No. 617,995. Patented Jan. 17, 1899.

S. A. ROSEMAN.

BRAKE LEVER.

(Application filed Oct. 19, 1898.)

(No Model.)

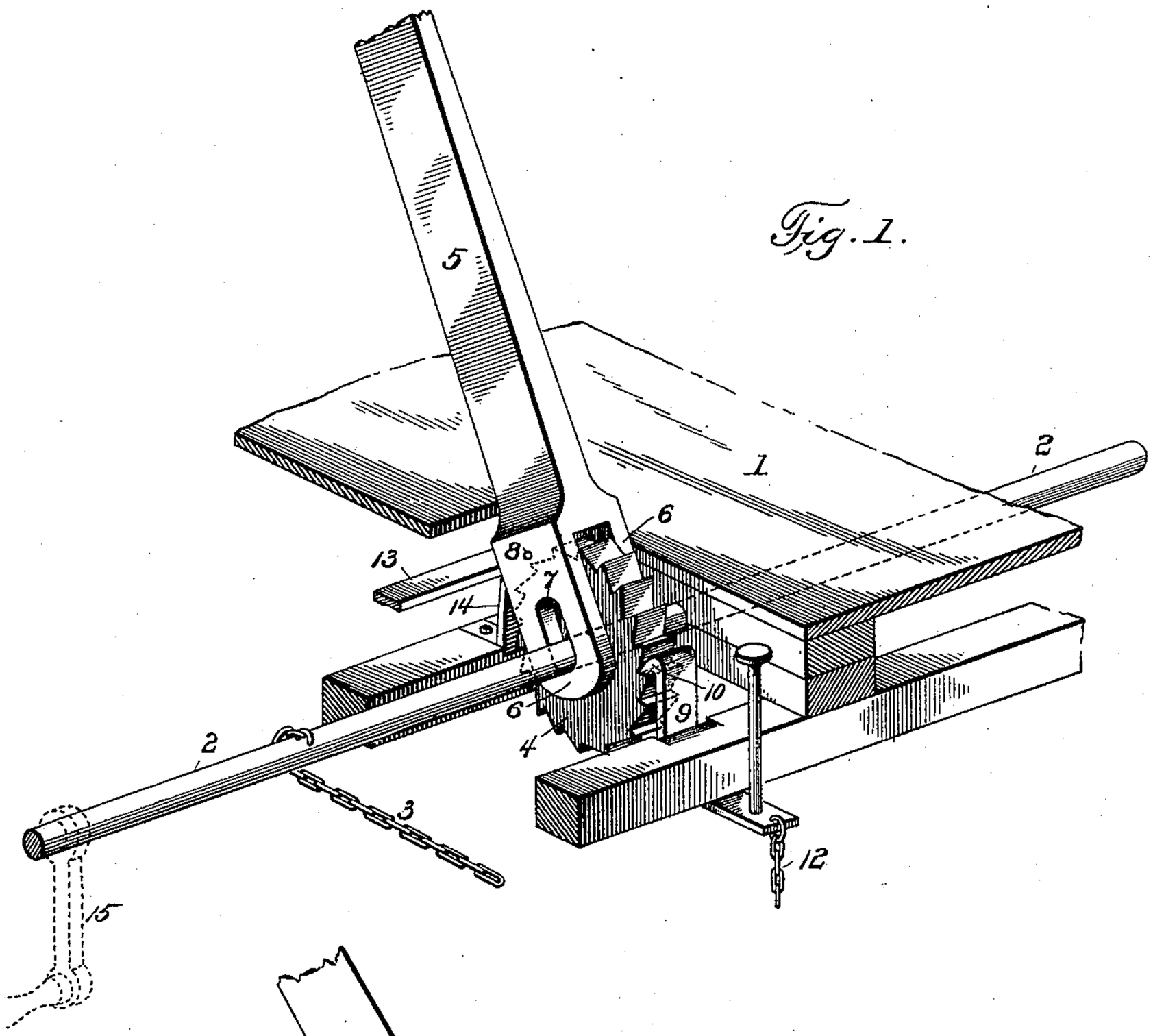

Fig. 1.

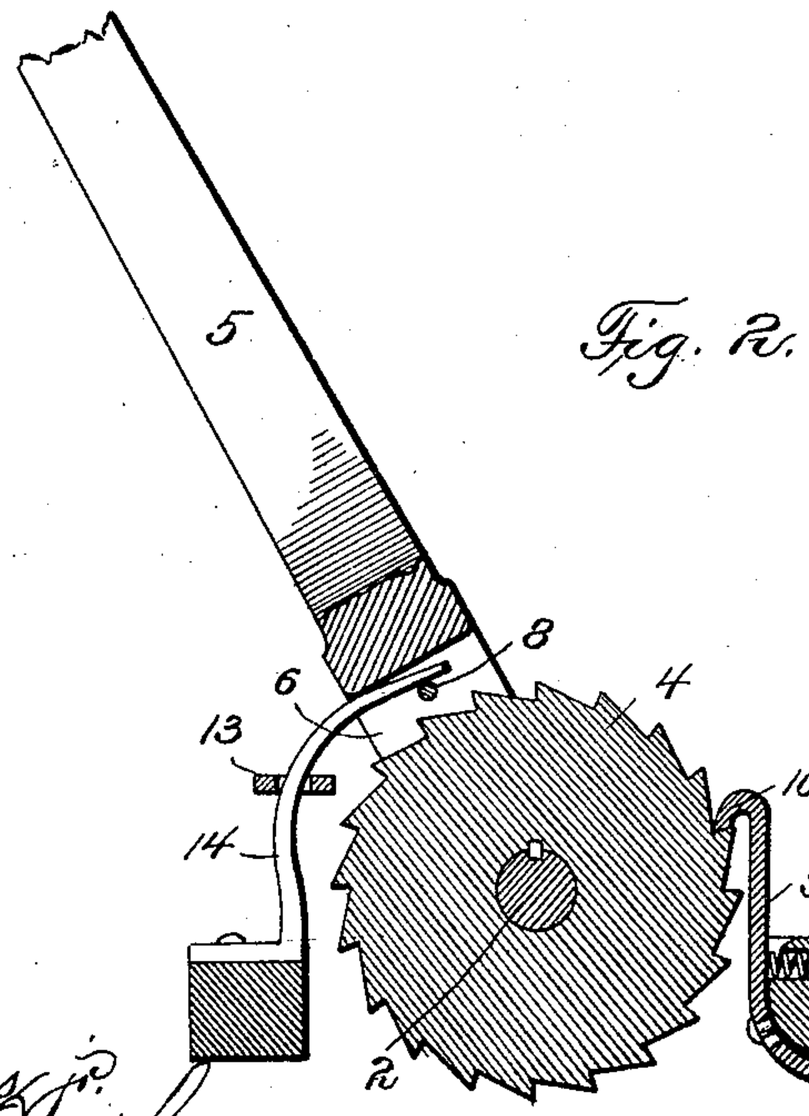

Fig. 2.

Witnesses
John Enders jr.
F. W. F. Gilbert.

Inventor
Samuel A. Roseman
By L. Deane & Son
His Attorneys.

UNITED STATES PATENT OFFICE.

SAMUEL A. ROSEMAN, OF LAUREL, PENNSYLVANIA.

BRAKE-LEVER.

SPECIFICATION forming part of Letters Patent No. 617,995, dated January 17, 1899.

Application filed October 19, 1898. Serial No. 694,013. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL A. ROSEMAN, a citizen of the United States, residing at Laurel, in the county of York and State of Pennsylvania, have invented certain new and useful Improvements in Brake-Levers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to brake-levers designed for use in connection with street and electric cars, wagons, and other vehicles, although it may be used for many other purposes, if desired.

The object of the invention is to provide an improved construction of the same by which I attain superior advantages with respect to efficiency in use.

The invention consists in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a detail perspective view of a brake-lever and connections constructed in accordance with my invention. Fig. 2 is a vertical section taken longitudinally through the brake-lever.

In the said drawings the reference-numeral 1 designates a portion of the platform of a street, electric, or other car, and 2 a transverse rock-shaft journaled thereto and provided with a chain 3, which is connected with the levers which operate the brake-bar, by which the brake-shoes are brought into contact with the wheels. These levers and bar are not shown, but may be of any ordinary or suitable construction, and form no part of my invention. Secured to said rock-shaft is a ratchet-wheel 4, firmly fixed thereto, so that as it is operated, as hereinafter described, the said shaft will be correspondingly operated.

The numeral 5 designates the brake-lever, the lower end of which is bifurcated, forming two arms 6, provided with opposite slots 7, through which the rock-shaft loosely passes to enable said lever to have a limited vertical movement. Secured to said arms is a transverse pin 8, adapted to engage with the ratchet-wheel and rotate the same when the lever is operated. Pivoted to the car-frame is an angle-catch 9, having a lug 10 at one end, which is adapted to engage with the ratchet-wheel and lock the same against backward movement, and is provided with an upwardly-extending pin projecting through the floor of the car-platform, by depressing which by the foot the catch can be disengaged from the ratchet, so as to release the latter. Said catch is also provided with a chain 12, by which it may be released by hand. The frame of the car is recessed at the point 9^a, and within this recess is secured a coil-spring 10^a, which bears against the catch 9 to hold it in engagement with the ratchet-wheel. The opening 11^a in the catch 9, through which the pivot-pin 12^a passes, is large enough to permit a pivotal movement of the catch, the adjacent face of the frame being recessed to provide for this movement.

The numeral 13 designates a bar secured to the car-frame, having a central hole or slot through which projects an upwardly-extending curved stop 14, the free end of which is adapted to engage between the lower end of the lever and the pin 8 to lift the lever, thereby disengaging its transverse pin 8 from the teeth of the ratchet-wheel.

The slotted bar 13 serves as a guide to steady and reinforce the curved stop 14 and prevent its lateral displacement.

The rock-shaft at the end may be provided with a crank 4, if desired, so that it may be operated from the side of the car.

The operation will be readily understood. When it is desired to set the brakes, the lever is thrown backward, winding the chain upon the shaft, which will cause the brake-shoes to come in contact with the wheels and the catch to engage with the ratchet-wheel to lock the lever. If one movement of the lever is not sufficient to set the brakes, it can be moved forward and again pulled back as many turns as found necessary. The brakes are released by either pressing upon the pin secured to the catch or pulling upon the chain, as the case may be, when the tension of the brake connections will unwind the chain and throw the lever forward, or the lever may be thrown forward by hand when released, the curved stop obviating all liability of its being broken by striking the car-frame.

It will be obvious that the invention can

be applied to wagons or other vehicles by slight changes, which would readily suggest themselves.

Having thus fully described my invention, what I claim is—

1. The combination with the rock-shaft and the ratchet-wheel secured thereto, of the lever having bifurcated arms formed with elongated slots, the transverse pin secured to said arms, the reinforcing guide-bar formed with a hole or slot and the curved arm the free end of which extends above the transverse pin of the lever and is adapted to lift the lever to disengage said pin from the teeth of the ratchet-wheel, substantially as described.

2. The combination with the rock-shaft and the ratchet-wheel secured thereto, of the lever having bifurcated arms formed with elongated slots, the transverse pin secured to said lever, the reinforcing guide-bar formed with a hole or slot, the curved stop passing therethrough and projecting above the transverse pin, the pivoted angle-catch adapted to engage with said ratchet-wheel and a spring seated in a recess of the car-frame behind the angle-catch, substantially as described.

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

SAMUEL A. ROSEMAN.

Witnesses:

ADDIE I. MINNICH,

SETH MINNICH.