P. THOMSEN.

WAGON-BRAKE LEVER.

No. 192,032. Patented June 12, 1877.

Fig. 1.

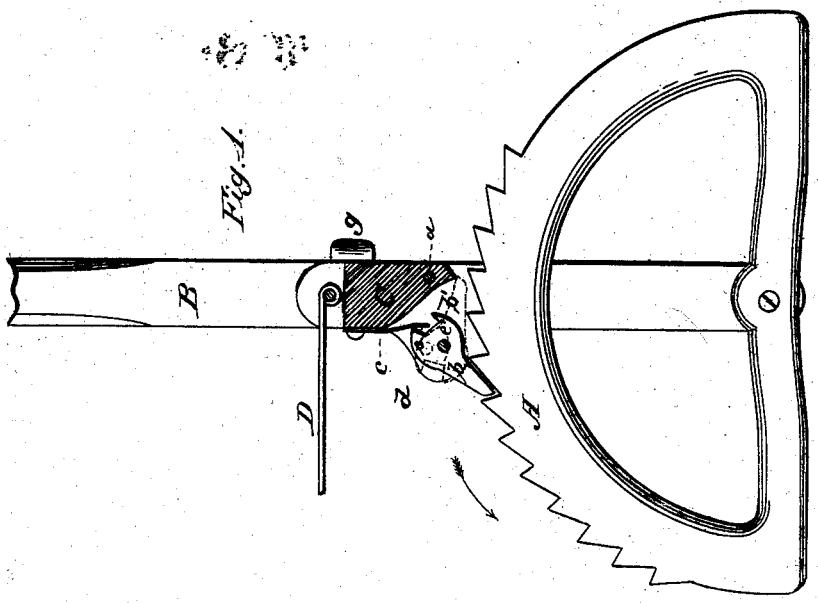



Fig. 2.

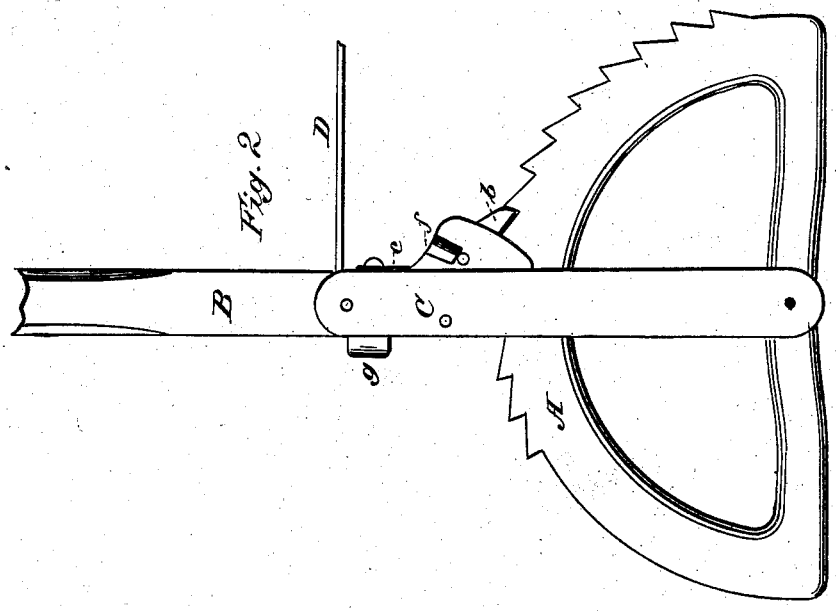
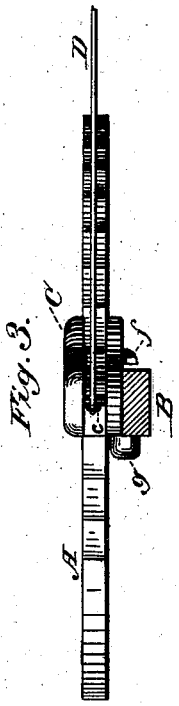



Fig. 3.

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# UNITED STATES PATENT OFFICE.

POUL THOMSEN, OF ATCHISON, KANSAS.

## IMPROVEMENT IN WAGON-BRAKE LEVERS.

Specification forming part of Letters Patent No. **192,032**, dated June 12, 1877; application filed April 21, 1877.

*To all whom it may concern:*

Be it known that I, POUL THOMSEN, of Atchison, in the county of Atchison and State of Kansas, have invented certain new and useful Improvements in Brakes for Sleighs and Vehicles; and I do hereby declare that the following is a full, clear, and exact description thereof, which 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 of reference marked thereon, which form a part of this specification.

This invention relates to braking devices for sleighs, sleds, or vehicles of any kind on which brakes are used; and it consists in the construction of the pawl-and-ratchet attachment for retaining the brake in position, in such a manner that when pushing back on the brake-lever it will fly clear back to the end of the ratchet without the pawl catching in any of its notches, thereby only partially disengaging the brake.

In the drawing, Figure 1 is a side elevation, (the plate which covers the pawl-box having been removed.) Fig. 2 is a view of the side opposite to that represented in the preceding figure; and Fig. 3 is a top plan.

Similar letters of reference indicate corresponding parts in all the figures.

A is a segmental ratchet, and B is the brake-lever. C is the pawl-box, which is pivoted at *a* upon the side of lever B, and contains a pawl, *b*, and a spring, *c*. The latter is secured upon a block or piece, *d*, in the back of pawl-box C, its end projecting into the segmental notch *b'* in pawl *b*, as shown, so as to work against either of the two shoulders, *e* or *e'*, of pawl *b*. D is a rod or chain, which is secured, in any suitable manner, to the upper end of pawl-box C, and passes to the brake, (not shown in the drawing.)

Secured upon the back-plate of box C are two lugs, *f* and *g*; one of which, *f*, prevents, by abutting against lever B, the pawl-box from tilting too far forward, while the other, *g*, by abutting against the other side of the lever, prevents box C from tilting too far on the opposite side. Between these two lugs the box has free play to oscillate. When the lever B is grasped by the hand of the driver, box C will be in a position flush with the lever; that is, lug *g* lying close up against the lever, as represented in Fig. 2 of the drawing.

By this construction and arrangement of parts, pawl *b* will present a rigid resistance against the notches in ratchet A, thereby preventing the lever from swinging back of its own accord and keeping the brakes on after the driver, having applied the brakes, removes his hand from the lever. But when, to let off the brakes, he pushes back on lever B, in the direction of the arrow, the pivoted box C will permit pawl *b* to turn back, as indicated by the dotted lines in Fig. 1, so as to allow it to ride over the notches, and permit lever B to swing clear back. The segmental notch *b'* in pawl *b* allows the latter play enough for this purpose.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

The combination of the segmental ratchet A, brake-lever B and swinging pawl-box C, the latter having lugs *f g*, pawl *b*, and operating-spring *c*, substantially as and for the purpose herein shown and specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

POUL THOMSEN.

Witnesses:

PETER S. NOBLE,

SENECA HEATH.