(No Model.)

W. F. HOPKINS.

CARRIAGE STEP.

No. 605,428. Patented June 7, 1898.

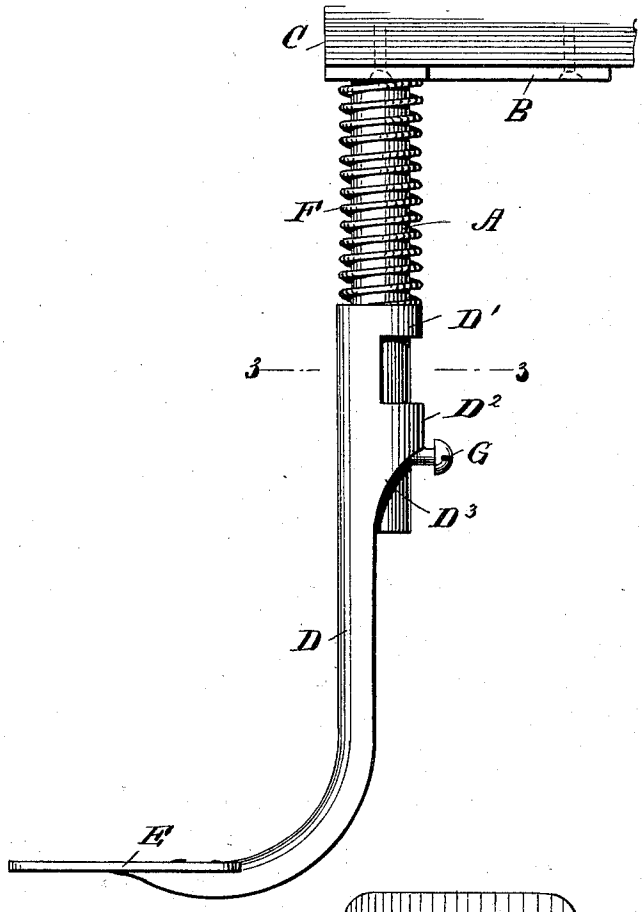


Fig. 1

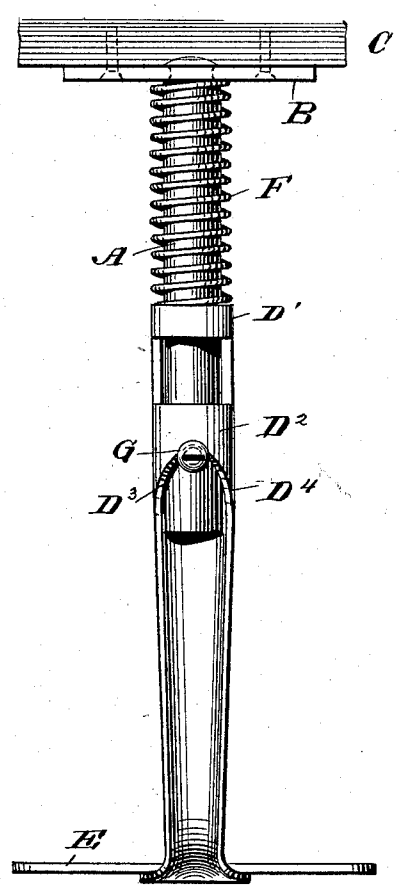


Fig. 2

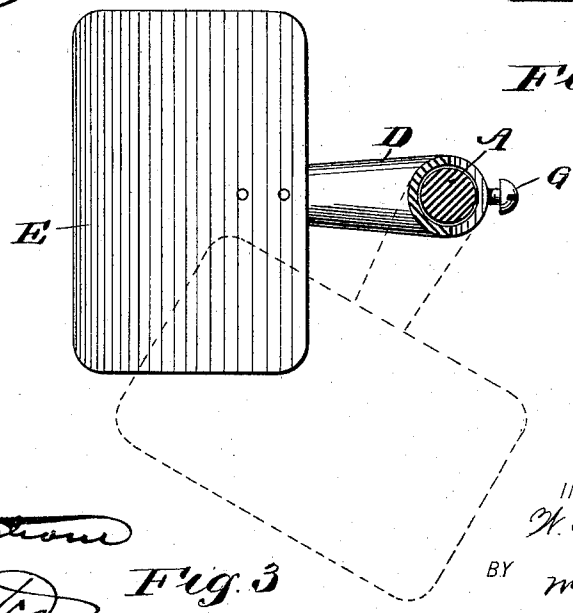


Fig. 3

WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM F. HOPKINS, OF CARUTHERSVILLE, MISSOURI.

CARRIAGE-STEP.

SPECIFICATION forming part of Letters Patent No. 605,428, dated June 7, 1898.

Application filed September 21, 1897. Serial No. 652,449. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. HOPKINS, of Caruthersville, in the county of Pemiscot and State of Missouri, have invented a new and Improved Carriage-Step, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved carriage-step arranged to readily turn to one side or move upward when coming in contact with or passing over a stump or other obstruction in the path of the vehicle on which the step is used.

The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter and then pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the improvement. Fig. 2 is a rear elevation of the same, and Fig. 3 is a sectional plan view of the same on the line 3 3 of Fig. 1.

A rod A, provided at its upper end with a bracket B, is attached to the under side of the vehicle-body C, on which the step is to be used. The rod A is engaged at its lower end by bearings D′ D^2, formed on a shank D, supporting at its lower and forwardly-curved end the usual foot-piece E. The upper bearing D′ is pressed on by a spring F, coiled on the rod A and abutting with its upper end against the bracket B, as is plainly shown in the drawings, so as to hold the shank D and its foot-piece E in a normal position, as indicated in full lines in Figs. 1, 2, and 3.

The rear side edges of the shank D converge and meet directly at the rear of the shank and at the point where the shank joins the lower bearing D^2, and thus form the lower edge of the bearing D^2 with two cam-surfaces D^3 D^4. A screw G or other projection extending laterally from the rod A near its lower end forms a rest for the shank when brought into engagement with the meeting-joint of the two cam-surfaces by the tension of the spring.

Now it will be seen that when the foot-piece E comes in contact with an obstruction in the path of the vehicle then the foot-piece, with its shank D, is caused to swing in either direction, the parts turning with the bearings D′ D^2 on the lower end of the rod A, so that the foot-piece E readily swings to one side and passes the obstruction. When the foot-piece E and shank D swing as above described, then the corresponding cam-surface D^3 or D^4 rides up on the screw G against the tension of the spring F. When the foot-piece has passed the obstruction, the force of the spring moves the shank downward, and in doing so the cam-surface again travels on the screw G to return the foot-piece E to its forward normal position. It will also be seen that by the use of the device the foot-piece readily travels over an obstruction, as its shank is free to slide vertically on the rod A, and it is returned to its normal position after the obstruction is passed by the action of the spring F.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

A carriage-step comprising a fixed rod having a lateral projection, a shank formed with two downwardly-inclined cam-surfaces approaching each other at their adjacent ends, said shank being mounted to slide and turn on said rod with the cam-surfaces above said projection and in engagement therewith, whereby said shank will be rotated simultaneously with longitudinal movement, a foot-piece attached to said shank and a spring on said rod and engaging said shank to press the same against the projection, as and for the purpose set forth.

WILLIAM F. HOPKINS.

Witnesses:
WM. A. WARD,
DAVID WELSH.