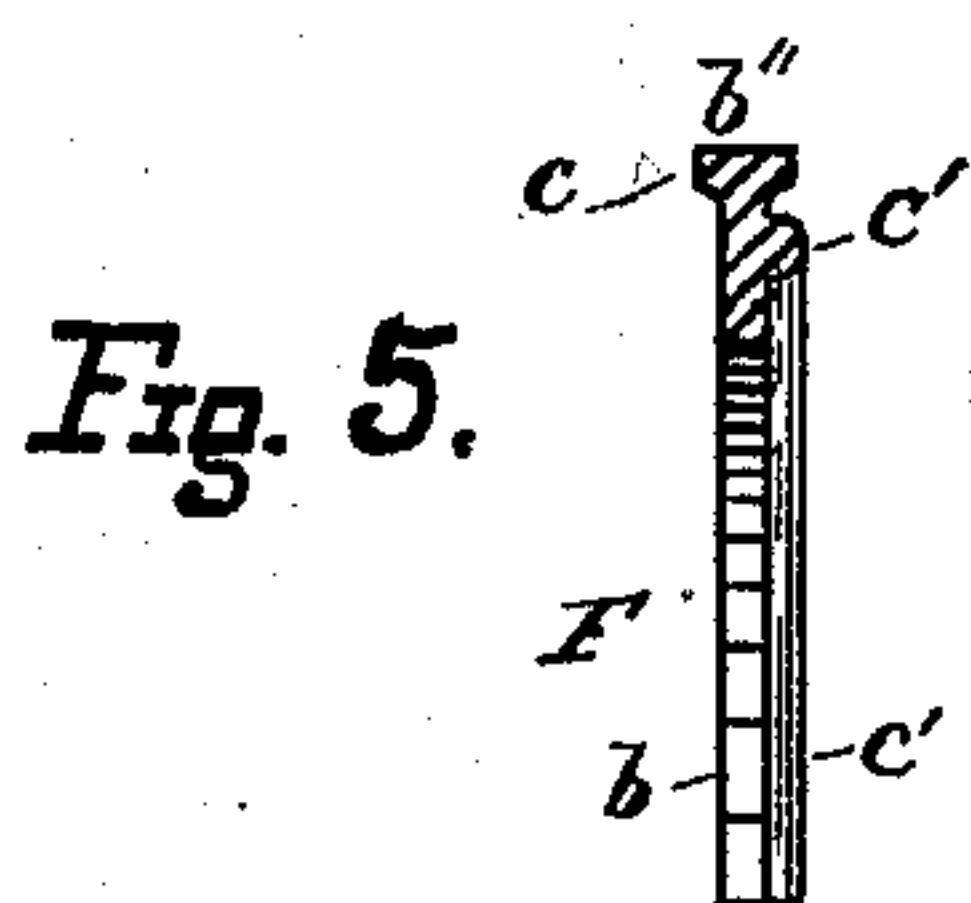
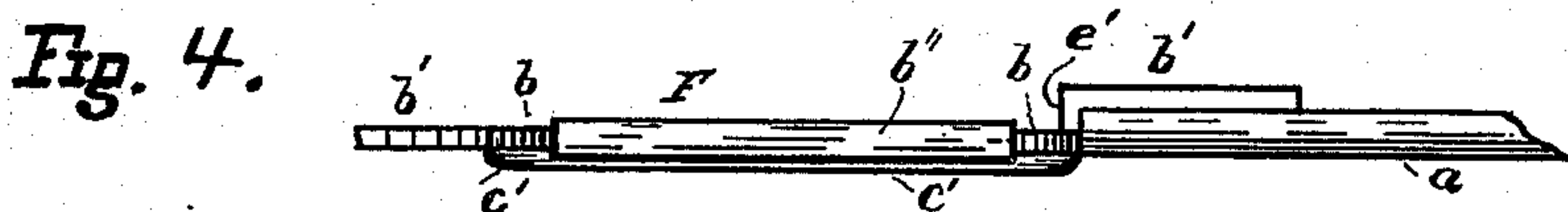
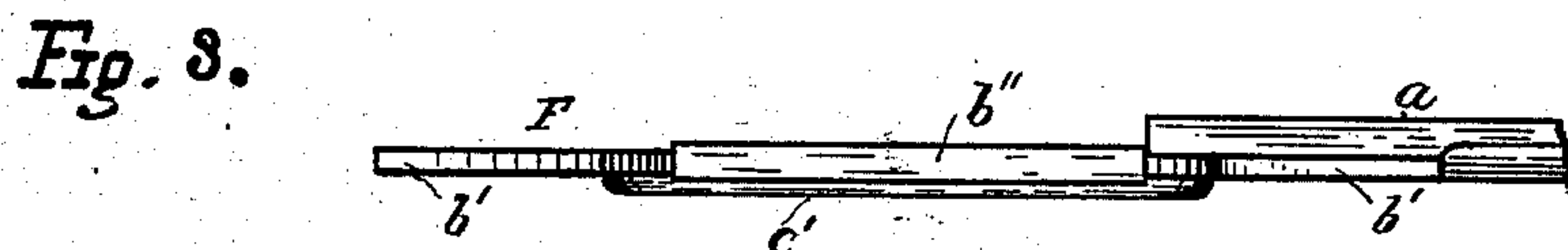
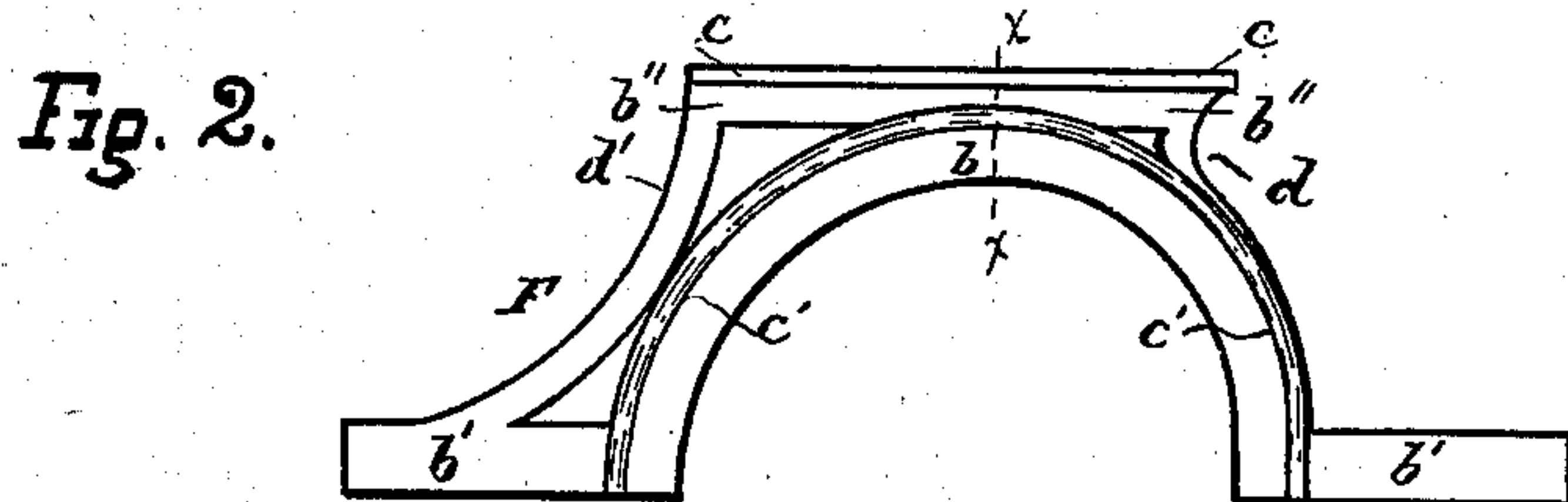
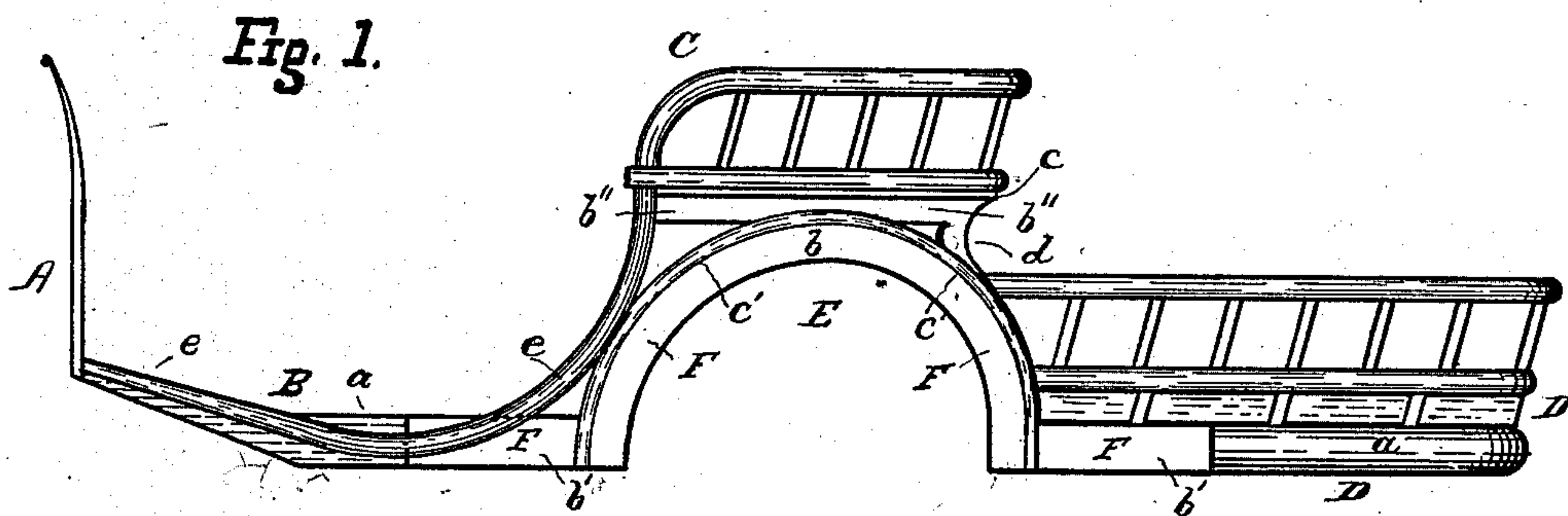


W. N. MORRELL & C. A. EDDY.

VEHICLE BODY.

No. 412,779.

Patented Oct. 15, 1889.



WITNESSES.

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UNITED STATES PATENT OFFICE.

WILLIAM N. MORRELL AND CHARLES A. EDDY, OF WATERLOO, NEW YORK.

VEHICLE-BODY.

SPECIFICATION forming part of Letters Patent No. 412,779, dated October 15, 1889.

Application filed July 11, 1889. Serial No. 317,141. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM N. MORRELL and CHARLES A. EDDY, citizens of the United States, and residents of Waterloo, in the county of Seneca and State of New York, have invented certain new and useful Improvements in Vehicle-Bodies, of which the following is a specification.

Our invention relates to improvements in that class of wagons in which the body is arched to permit the forward wheels to be turned more or less underneath it, in order that comparatively short turns may be made with facility. Heretofore various means have been employed for the purpose of constructing such arches, and which would serve as a seat-support, as well as aids for connecting the front and rear portions of bodies consisting in part of frame-work made of wood or for strengthening these parts or portions. Among these, iron or metallic sills and metal arches have been used for the purposes referred to; and our improvements relate to irons of this class, and consist in certain novel features of construction, all of which will hereinafter be more particularly described in connection with the accompanying drawings, forming a part hereof, in which—

Figure 1 is a side view of a vehicle-body provided with irons embodying our invention. Fig. 2 is a like representation of one of the irons detached. Fig. 3 is a top view of the iron shown in Fig. 2. Fig. 4 is also a top view of one of the said irons, showing a modification in form; and Fig. 5 is a section in the plane of the line *xx* of Fig. 2.

Like letters of reference indicate like parts.

A represents the dash-board; B, the foot-rest or forward part of the floor of the body; C, the seat, and D is a platform or horizontal extension next behind the arch E. The side bars, rockers, or sills *a a*, as will be perceived, do not extend across or underneath the arch.

F represents one of the arch-irons or undercut pieces, it being understood that two such parts are employed—one at each side of the body or arch.

The arches F we deem it best in practice to make of malleable iron; but they may, instead, be made of any other suitable metal. The distinctive features of the arch-iron are the arched portion *b*, the arms or horizontal

extensions *b' b'*, projecting, one forward and the other rearward, from the lower parts or ends of the arched portion, respectively, and the upper part or seat-supporting extension *b''*. All of these parts are flat or are in the same vertical plane, slanting upward when applied to use, or then having one edge above the other, as shown.

To facilitate the work of attaching the seat firmly to the rail *b''*, the said rail may be made T-shaped in cross-section, as indicated at *c*, Fig. 5, and a bead or small rib *c'* may be made upon the outer side of the part *b* of the arch, either to add strength or stiffness thereto or for ornamentation, and the ends of the seat-rail may be connected to the arched part *b* by means of depending legs *d* and *d'*, and the latter, as shown, may extend to and unite with the forward extension *b'*, as is clearly indicated in Fig. 2; but these are minor or subordinate details of construction not absolutely essential to the principal features of our invention. For the purpose of ornamentation or "finish" we may cover the forward extension *d'* with a rib or bead of wood *e* and extend the same to, or nearly to, the dashboard, as shown in Fig. 1. The wooden parts or frame of the body may be connected to the iron arch F by means of bolts and nuts, screws, or other suitable well-known fastenings. The seat may be likewise connected thereto and the wooden parts joined to each other, as may be deemed best.

It will be perceived from the foregoing description and from reference to the drawings that the iron arches constitute the means for supporting the seat and for connecting the forward and rear portions of the body, and that no other connections interfering with the purpose of the arch need be employed.

In Fig. 3 we have shown the rear extension *b'* as overlapping the rear side bar or sill *a* on the outside of the latter, while in Fig. 4 the said extension is represented as bent or offset, as at *e'*, to permit the sill to lap the outside of the said extension.

When the arched irons F F are employed as and for the purposes now set forth, the body side pieces and seat-supports, which have heretofore been made of wood and either bent or sawed to form the arch for vehicles of the class referred to, may be omitted, the front

and rear bars *a a*, herein shown terminating at or near the lower corners or ends of the metallic arches, being, in combination with the latter, sufficient to constitute the
5 main frame of an arched body.

We are aware that metallic plates, bars, or rods and irons have heretofore been employed in various ways for bracing, strengthening, and connecting the parts of wooden frames
10 for arched vehicle-bodies, and we do not, therefore, here intend to claim the same, broadly; but,

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—
15

1. In an arched vehicle-body, a pair of arched metallic side pieces having sill-lapping extensions and seat-supports, in combination with body side bars or sills terminating at or
20 near the lower ends or corners of the said side pieces, substantially as and for the purposes specified.

2. The combination, in an arched vehicle-body, of the arched metallic side pieces *F F*,
25 having front and rear sill-lapping extensions *b' b'* and seat-supports, the said metallic parts having their sides or faces arranged vertically, and wooden body side bars or sills terminating at or near the lower ends or cor-

ners of the said metallic arches, substantially
as and for the purposes specified. 30

3. The combination, in an arched vehicle-body, of the arched metallic side pieces *F F*, having a T-shaped seat-supporting rail or bar at or near its top or apex, and also having
35 sill-lapping extensions *b' b'* projecting forwardly and rearwardly from the lower ends or corners of the said metallic arches, respectively, and the body side bars or sills terminating at or near the said corners, substan-
40 tially as and for the purposes specified.

4. The combination, in an arched vehicle-body, of the arched metallic side pieces *F F*, having thereon a seat-supporting rail *b''*, with depending arms *d* and *d'*, uniting the said side
45 pieces, and the latter also having the sill-lapping extensions *b' b'*, and the body side bars or sills terminating at or near the lower corners of the said arches, substantially as and
50 for the purposes specified.

Signed at Waterloo, in the county of Seneca and State of New York, this 8th day of July,
A. D. 1889.

WILLIAM N. MORRELL.
CHARLES A. EDDY.

Witnesses:

E. B. FORCE,
O. F. REYNOLDS.