

(No Model.)

E. H. CARPENTER.
SIDE SPRING VEHICLE.

No. 452,990.

Patented May 26, 1891.

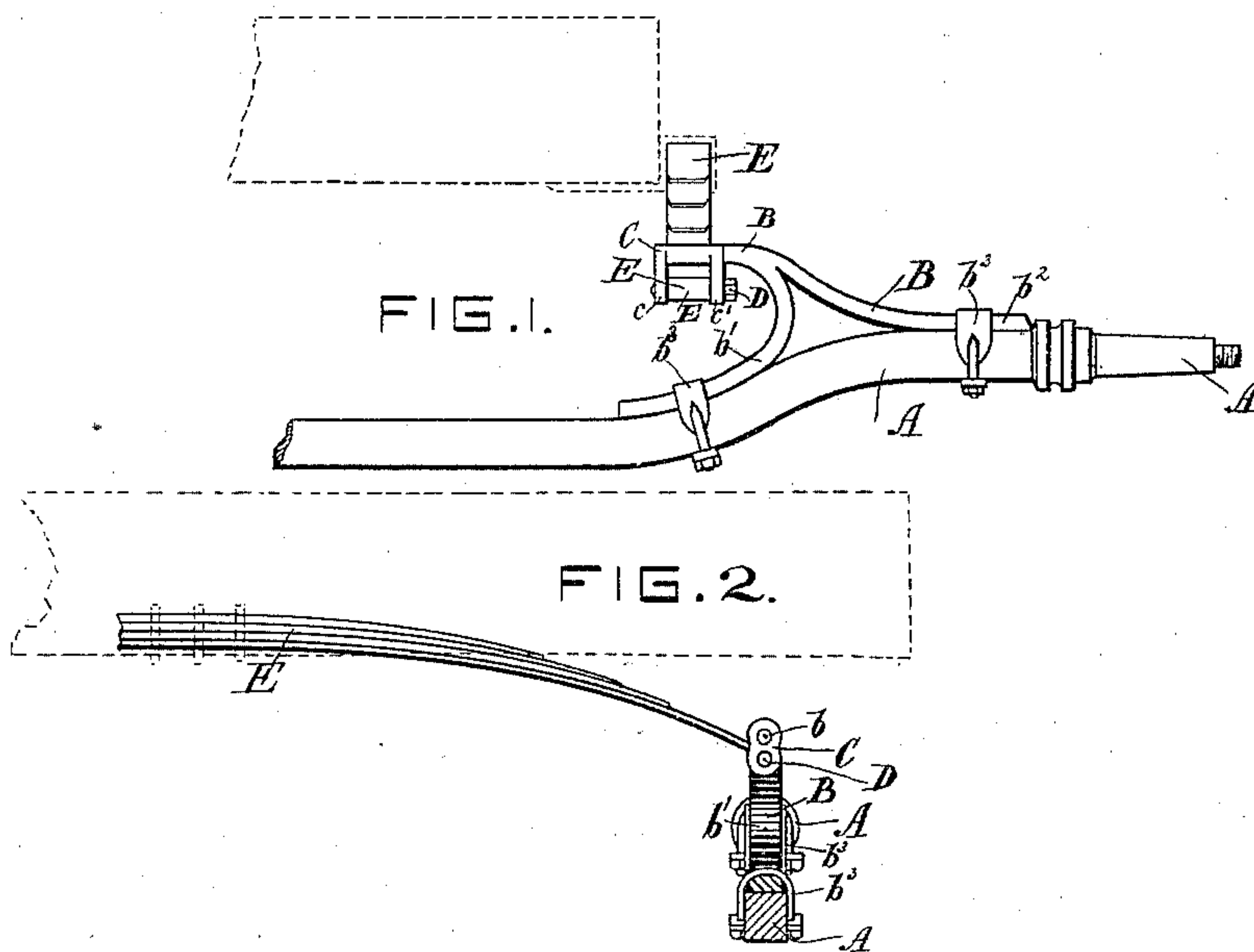
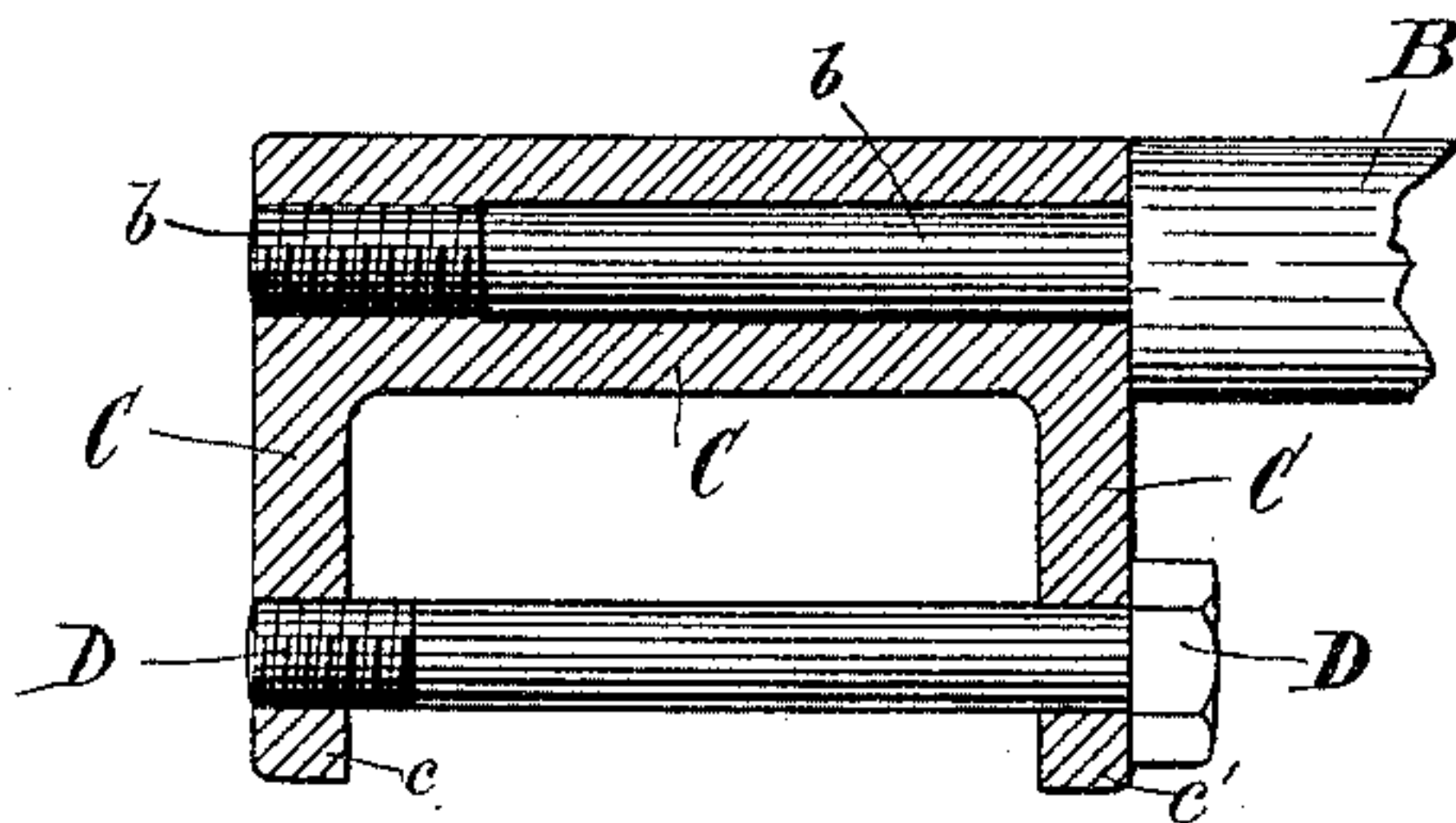


FIG. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

EDMUND H. CARPENTER, OF JACKSON, MICHIGAN.

SIDE-SPRING VEHICLE.

SPECIFICATION forming part of Letters Patent No. 452,990, dated May 26, 1891.

Application filed December 1, 1890. Serial No. 373,160. (No model.)

To all whom it may concern:

Be it known that I, EDMUND H. CARPENTER, a citizen of the United States, and a resident of Jackson, in the county of Jackson and State of Michigan, have invented certain new and useful Improvements in Side-Spring Vehicles, of which the following is a specification.

My invention relates to side-spring vehicles, particularly to that class known as "Concord wagons."

Its object is an improved means for coupling the springs to the rear axle, whereby a long body extending over the rear axle may be used and hung low without being liable to strike the axle when depressed.

The invention consists in providing peculiar hangers to be clipped upon each end of a downwardly-bent axle, the hanger being provided with a swinging spring-shackle, all of which will be first fully described in connection with the accompanying drawings, and then particularly referred to and pointed out in the claims.

Referring to the drawings, in which like parts are indicated by similar reference-letters wherever they occur throughout the various views, Figure 1 is a rear elevation of part of a rear axle provided with my improvements. Fig. 2 is a side elevation of the same. In both of these views the position of the body is shown in dotted lines. Fig. 3 is a detail view, in central vertical section and upon a greatly-enlarged scale, of the spring-shackle. The shackle-bolt and wrist of the hanger are shown in elevation.

The rear axle A is curved downwardly near each end to allow the body to project over it and play up and down above the central depressed portion. Upon top of the axle, near each end, are clipped the bracket-hangers B. Each of these consists of the wrist-pins b,

which are preferably screw-threaded to engage internal threads tapped in the barrel of the spring-shackle C, and the two diverging curved arms b' b^2 . The one b' curves underneath the wrist to rest in the curved bend of the axle, and the other one b^2 curves outwardly and downwardly to rest upon its straight outer ends. The brackets are secured to the axle by clips b^3 . The ears cc' of the shackle C are perforated to receive the bolt D, which passes through the perforations and the eye of the spring E. The end of the bolt is screw-threaded and the perforation in the ear c tapped to engage the thread to retain the bolt in place. Thus there are no projections to interfere with the body in its movement. The springs E are what are known as the "Concord side springs." The body is secured centrally upon them, and the front ends of the springs are clipped upon the head-block in the usual manner.

What I claim is—

1. In a side-spring vehicle, the combination, substantially as hereinbefore set forth, of the downwardly-bent rear axle, the upwardly-projecting hangers B, having screw-threaded wrist-pins b and diverging arms b' b^2 , the shackle having threaded barrel, the side springs E, pivoted in said shackle, and the wagon-body hung between said springs and projecting over the rear axle.

2. The shackle C, having threaded barrel, the bracket B, having screw-threaded wrist-pin b and diverging arms b' b^2 , and the coupling-bolt D, combined and arranged substantially as hereinbefore set forth.

EDMUND H. CARPENTER.

Witnesses:

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