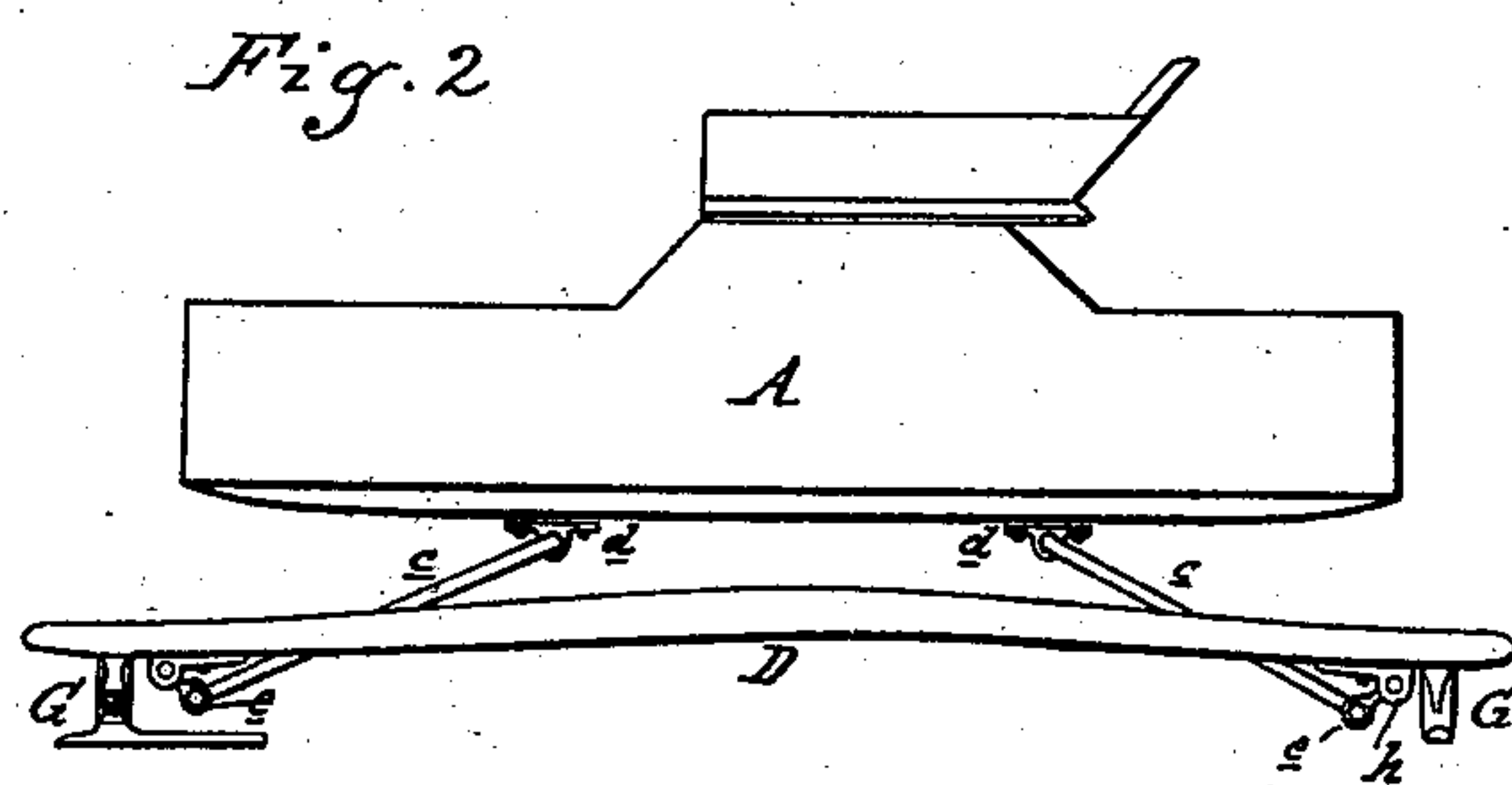
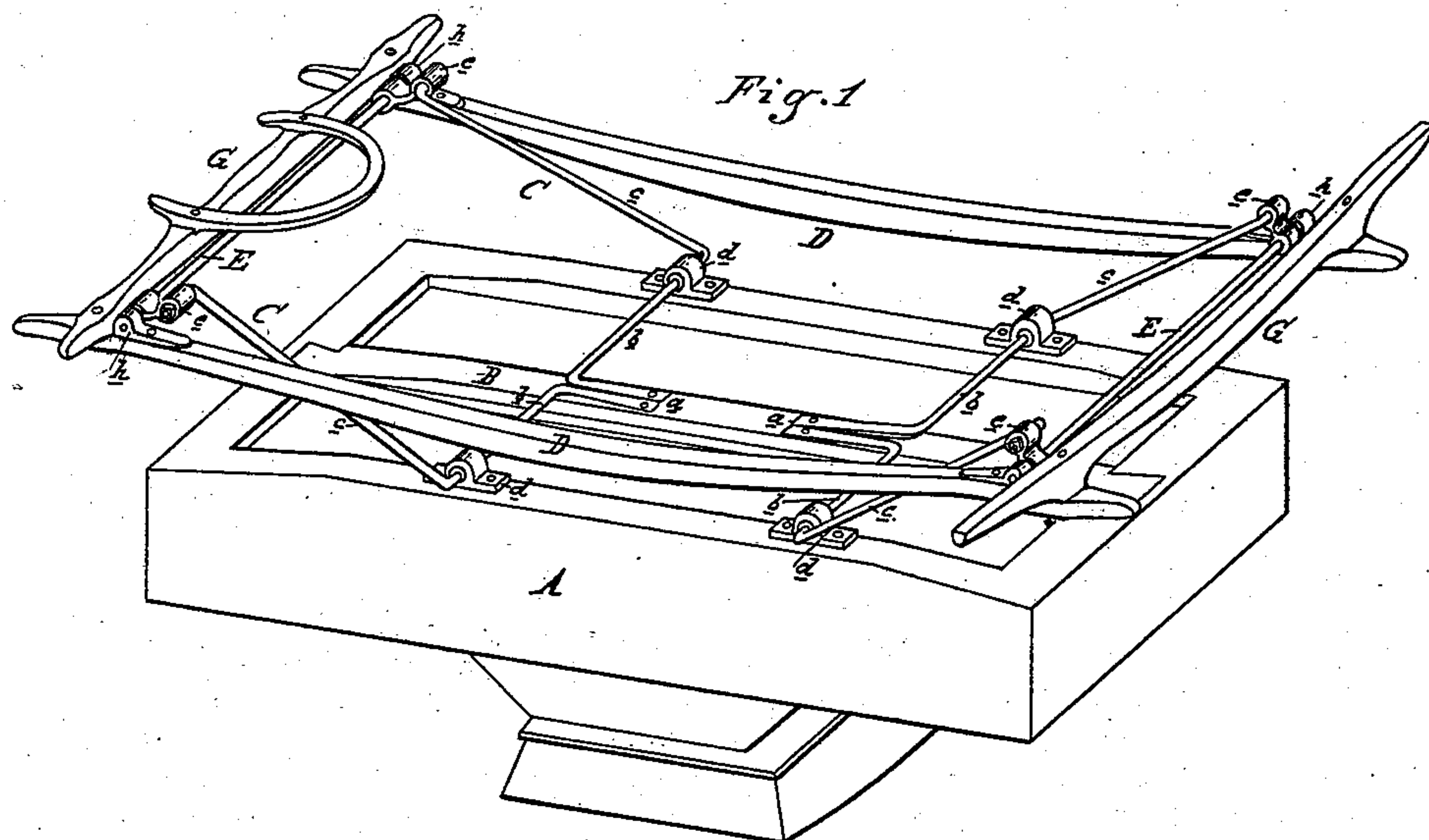


T. C. SEBRING.
Side Bar Wagon.

No. 230,350.

Patented July 20, 1880.



Attest:

A. Barthel
Charles J. Vank

Inventor:

T. C. Sebring
By atty
Thos. S. Sprague

UNITED STATES PATENT OFFICE.

THOMPSON C. SEBRING, OF MILFORD, MICHIGAN, ASSIGNOR TO PHIPPS,
LOWELL & CO., OF SAME PLACE.

SIDE-BAR WAGON.

SPECIFICATION forming part of Letters Patent No. 230,350, dated July 20, 1880.

Application filed March 4, 1879.

To all whom it may concern:

Be it known that I, THOMPSON C. SEBRING, of Milford, in the county of Oakland and State of Michigan, have invented an Improvement in Side-Bar Wagons; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, forming a part of this specification, and in which—

Figure 1 is a perspective view taken from the bottom. Fig. 2 is a side elevation.

Like letters refer to like parts in each figure.

The nature of my invention relates to new and useful improvements in the construction of that class of vehicles usually denominated "side-bar wagons;" and the invention consists in the peculiar construction and combination of the various parts, as shown in the drawings, and more fully hereinafter described.

In the drawings, A represents the body, provided with a central longitudinal bar, B, mortised or dovetailed into the ends of the bottom frame.

C represents the torsional springs by means of which the body and side bars, D, are secured together. These springs are made of steel rods of any desired size, and in the form shown, flattened at one end, as at *a*, bent at right angles to form the torsional part *b* of the spring, and then again bent at right angles to form the lever *c*, so that the parts *a c* are on the same parallel vertical plane, and horizontally varying about twenty degrees, thus enabling me to make the lever *c* much longer

than it is ordinarily made, and by means of such additional length to obtain the proper height of the body.

The part *a* is rigidly secured longitudinally to the center bar, B, and the part *b* to the sides of the frame of the body A, by means of the box *d*, and the part *c*, at its outer end, is bent at right angles to itself and pivotally secured to the arm *e*, which is rigidly secured to the rock-shaft E, which, in turn, is secured at each end in boxes *h* to the side bars, D, which rest upon and are rigidly fastened to the bolsters or bars G. There are four of these springs and two rock-shafts, arranged as shown in Fig. 1.

I am aware that there are various constructions and arrangements of torsional springs for vehicles, and I therefore do not broadly claim such springs; but

What I claim as my invention is—

In a side-bar wagon, the combination, with the body A, side bars, D, and bolsters G, of the four torsional springs C, secured at their ends *a* to the center bar, B, of the body, near the longitudinal center of such bar, then passing through boxes *d* on the side frame of the body, and then bent outwardly toward the bolsters, where their outer ends are attached to the side bars, D, by the rock-shafts E, boxes *h*, and arms *e*, all constructed and arranged substantially as described and shown.

THOMPSON C. SEBRING.

Witnesses:

CHARLES J. HUNT,
H. S. SPRAGUE.