(No Model.)

J. R. WILHELM.

CAR BRAKE.

No. 264,389. Patented Sept. 12, 1882.

Fig. 1.

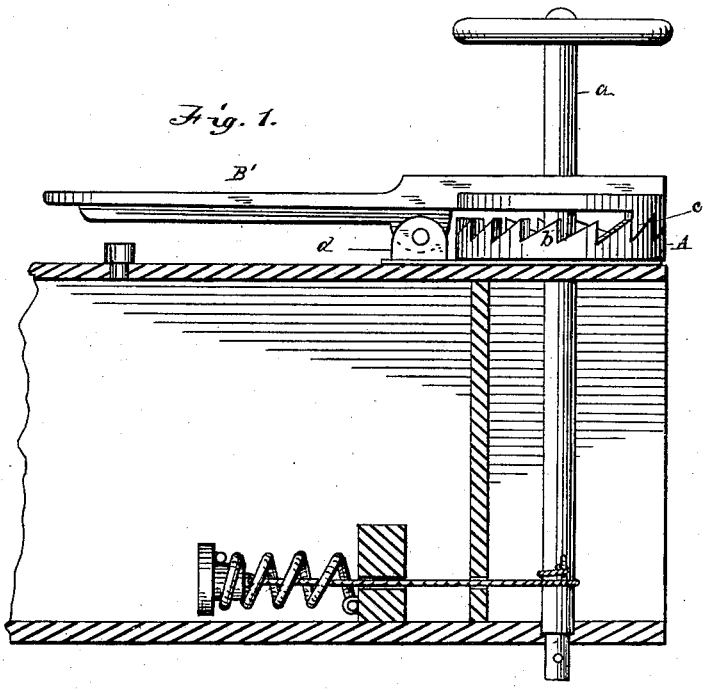


Fig. 2.

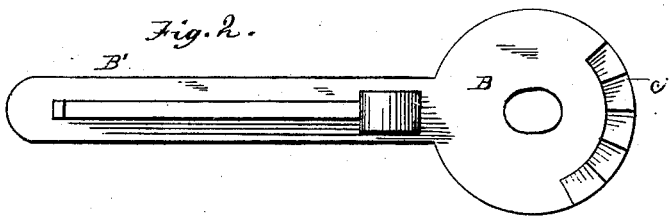
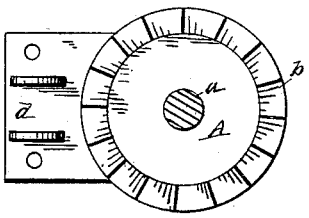


Fig. 3.



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his Attys

UNITED STATES PATENT OFFICE.

JOHN R. WILHELM, OF ADDISON, NEW YORK, ASSIGNOR OF ONE-FOURTH TO EDWARD C. PAXTON, OF SAME PLACE.

CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 264,389, dated September 12, 1882.

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

To all whom it may concern:

Be it known that I, JOHN R. WILHELM, a citizen of the United States, residing at Addison, in the county of Steuben and State of New York, have invented certain new and useful Improvements in Car-Brakes; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification, and in which—

Figure 1 is a sectional elevation of my improved car-brake ratchet and pawl as applied for use, and Figs. 2 and 3 are views in detail of the pawl and ratchet.

This invention relates to an improvement in pawls and ratchets specially adapted for car-brakes, and has for its object to exclude snow, ice, &c., and to obviate the necessity of tightening up the brake-shaft to enable the retraction or disengagement of the pawl from the ratchet in releasing the brake.

The nature of this invention consists in the employment of a ratchet having a circular arrangement of teeth, or a tooth and a pawl with a segmental arrangement of teeth, and adapted to be elevated out of engagement with the ratchet, substantially as hereinafter more fully set forth.

In carrying out my invention I construct the ratchet of a pawl or disk, A, through which the break-shaft *a* passes and is fastened. This plate or disk is provided upon its upper surface with a circular arrangement of teeth, *b*, made in the usual manner of making ratchet-teeth. B is the pawl, which is constructed also of a disk or plate having a segmental arrangement of teeth, *c*, and an oblong slot in its center, through which the brake-shaft passes—the counterpart of the ratchet-teeth—and adapted to engage with the teeth of the ratchet. The disk or plate of the pawl B has preferably formed therewith a lever, B′, extended from one side thereof. It is fulcrumed preferably as shown—*i. e.*, upon an extension, *d*, of the ratchet-disk, and between lugs cast thereon, through which and a lug depending from the said lever passes the pivot or pin.

It will be noticed that the pawl covers the ratchet, and thus excludes snow and water therefrom, and consequently prevents ice forming therein during cold weather.

It will be further observed that by simply pressing downward upon the lever of the pawl with the foot it will become disengaged or retracted from the ratchet, and thus disengage the brake of the cars, without first tightening the shaft to take the pressure off the pawl before it could be released from the ratchet.

It is obvious that a single tooth may replace the segmental arrangement of teeth on the pawl, and that a vice-versa arrangement of the teeth of the pawl and ratchet may be effected without departing from the spirit of my invention.

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

The combination, with the brake-shaft and the ratchet rigidly affixed thereto, and having a circular or segmental arrangement of teeth, of the disk-shaped pawl, having an oblong slot through which the brake-shaft passes, and one or more teeth, and a lever fulcrumed at a relatively fixed point to the shaft, substantially as and for the purpose set forth.

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

JOHN R. WILHELM.

Witnesses:

JAS. J. COLLINS,

JOSEPH MAYERS.