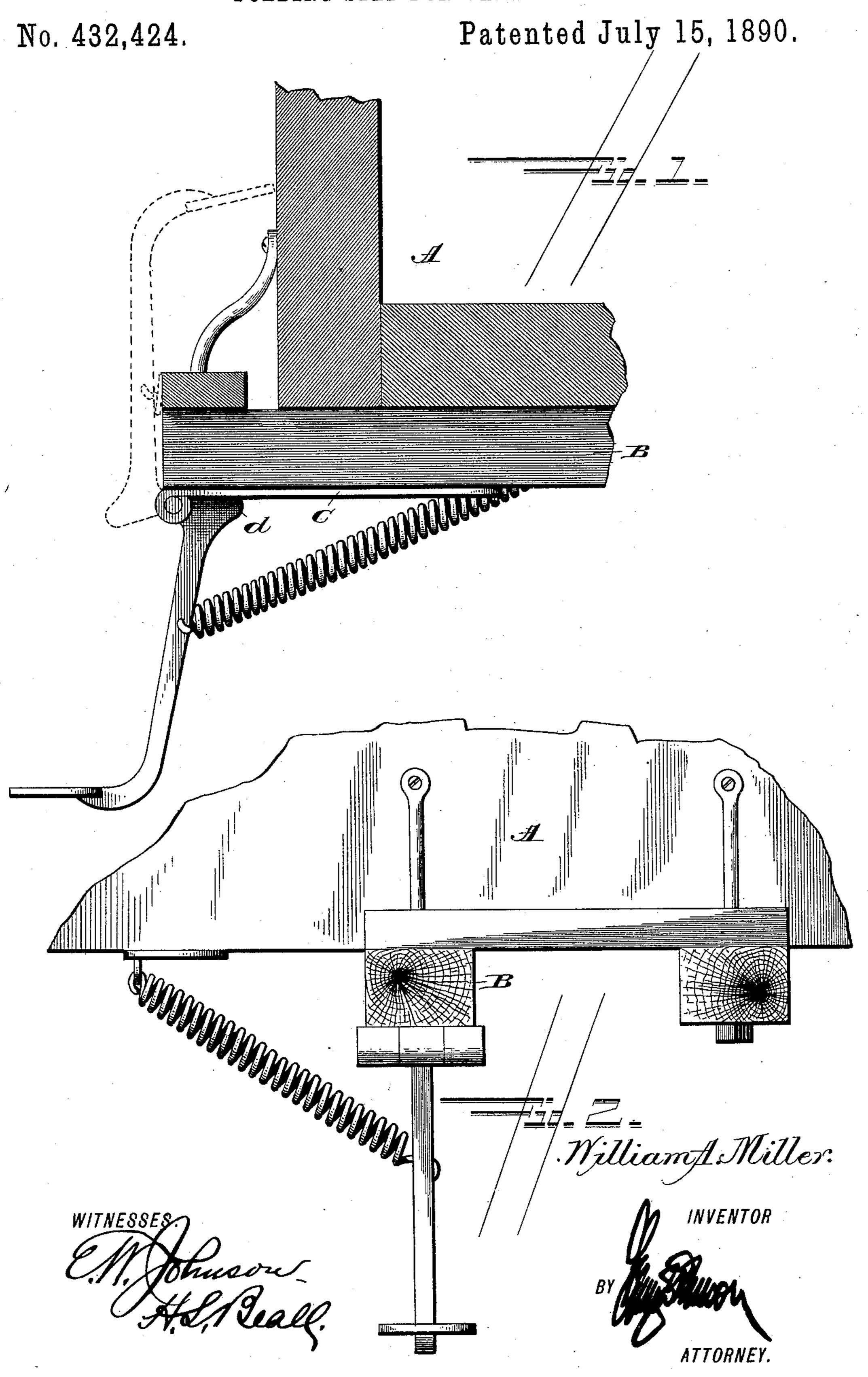
W. A. MILLER.
FOLDING STEP FOR VEHICLES.



## United States Patent Office.

WILLIAM A. MILLER, OF SPRINGDALE, ARKANSAS.

## FOLDING STEP FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 432,424, dated July 15, 1890.

Application filed May 22, 1890. Serial No. 352,746. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. MILLER, a citizen of the United States of America, residing at Springdale, in the county of Washington 5 and State of Arkansas, have invented certain newandusefulImprovements in Folding Steps for Vehicles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others ro skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in steps for vehicles; and it has for its object to provide a step of simple construction which when not desired for use may be folded up out of the way ad-20 jacent to the wagon-body, and will be held either in a raised or lowered position by a spring; and it consists in the construction and combination of the parts, as will be hereinafterfully set forth, and particularly pointed

25 out in the claims.

In the accompanying drawings, Fig. 1 is an end view of the body of a vehicle, partly in section, showing the step lowered in full lines and raised in dotted lines. Fig. 2 is a side 30 view.

A refers to the frame-work or body of a vehicle of ordinary construction, and to one of the cross-bars B thereof is rigidly secured a plate C, the ends of which are bifurcated 35 and formed into eyes to retain a pintle which passes through an eye or opening formed in the upper end of the standard which carries the step. This standard rear of the eye formed therein has a lug or shoulder d, which 40 when the step is lowered abuts against the plate secured to the cross-bar B, and upon the lower end of the standard the step is formed or attached. The standard is provided at a suitable point between its eye and 45 the step with a perforation, which serves as

a means for connecting one end of a spiral spring thereto, while the opposite end of said spring is attached to the body of the vehicle beyond and to one side of the pintle. By this construction the spring, when the step 50 is lowered to the position shown in full lines, will exert a pressure to hold the step lowered and the shoulder on the upper part of the standard in contact with the plate. When the step is turned upward on its pivot, the 55 end of the spring being thrown above the pintle will hold the standard raised.

The construction herein shown and described is extremely cheap and is effective in operation, and when the standard is thrown 60 up it is not liable to come in contact with narrow gateways; also, the standard may be made much longer than those used with ordinary steps, as it need only be lowered when desired for use.

Having thus described my invention, I claim—

1. In a vehicle-step, the combination of a bifurcated and shouldered step-carrying standard pivotally attached to the wagon- 70 body, and a spring attached to the standard and vehicle, so that one end of the spring will be located either below or above the pivot as the step is lowered or raised, substantially as shown and for the purpose set forth.

2. In a step for vehicles, the combination of a bifurcated plate, a standard having an eye and shoulder formed on the end opposite the step, and a spiral spring connected to the standard to one side of its pivot at one end 80 and to the vehicle-body at the other, so as to exert a drawing pressure upon said standard, whether raised or lowered, for the purpose set forth.

In testimony whereof I affix my signature 85 in presence of two witnesses.

WILLIAM A. MILLER.

Witnesses:

A. M. KENNAN, A. J. HALE.