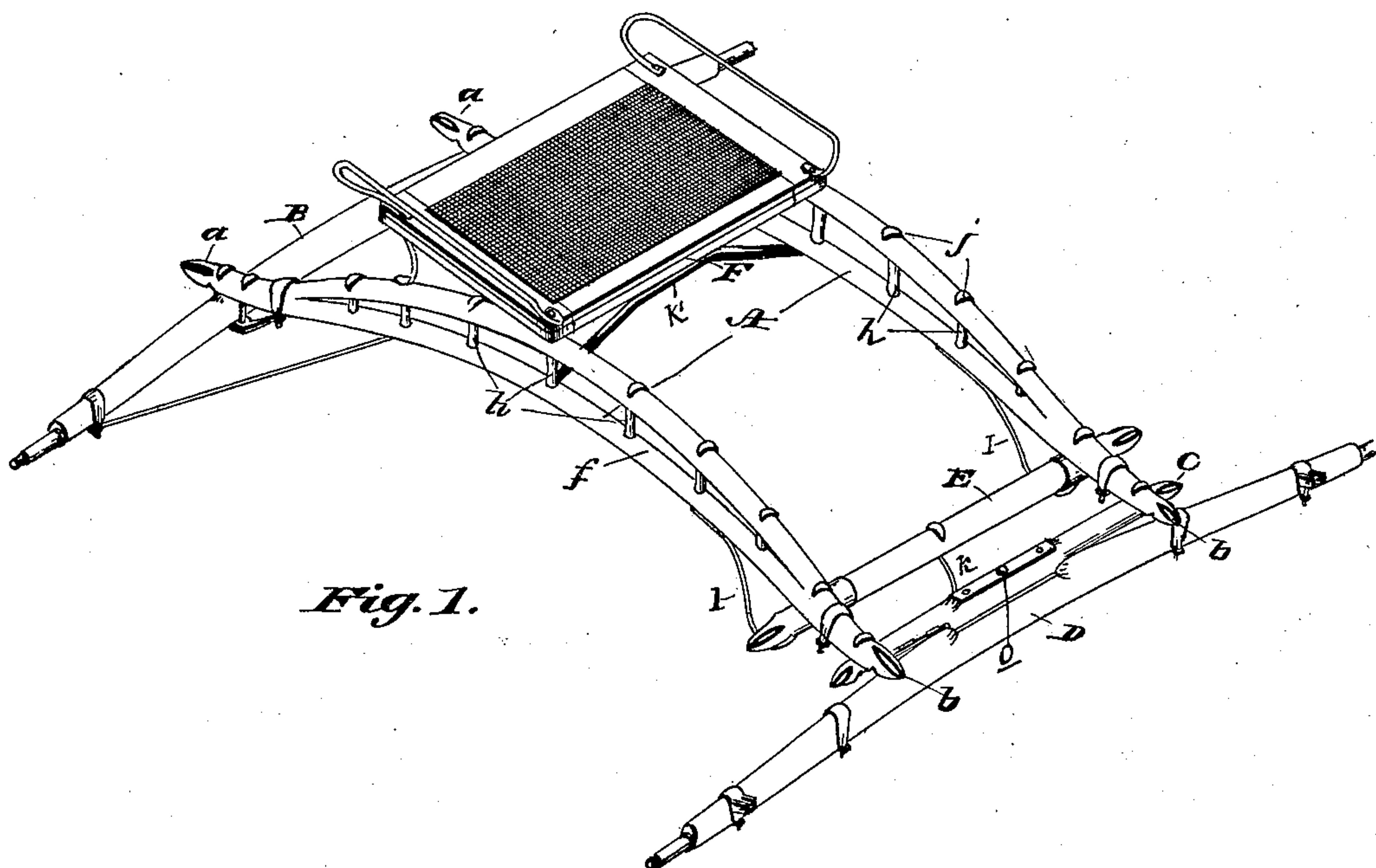


(No Model.)

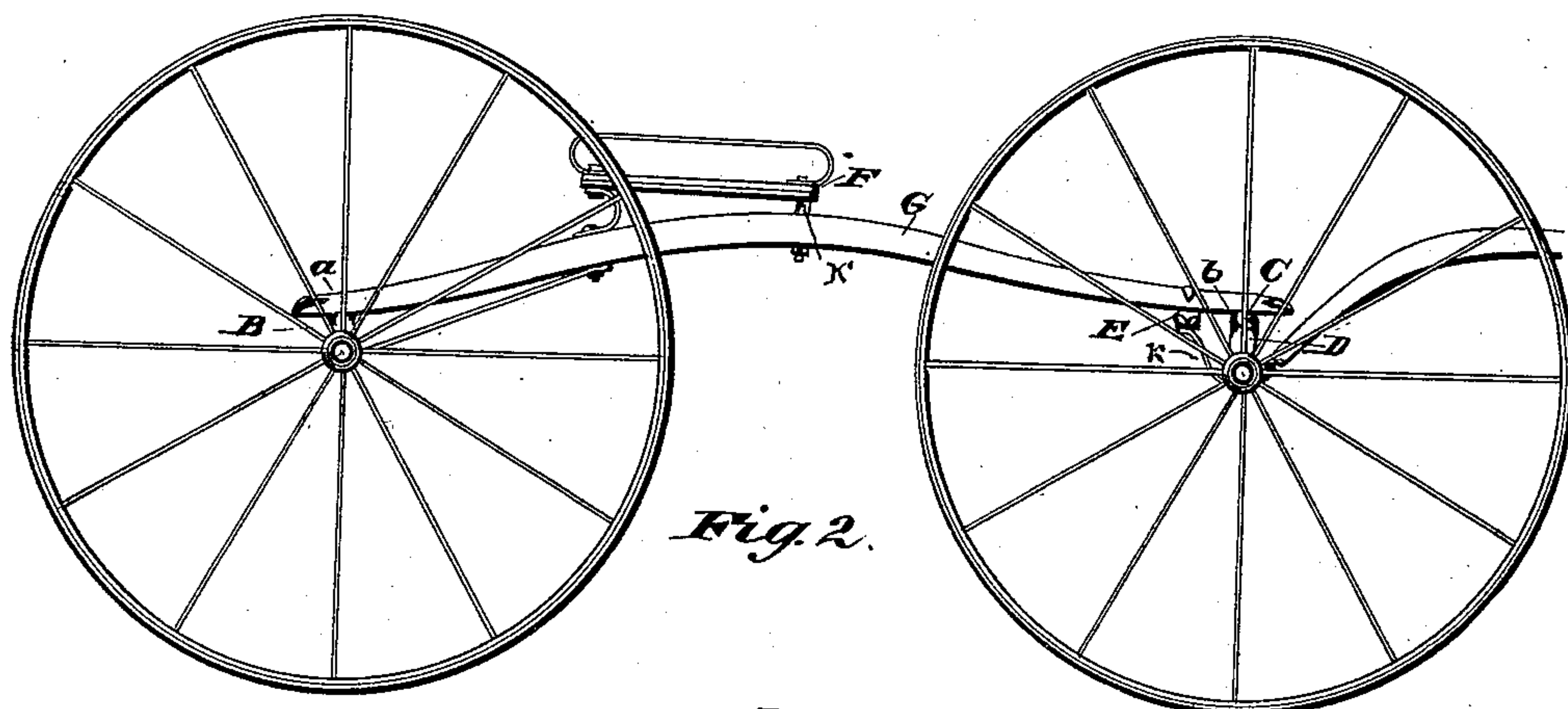
S. TOOMEY.  
SKELETON WAGON.

No. 407,380.

Patented July 23, 1889.



*Fig. 1.*



*Fig. 2.*



*Fig. 3.*

Witnesses

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*Fig. 1.*



# UNITED STATES PATENT OFFICE.

SAMUEL TOOMEY, OF CANAL DOVER, OHIO.

## SKELETON WAGON.

SPECIFICATION forming part of Letters Patent No. 407,380, dated July 23, 1889.

Application filed February 20, 1889. Serial No. 300,631. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL TOOMEY, a citizen of the United States, and a resident of Canal Dover, county of Tuscarawas, State of Ohio, have invented a new and useful Improvement in Skeleton Wagons, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification.

My invention relates to improvements in vehicle-bodies, and more especially to that class of vehicles designated "skeleton wagons" for speeding horses, the object of which is to produce a wagon that is light, strong, and rigid.

With these ends in view, my invention consists in certain features of construction and combination of parts, as are hereinafter described, and set forth in the claims.

Figure 1 of the accompanying drawings is a view in perspective of a wagon-body illustrating one method of applying my invention. Fig. 2 is a side elevation of a modified construction of arched body-bar. Fig. 3 is a similar view showing an arched body-bar having a wide central portion and fluted sides. Fig. 4 is a cross-section of the middle portion of bar shown in Fig. 3.

As hereinbefore stated, one of the objects sought is lightness, and to that end it will be noticed that the usual reach or perch connecting the rear axle with the head-block, which is pivotally secured to the front axle by the use of a king-bolt, is omitted, and in place thereof is provided an arched body and seat-support A, by which the rear axle B is secured to a bolster, as C, which is pivotally secured to the front axle D.

In Fig. 1 is shown a body and seat-support composed of trussed arched bars A, placed side by side in vertical plane. The rear ends *a* of each of the arched bars are secured to the rear axle B, and the front ends *b* to the end portions *d* of the bolster.

The bars A are composed of arched bars, as *f g*, of different curvature, and are placed vertically one above the other, the radius of the upper one *g* being shorter than *f*, that the space between the two bars at their middle portion may be greater than their end portions. The ends of the bars *g* are secured to the end of the bars *f* by a clip or bolts, as may

be preferred. To further stiffen the truss formed by the bars *f g*, thimbles *h* of suitable length are placed at desired intervals, as shown in the drawings, and bolts, as *j*, passed through them, by which the bars are secured together.

Near the front portion of the body A there is provided a cross-bar E, the ends of which are secured to the arched body-bars, the object of which is to form a foot-support for the driver and a brace to the front end of the body. A metal brace *k* is secured to the middle portion of the bar E, the lower front end of which is pivotally secured about the lower portion of the king-bolt *o*.

The object sought and successfully reached in the construction will be apparent and appreciated by any and all persons familiar with the use of such vehicles.

The body is arched for a twofold purpose, first, to allow a portion of the front wheel to pass under the body to permit of a shorter cramp for the purpose of making a short turn to avoid danger frequently arising under the circumstances where such vehicles are most in use, and for the further purpose of providing a perch at a suitable height for the driver's seat F, which is secured to the arched body-bars. To prevent a lateral movement of the top portion of the body, a brace, as *k'*, is provided, secured to the arched bar *f* and the seat substantially as shown in the drawings.

For the purposes of this case I have placed the arched bars side by side in vertical plane and parallel relation; but I would not be confined to that particular construction, as it may be desirable for some purposes to place the rear ends of the body-bars nearer to the ends of the axle, or to have the front ends nearer together, forming a body with sides diverging rearwardly from the bolster, and to further provide against lateral strain or movement the top portion of the arched bars may be slightly inclined toward each other and secured to the seat, thus forming a lateral truss-brace to the seat.

In Fig. 2 is shown an arched body-bar G, composed of a single piece of hickory, the arch portions being of natural growth. This form of arched bar is preferable for a body for a very light form of wagon, but the arch must necessarily be of natural growth to preserve



the form and to give the arched portion permanency of form and the necessary amount of strength and rigidity, as bent arches are not reliable, and those cut from plank are insufficient in strength.

The single arched pieces are placed and used in the construction of an arched body in the same manner as hereinbefore described in the use of the trussed arch by simply substituting the arched bar G shown in Fig. 2 for trussed bar A shown in Fig. 1.

In Fig. 3 is shown another form of arched body-bar H, formed of a single piece of strong hard wood wider at its middle portion and tapering toward its end portions, and having its vertical side portions removed or fluted out, leaving the upper and lower portions wider than the middle portions, as shown in cross-section in Fig. 4. This form of arched bar H may be used in the construction of the body first described by simply substituting the bar G for the trussed bar A, and otherwise treated as the trussed bar.

Having fully described the nature and object of my invention, what I claim, and desire to secure by Letters Patent, is—

1. In combination, the front and rear axle, a bolster, a king-bolt for pivoting the bolster to the front axle, arched body-bars placed side by side and secured at their rear ends to the rear axle and at their forward ends to the bolster, a cross-bar E, uniting the forward ends of said arched bars, a brace *k*, secured to the middle portion of the cross-bar E and to the king-bolt, a seat, and a brace *k'*, secured with its intermediate portion to said seat and with its ends to the arched body-bars, substantially as set forth.

2. An arched body-bar having its opposite vertical sides recessed longitudinally, forming a reduced thickness of material connecting the portions of material above and below it, substantially as set forth.

In testimony whereof I have hereunto set my hand this 2d day of February, A. D. 1889.

SAMUEL TOOMEY.

Witnesses:

JOHN KERCH,  
JOSEPH H. HOSTETLER.