

(No Model.)

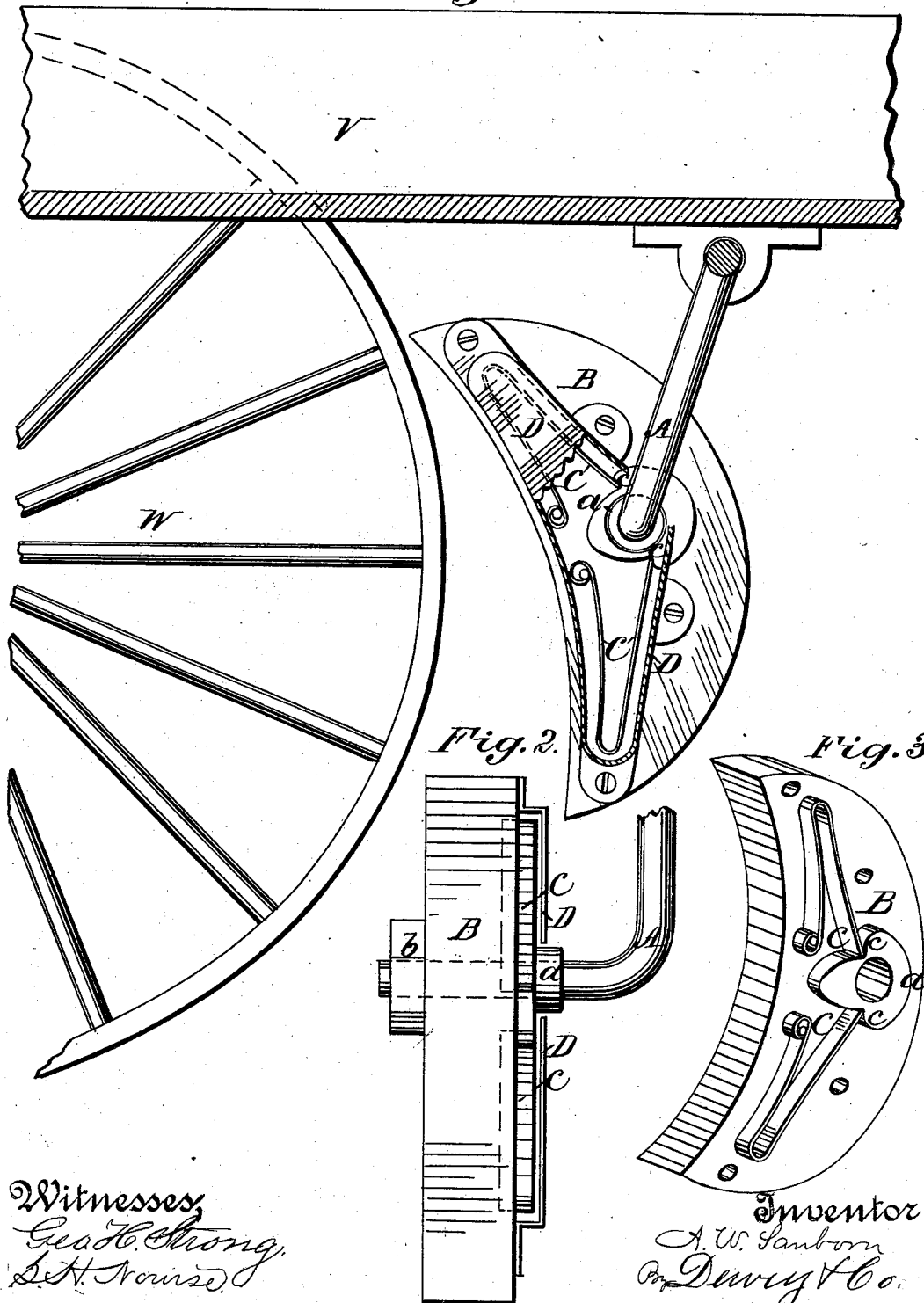
A. W. SANBORN.

BRAKE SHOE.

No. 264,569.

Patented Sept. 19, 1882.

Fig. 1.



Witnesses:
Geo. H. Strong,
S. H. Truitt.

Inventor
A. W. Sanborn
By Dwyer & Co.
Attorneys

UNITED STATES PATENT OFFICE.

ALDEN W. SANBORN, OF SAN FRANCISCO, CALIFORNIA.

BRAKE-SHOE.

SPECIFICATION forming part of Letters Patent No. 264,569, dated September 19, 1882.

Application filed June 29, 1882. (No model.)

To all whom it may concern:

Be it known that I, ALDEN W. SANBORN, of the city and county of San Francisco, in the State of California, have invented an Improved Self-Adjusting Brake-Block; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to brake-blocks loosely pivoted on the brake-bar and forced into position by springs; and it consists of certain details of construction and arrangement, as hereinafter fully described and specifically claimed.

The bar or shaft is journaled under the body, and its arms extend downwardly upon each side, or upon one side, and carry the brake-blocks in a vertical position and in line with the rear wheel or wheels. The blocks are usually arranged to impinge against the wheel at about the same height as its center or hub, and at this point they meet the tire of the wheel squarely and impinge over their entire face. The blocks are rigidly secured upon the rod, and are brought against the wheel by the rocking movement of said rod. Now, it is obvious that when the vehicle is loaded and the body is borne down the brake-blocks are lowered; but because of being rigidly secured upon the rod they do not vary their inclination, but remain vertical and in a position to fit squarely against the wheel only at one point. Therefore they cannot fit the wheel at a point lower down. When thrown back against the wheel the top of the block alone impinges, and the leather or other shoe upon its face becomes so much worn that new ones have to be continually supplied. The reverse of this is true when no weight at all is put upon the body. In that case the blocks are elevated, and when forced back against the wheel the lower portion impinges.

The object of my invention is to remedy this difficulty, and this I do by loosely fitting the block upon the rod and so affecting it by springs that in whatever position it may be, and no matter whether the top or bottom impinges first, it may yield sufficiently to square itself against the wheel and wholly fit its face against it.

Referring to the accompanying drawings, Figure 1 is an elevation of my block next to

the body of the truck or carriage. Fig. 2 is a side elevation next the wheel. Fig. 3 is a perspective of my block, showing the springs.

Let V represent a portion of the body of a vehicle, and W a rear wheel.

A represents the rod or shaft, which is journaled under the body and carries the brake-block.

B represents this block. It is fitted upon the rod loosely enough to turn thereon.

Upon the rod A, inside of the brake-block, is a collar or flange, *a*. The rod passes through the block and takes a nut, *b*, upon the outside, so that the block is held in place between the nut and collar. The collar *a* is provided with two shoulders, *c*, as shown.

C C are springs, secured at one end to the inner face of the brake-block, and having their other ends pressing against the shoulders *c* of the collar *a*. One spring extends upwardly and the other downwardly, and their ends secured to the blocks may be brought in as near to their other ends as it is desired to limit the movement of the block.

In order to protect the springs and to keep their ends against the shoulders *c*, I have the cast boxes D D screwed to the block and completely inclosing the springs. Their ends cannot spring free of the shoulders *c* when the block is moved. If found preferable, I could recess the springs within the block; but I prefer to partly recess them and to cover them with boxes D D.

The operation of this block is as follows: When brought against the wheel squarely it acts as an ordinary block; but when the vehicle is loaded and the block depressed its top part will come first in contact with the wheel; but being loose upon the rod it will give against the upper spring and allow the bottom part to come up to the wheel, thus fitting its faces squarely against it. By the position of the springs it has a limit of motion, as the end secured to the block cannot pass the end in the shoulder of the collar; but the two may be pressed together. Likewise, when the block is raised the bottom will strike first and will yield to bring its top against the wheel. By being thus fitted at any point to the wheel the wear upon the shoe is equal at all points, and it will always present

a neat appearance, besides being effective in operation.

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

5 1. The brake rod or shaft A, having a collar or flange, *a*, with shoulders *c c*, and the brake-block B, loosely fitted upon the end of the brake rod or shaft, in combination with
10 the springs C C, having one end secured to the inner face of the brake-block and the other fitted in and resting against the shoulders *c c* of the collar *a*, substantially as and for the purpose herein described.

2. The brake rod or shaft A, having a col- 15
lar or flange, *a*, with shoulders *c c*, and the brake-block B, loosely fitted upon the brake rod or shaft, in combination with the springs C C, secured to the brake-block and imping-
ing against the shoulders *c c* of collar *a*, and 20
the inclosing and securing boxes D D, all arranged substantially as and for the purpose herein described.

In witness whereof I hereunto set my hand.

ALDEN W. SANBORN.

Witnesses:

C. D. COLE,

J. H. BLOOD.