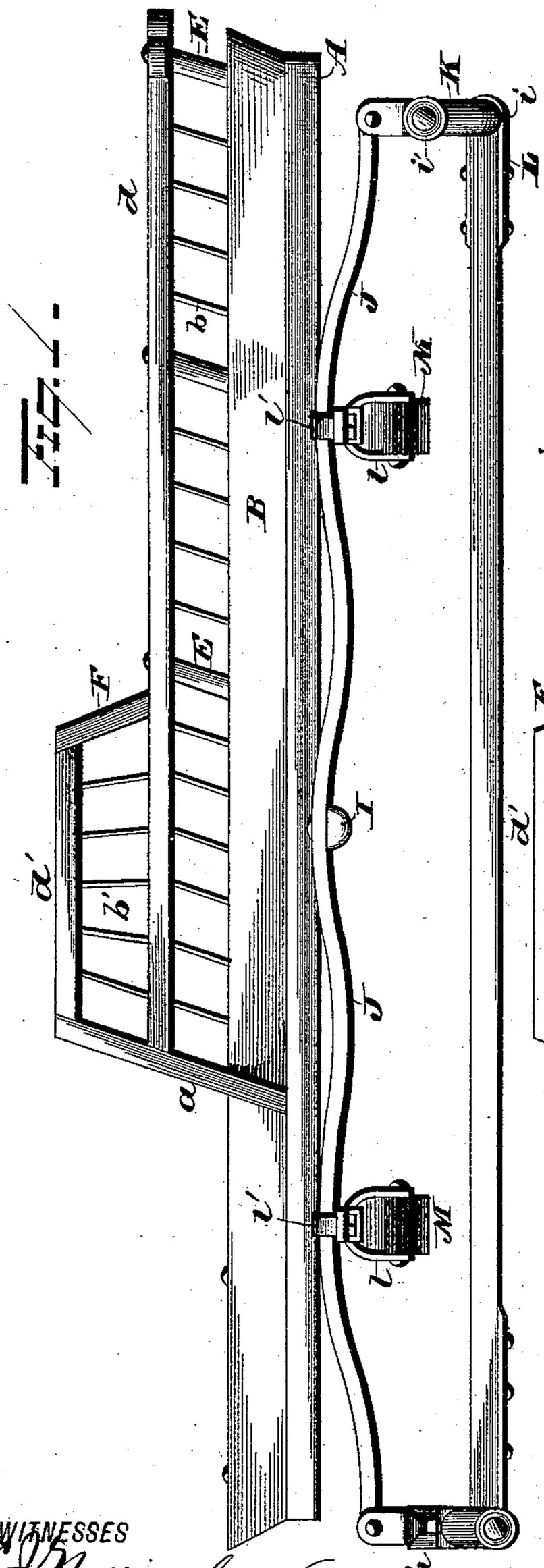
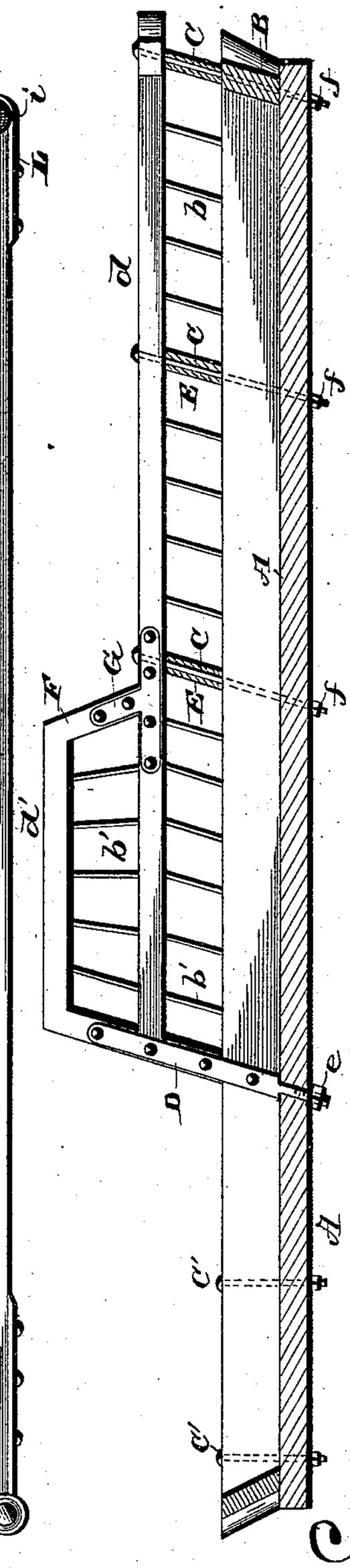
(Model.) 2 Sheets—Sheet 1.

C. M. BLYDENBURGH.

VEHICLE.

No. 289,883. Patented Dec. 11, 1883.





WITNESSES

E. L. Nottingham

S. G. Nottingham

INVENTOR

C. M. Blydenburgh

By Munn & Co.

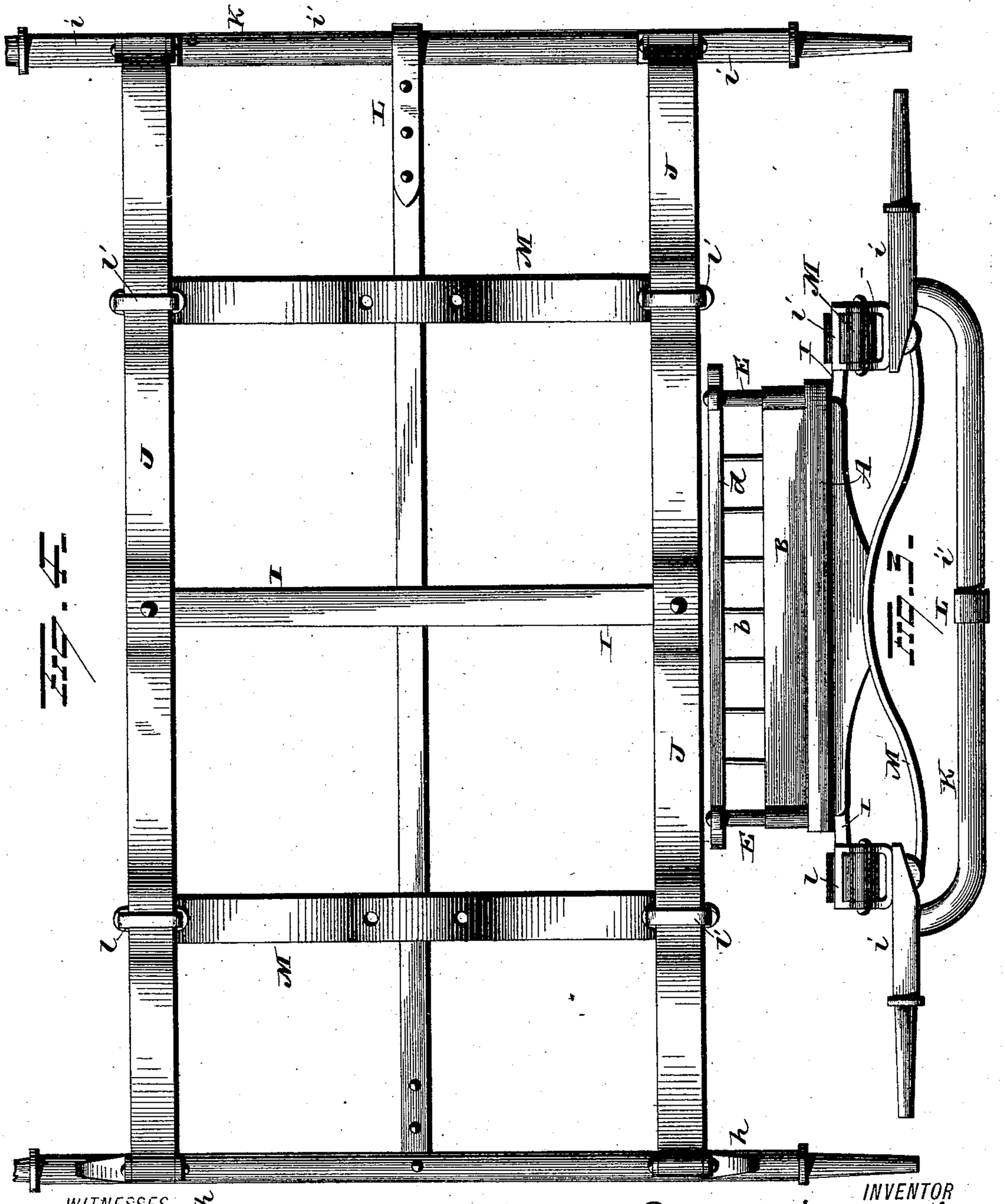
Attorney

(Model.) 2 Sheets—Sheet 2.

C. M. BLYDENBURGH.

VEHICLE.

No. 289,883. Patented Dec. 11, 1883.



WITNESSES

S. D. Nottingham

S. G. Nottingham

INVENTOR

C. M. Blydenburgh.

By H. A. Seymour.

Attorney

UNITED STATES PATENT OFFICE.

CHARLES M. BLYDENBURGH, OF RIVERHEAD, NEW YORK.

VEHICLE.

SPECIFICATION forming part of Letters Patent No. 289,883, dated December 11, 1883.

Application filed August 18, 1883. (Model.)

To all whom it may concern:

Be it known that I, C. M. BLYDENBURGH, of Riverhead, in the county of Suffolk and State of New York, have invented certain new and useful Improvements in Vehicles; 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 an improvement in vehicles, the object of the same being to construct a vehicle-body that will combine lightness and simplicity in construction and neatness in design with durability and efficiency in use; and with these ends in view my invention consists in the parts and combinations of parts, as will be more fully described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in side elevation of my improved vehicle. Fig. 2 is a longitudinal vertical sectional view, showing the irons employed for securing the sides to the bottom of the vehicle. Fig. 3 is a rear end view, and Fig. 4 is a plan view, of the running-gear with the body removed.

A represents the vehicle-bottom, to which the side and end panels, B, are rigidly secured. These panels are sufficiently high to prevent small packages from accidentally rolling out, and are provided back of the standards *a* with perforations arranged equidistant apart for the reception of the rods *b* and bolts C. The upper ends of these rods rest in the top rails, *d*, which latter are supported at suitable intervals apart on the spindles E, and at their two front ends by the standards *a*. These standards *a* are firmly secured to the panels B in the manner shown, and are further strengthened by the strap-irons D, which latter are firmly secured to the inner face of the standards and panels, while the lower ends thereof, which are reduced in size and screw-threaded, are passed through the bottom A and prevented from vertical displacement by the nuts *e*, screwed thereon under the bottom.

The spindles E are hollow, and are adapted to cover the bolts C, and also form a firm and substantial rest for the rails *d*. These spindles are placed at suitable intervals apart, and the bolts C are passed through the rails *d*, spindles E, panels B, and bottom A, and secured against vertical displacement by the nuts *f*. The front panel and the portions of the side panels in front of the standards *a* are secured to the bottom by the bolts C′.

F are short standards rigidly secured to the rails *d* by the T-irons G. The short standards, together with the standards *a*, support the short rails *d′*, on which the seat rests, the space between the short rails *d′* and rails *d* being filled in with rods *b′*. The standards *a* and F and rails *d′* form the seat-riser, and the peculiar manner of ironing it enables me to dispense with the objectionable braces commonly used under the seat, which block up the way and prevent the utilization of the space under the seat.

Bodies constructed substantially as described prevent small packages from falling out between the bars, and by using the long panels between the rails and bottom the body is materially strengthened and capable of withstanding a comparatively heavy strain.

To the bottom of the vehicle, and preferably under the seat, is rigidly secured the cross-bar I. The opposite ends of this cross-bar project outwardly beyond the bottom, and afford means for rigidly securing the spring side bars to the vehicle-body. These side bars, J, are preferably made of flat metal, curved substantially as shown to prevent them from yielding unnecessarily, and their front ends are secured in the usual manner to the bolster *h*, while their rear ends are secured in a similar manner to the rear axle. This axle K is composed of the two short bed-axle arms *i*, rigidly secured together by the metallic bar *i′*, the opposite ends of which are curved upwardly, and preferably secured to the under surface of the short bed-arms *i*, at a point outside of the inner ends of the said arms. These short bed-arms are cheaper than the ordinary axle, as they are secured to the bar *i′* without altering their original shape. The rear ends of the side bars are secured to suitable clips situated on the short bed-arms inside of the upwardly-projecting ends of the bar *i′*. This axle requires no wooden axle-bed, such as are commonly used, and enables me to hang the

body comparatively low without danger of its pounding on the axle, and also affords very convenient means for attaching the rear end of the drop-reach L by a strap, *j*, without the employment of the ordinary drop-reach irons.

The side springs, as before stated, are secured at their opposite ends to the front bolster and rear axle, and near their centers to the upper surface of the cross-bar I.

To the bottom of the body, and between the cross-bar and the front and rear axles, are secured the bow or cross springs M, the opposite curved ends of which are secured to loops *l*, while the latter are in turn secured to the clips *l'* of the side springs, J. These springs M are centrally secured to the body of the vehicle, and sustain the entire weight of the body and load to the side bars or springs, while the cross-bar I, which is attached to a very strong body, A, prevents the center of the body from bending or humping, and also prevents the center of the side bars from humping.

In this improved gear there are no braces from the back axle to the reach required to keep the parts in position, as the side bars perform this function, while the reach prevents the rear axle from tilting or turning; but in order to construct the vehicle the parts have to be joined in a substantial manner, so that a slight working or moving of a joint or joints will not make any appreciable difference in the relative position of the parts.

This invention is particularly adapted for light business-wagons, and, besides being strong, light, and durable, presents a very neat appearance.

It is evident that slight changes in the construction and relative arrangement of the several parts might be resorted to without departing from the spirit of my invention, and hence I would have it understood that I do not confine myself to the exact construction shown and described, but consider myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of my invention.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a wagon-body, the combination, with the bottom and panels supported on the bottom, of the side rails, rods interposed between the panels and side rails, and bolts connecting the side rails and panels and securing the parts together, substantially as set forth.

2. In a wagon-body, the combination, with the bottom and panels supported on the bottom, of the side rails, rods and hollow spindles interposed between the panels and side rails, and tie-bolts extending through the side rails, hollow spindles, panels, and bottom, for securing the parts together, substantially as set forth.

3. In a wagon-body, the combination, with the bottom, panels supported on the bottom, standards *a* F, and side rails, *d d'*, of the rods *b b'*, hollow spindles E, and bolts *c*, extending through the hollow spindles, substantially as set forth.

4. The combination, with the bottom, panels, and rails *d*, of the standards *a* and *b*, rails *d'*, and the irons D and G, substantially as and for the purpose set forth.

5. The combination, with a vehicle-body and side spring-bars connected thereto by suitable means, of the rear axle consisting of two independent spindles connected by a bar having a depressed central portion, and clips for the attachment of the side bars, substantially as set forth.

6. The combination, with a vehicle-body and spring side bars secured thereto at or near the center of the said body, of the rear axle composed of the short axles or spindles connected together by the curved bar, and clips for securing the side bars to the short axles, substantially as set forth.

7. The combination, with a vehicle-body and spring side bars secured thereto near the center of the said body, of the front bolster, the rear axle, the latter constructed as described, the reach-bar L, and clips for securing the ends of the spring side bars, respectively, to the front bolster and rear axle, substantially as set forth.

8. The combination, with a vehicle-body, the cross-bar I, cross-springs M, front bolster, and rear axle, of the spring side bars connected to the cross-bar and cross-springs, as described, and clips for securing the ends of the said side spring-bars, respectively, to the front bolster and rear axle, substantially as set forth.

9. The combination, with a vehicle-body and the springs M, secured thereto, of the spring side bars, front bolster, rear axle, a reach-bar connecting the front bolster and rear axle, and clips connecting the opposite ends of the spring side bars, respectively, to the front bolster and rear axle, substantially as set forth.

10. An axle consisting, essentially, of two short axles or spindles, *i*, connected together by the curved bar *i'*, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

CHARLES M. BLYDENBURGH.

Witnesses:

G. A. DOWNS,

D. N. GAY.