

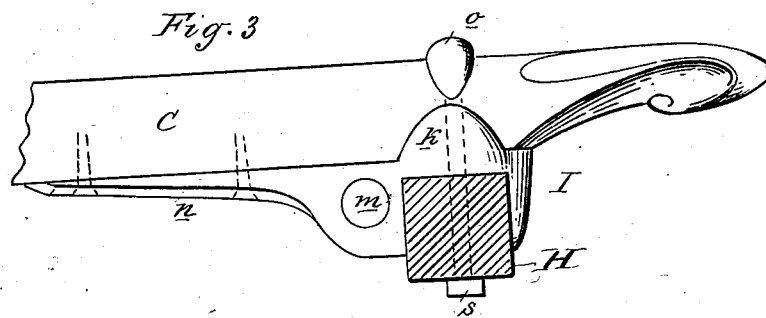
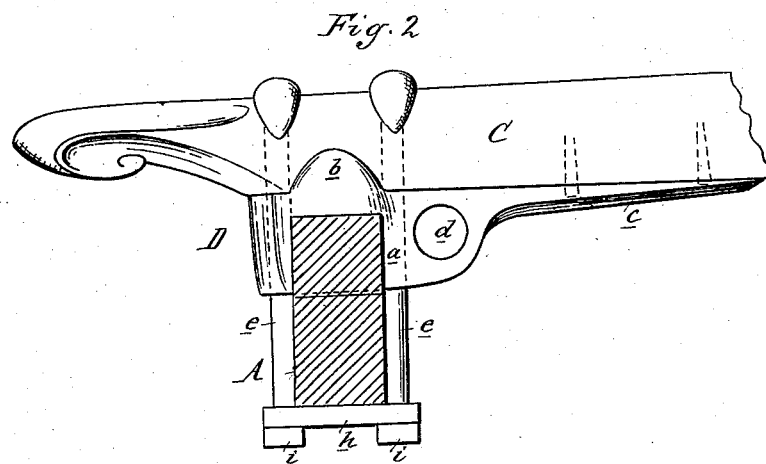
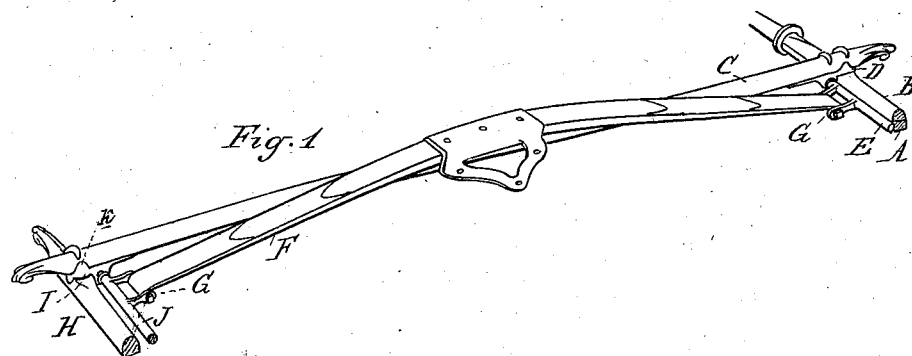
(No Model.)

F. A. SCOFIELD & J. A. COOPER.

SIDE BAR WAGON.

No. 261,391.

Patented July 18, 1882.



*Attest:*  
*A. Barthel*  
*C. Scully*

*Inventors:*  
*Frank A. Scofield & James A. Cooper*  
*per Thos S. Sprague*  
*Att'y*

# UNITED STATES PATENT OFFICE.

FRANK A. SCOFIELD AND JAMES A. COOPER, OF OVID, MICHIGAN.

## SIDE-BAR WAGON.

SPECIFICATION forming part of Letters Patent No. 261,391, dated July 18, 1882.

Application filed January 26, 1882. (No model.)

*To all whom it may concern:*

Be it known that we, FRANK A. SCOFIELD and JAMES A. COOPER, of Ovid, in the county of Clinton and State of Michigan, have invented new and useful Improvements in Combined Side-Bar and Side-Spring Wagons; and we hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

The nature of this invention relates to certain new and useful improvements in the construction of that class of wagons known as "side-bar wagons," in which side springs are also employed.

It has been usual in wagons of this class to attach the ends of the side springs by clips to the rear axle and the bolster or head-block over the front axle or to equalizers attached to the same parts, so that in the operation of the springs in their vertical rise and fall, and consequent lengthening and shortening, the parts to which they were attached would have a tendency to roll, which is very objectionable; or such springs have been attached by proper clips and bearings to the side bars themselves, so that in the action of the springs they produce a torsional strain upon said side bars.

It is the object of this invention to avoid these difficulties, and to attach the springs and the side bars in such a manner that torsional strain of the side bars is avoided, as well as the rolling of the axles under the action of the spring.

Figure 1 is a sectional perspective, showing a portion of the rear axle, the head-block, and a side bar and side springs combining our improvements. Fig. 2 is an elevation of the side bar, showing the clip which secures said side bar to the rear axle and containing the bearing for one end of the equalizer. Fig. 3 is a similar view, showing the construction of the clip by means of which the front end of the side bar is secured to the head-block, such clip forming the bearing for one end of the equalizer-bar.

In the accompanying drawings, A represents the rear axle, of iron or steel. Superimposed upon such axle is the wooden plate B, resting upon the top of which is the side bar, C, and these parts are secured together by means of the clip D, which we will now describe. This clip is provided with a recess, *a*, to embrace the wooden plate on top of the rear axle, and

with two ears, *b*, projecting upward on opposite sides, thereby forming a recess between the two ears at right angles to the recess A to embrace the side bar. In rear of the recess *a* the wall is extended, as shown in Fig. 2, upon curved lines and terminates in a strap, *c*. Immediately in rear of the recess *a* there is drilled, cast, or otherwise provided a round hole, *d*, to receive one of the equalizer-bars E, to which the spring F is secured by the swinging joint G, constructed in the usual way. Bolts *e* are inserted through the side bar and through the walls of the recess *a* of the clip on each side of the rear axle, and are secured in place by the plate *h* and nuts *i*. The side bar, C, at its forward end, is secured to the bolster or head-block H by means of the clip I, which is constructed with a recess to embrace the head-block, similar to the recess described in the head-block D, to embrace the rear axle. It is also provided with a similar recess, formed at right angles to the first-named recess, by means of the lips *k*, to embrace the sides of the head-block, and as described in the description of the clip D. The rear wall of the recess, which embraces the head-block, is provided with the hole *m* to receive the end of the equalizer J, to which the front end of the spring is pivotally secured, and this clip extends to the rearward, forming a strap, *n*, the straps *c* and *n* being secured by suitable bolts or screws to the under side of the side bar. A bolt, *o*, passes down through the side bar, the clip, and the head-block centrally, and is secured by the nut *s*.

In Fig. 1 but one side of the gear is shown, but necessarily the other side is completed and secured together in the same way by similar clips to bearings for the other ends of the equalizers.

What we claim as our invention is—

The combination of the clip D, having ear *b*, as a bearing for the side bar upon side, and a recess, *a*, as shown, the rear axle, A B, partly received in said recess *a*, the equalizer E, spring F, having loose joint G, the side bar, C, plate *h*, and hooks *e*, securing the side bar, axle, and clips firmly together, and giving a firm bearing upon the side bar opposite the ear *b*, all as and for the purposes specified.

FRANK A. SCOFIELD.  
JAMES A. COOPER.

Witnesses:

C. M. HAGADON,  
D. E. LEONARD.