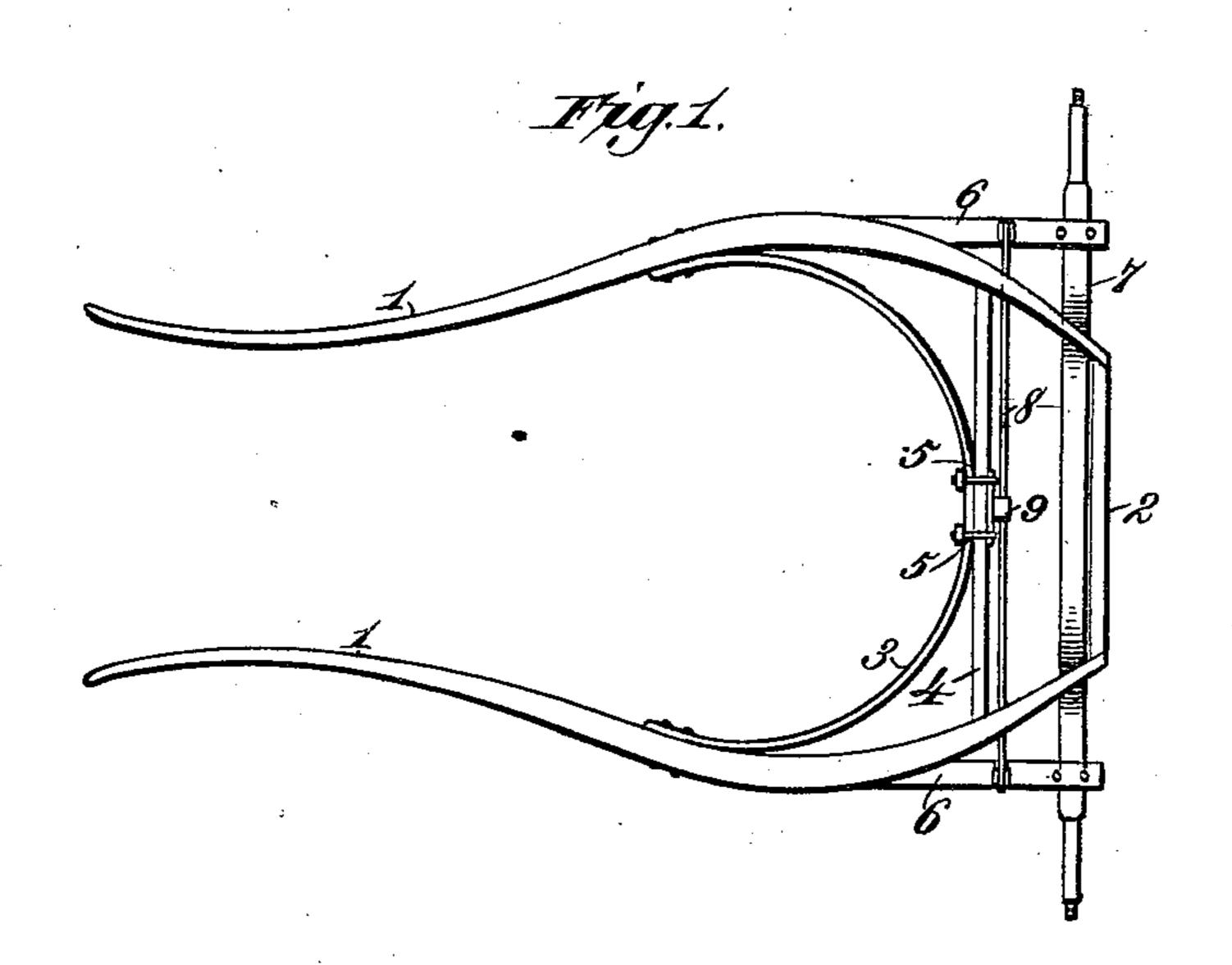
(No Model.)

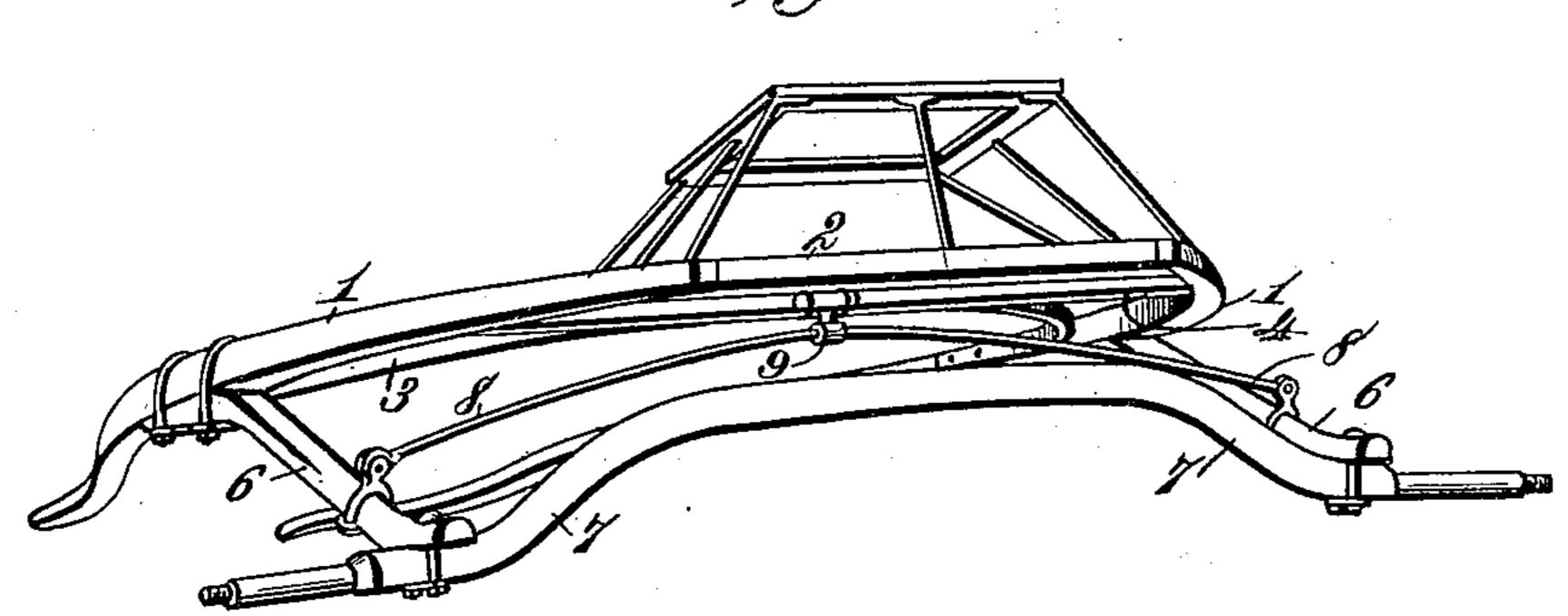
J. V. UPINGTON. SULKY.

No. 471,916.

Patented Mar. 29, 1892.







Witnesses. Mont Except.

United States Patent Office.

JOHN V. UPINGTON, OF LEXINGTON, KENTUCKY.

SPECIFICATION forming part of Letters Patent No. 471,916, dated March 29, 1892.

Application filed November 3, 1891. Serial No. 410,745. (No model.)

To all whom it may concern:

Be it known that I, John V. Upington, a citizen of the United States, residing at Lexington, in the county of Fayette and State of 5 Kentucky, have invented new and useful Improvements in Sulkies, of which the following

is a specification.

This invention relates to that class of sulkies in which the shafts and axle are attached to to parallel wood springs arranged on opposite sides of the vehicle; and the object of the invention is to provide a simple and effective means of throwing all the weight of the load on said springs, and thus keep the shafts in 15 proper position and shape and prevent them from bending down and tilting the seat backward, which is an annoying incident to the construction of some sulkies of this general character.

To this end my invention consists in the combination, with the springs and sulky-body, of a connecting-brace adapted and arranged to transfer the weight of the load to said parallel springs, the said brace preferably having 25 its ends attached to the wood springs and its central portion engaged in a clip or socket located centrally on a supplemental cross-bar of the sulky-body; and the invention further consists in the construction and combination 30 of parts hereinafter described and claimed.

In the annexed drawings, illustrating the invention, Figure 1 is a view of a portion of a sulky embodying my invention, the wheels and seat-frame being omitted. Fig. 2 is a rear 35 perspective showing the preferable arrangement of the connecting-brace with relation to the sulky-body and its parallel wood springs. Fig. 3 illustrates a modification in the shape and arrangement of the connecting brace or 40 braces. Fig. 4 is a sectional detail view of an

anti-rattling packing.

As shown in the drawings, the numeral 1 designates the shafts, the rear ends of which are preferably curved inward toward each 45 other and form part of the sulky-body, which also comprises the back-bar 2, the circle-bar 3, and preferably an intermediate supplemental cross-bar 4, the ends of said bars being firmly secured to the shafts in any suit-50 able or well-known manner. The circle-bar 3 and cross-bar 4 are preferably connected by clips 5 at the center.

The shafts 1 are each securely bolted or otherwise secured to the forward end of one of the side springs 6, which are preferably 55 made of wood and arranged parallel to each other on opposite sides of the vehicle below the sulky-body. The rear ends of the parallel wood springs, 6 are bolted, clipped, or otherwise secured to the axle-bed 7, which 60 may be bent or bow-shaped, as shown.

The weight of the load is transferred to the springs 6 by means of a brace or braces 8 of any suitable form and construction adapted to afford adequate support to the sulky-body 65 and prevent backward tilting of the seat-frame, which may be attached above the sulky-body

in any convenient manner.

The connecting brace or braces 8 may be composed of wood or metal, or partly of each, 70 and can be made in any desired form, either bow-shaped, C shape, or S shape, as preferred.

As shown in Figs. 1 and 2, the ends of the brace 8 may be attached to the springs 6, either rigidly or preferably by means of 75 hinged connections, and the central upper portion of the said brace may be engaged in a socket, loop, or clip 9, secured to the center of the supplemental cross-bar 4 by any convenient means.

In Fig. 3 I have illustrated a modification in which the shafts 1 and parallel wood springs 6 are directly connected by braces 8 that may be either C-shaped or S-shaped, as desired. This arrangement of connecting-braces will 85 permit the supplemental cross-bar 4 to be dispensed with, though it may still be employed, if preferred.

It is obvious that the brace or braces 8 will afford such support to the rear end of the 90 sulky-frame as will result in preventing a backward tilt of the seat when the vehicle is in use, and by transferring the weight to the springs 6 will greatly add to the comfort, strength, and durability of the sulky.

The brace or braces 8 may be made of any suitable wood or metal, and may be rigid or elastic, as preferred.

When the parts are arranged as shown in Figs. 1 and 2, the clip or socket 9, connecting 100 the bar 4 and brace 8, may be provided with a rubber or composition packing 10, Fig. 4, to prevent rattling.

What I claim as my invention is—

1. In a sulky, the combination of the axle, the shafts having their rear ends curved inward and connected to form part of the sulky-frame, the parallel springs arranged on opposite sides beneath said frame and secured to the shafts and axle, and a brace connecting said springs with the sulky-frame, substantially as and for the purposes described.

2. In a sulky, the combination of the axle, a sulky-frame comprising the shafts and connecting cross-bars, the parallel springs arranged on opposite sides beneath said frame and secured to the shafts and axle, and a brace connection between said springs and sulky-frame, substantially as described.

3. In a sulky, the combination of the shafts 1, the axle 7, the parallel springs 6, secured to the shafts and axle beneath the sulky-body, the cross-bar 4, having a clip or socket 9, provided with an anti-rattling packing 10, and 20 the brace 8, supported in said clip or socket and connected with the parallel springs, substantially as shown and described.

In testimony whereof I have affixed my signature in presence of two witnesses.

JOHN V. UPINGTON.

Witnesses:
CHAS. H. MESTER,
W. G. WARREN.