

(No Model.)

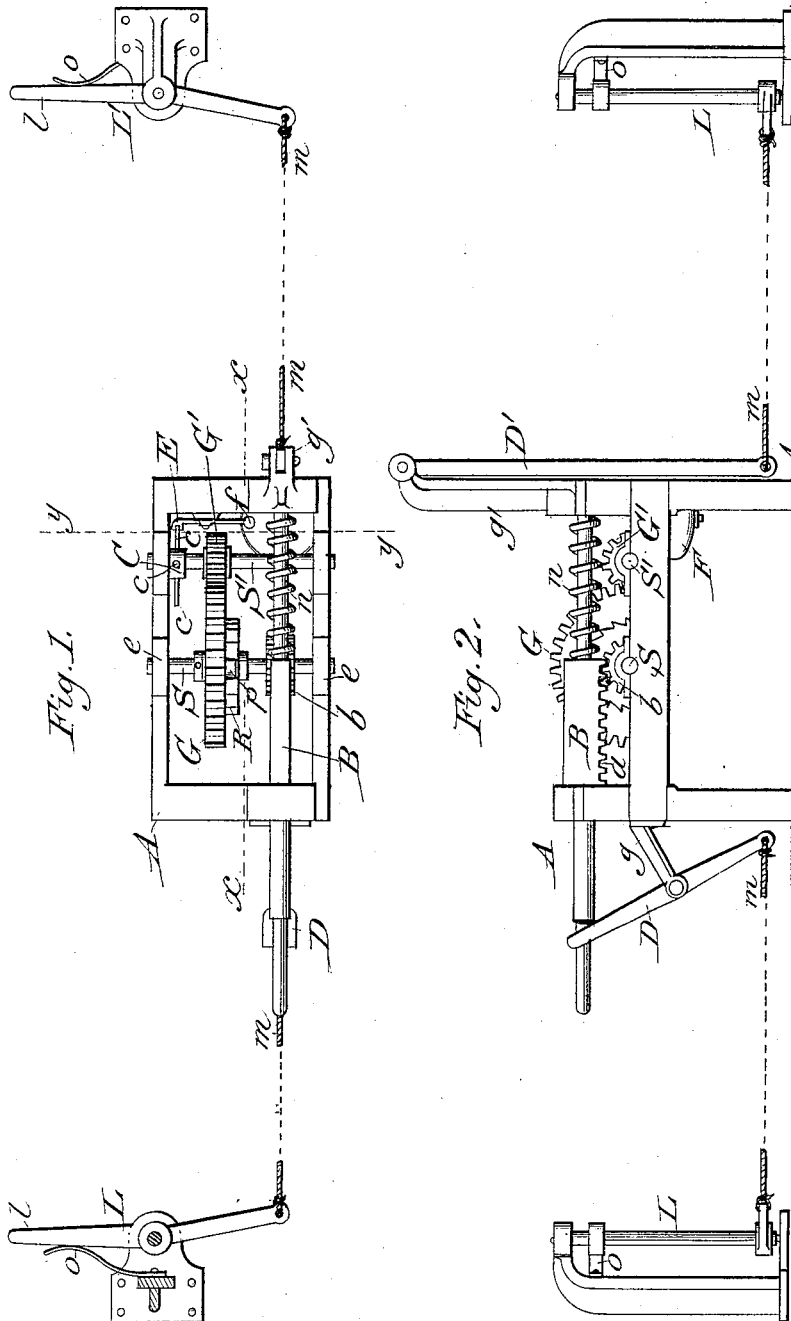
2 Sheets—Sheet 1.

J. W. PURSLOW.

RAILWAY SIGNAL.

No. 267,369.

Patented Nov. 14, 1882.



Attest:
J. H. Schott
A. R. Brown.

Inventor:
John W. Purslow.
per J. C. Tasker.
att'y.

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Fig. 3.

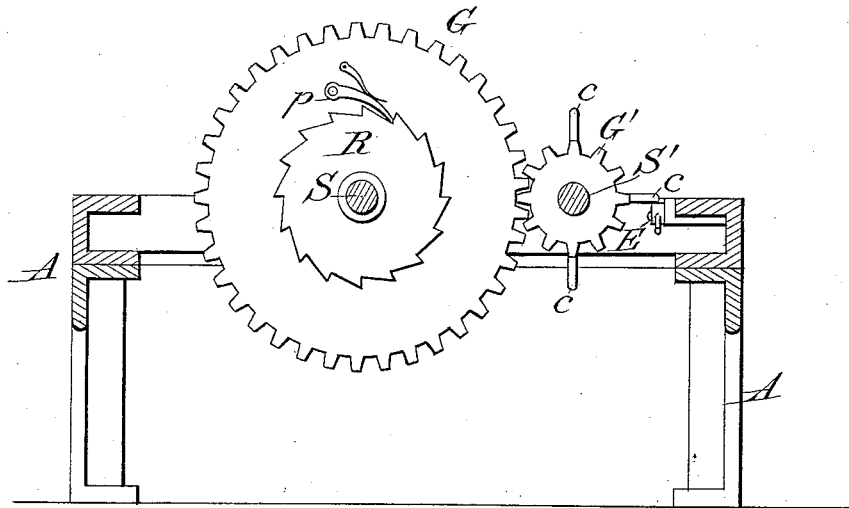
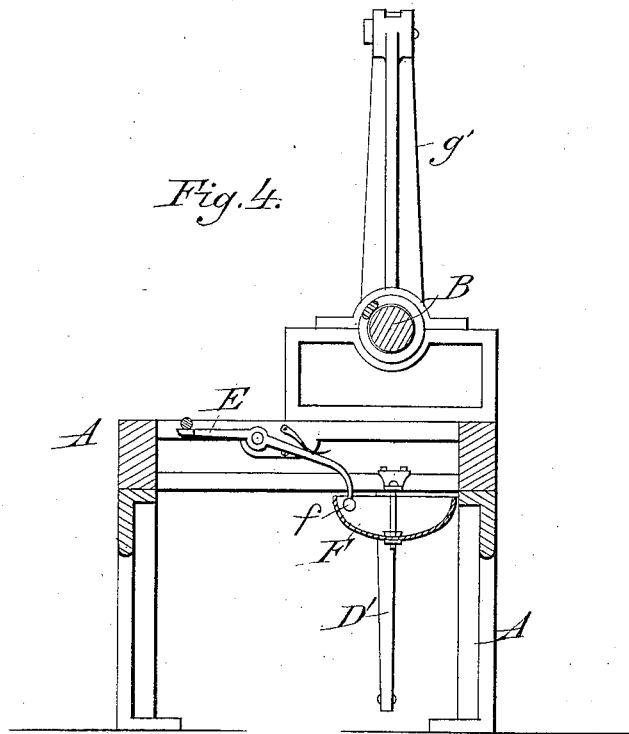


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN W. PURSLOW, OF DURANGO, COLORADO.

RAILWAY-SIGNAL.

SPECIFICATION forming part of Letters Patent No. 267,369, dated November 14, 1882.

Application filed May 15, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. PURSLOW, a citizen of the United States of America, residing at Durango, in the county of La Plata and State of Colorado, have invented certain new and useful Improvements in Railway-Signals, of which the following is a specification.

My invention relates to improvements in railway-signals.

The object of my invention is to provide an alarm-signal for use at the crossing of a wagon-road and railroad, so constructed and arranged that an alarm is automatically sounded at the crossing by an approaching train from either direction, warning passing teams of the danger therefrom. I attain this object by the mechanism shown in the accompanying drawings, in which—

Figure 1 is a plan of my improved alarm-signal. Fig. 2 is a side elevation of the same. Fig. 3 is a sectional elevation taken on the line *x x* in Fig. 1. Fig. 4 is a sectional elevation taken on the line *y y* on Fig. 1.

Similar letters refer to similar parts throughout the several views.

In the said drawings, *A A* represents the main frame of the machine, which is to be located at the road-crossing and inclosed within a house or box. Sliding longitudinally through the main frame *A A*, in suitable bearings in the ends thereof, is a sliding bar, *B*, provided on its under side with a rack, *a*, engaging with a pinion, *b*, secured to a shaft, *s*, journaled at each end in suitable bearings, *e e*, in the main frame *A A*.

Secured on the shaft *s*, near the middle of its length, is a ratchet-wheel, *R*, with which engages a pawl, *p*, on a gear-wheel, *G*, which turns loosely on the shaft *s* and meshes with a gear-wheel, *G'*, on a shaft, *s'*, also journaled at each end in suitable bearings on the main frame *A A*, and provided with a star-wheel, *C*, the arms *c* of which strike one end of the vibrating lever *E*, the other end of which carries the striker *f*, which strikes the gong *F*, secured to the lower part of the main frame *A A*.

The sliding bar *B* is connected at each end to levers *D* and *D'*, pivoted respectively to the brackets *g* and *g'* on the main frame *A A*, in such a manner that when their lower ends are drawn outward the sliding bar *B* is forced back, compressing a coiled spring, *n*, coiled

thereon. The lower ends of the levers *D* and *D'* are connected by means of a cable, *m*, or its equivalent, to the oscillating levers *L* and *L'*. These oscillating levers *L* and *L'* are to be placed along the railway-track four or five hundred yards each way from the main frame *A A*, with the cable *m* running underground or strung on posts or poles above ground.

The levers *L L'* may be inclosed by suitable boxing to protect them from the weather, the ends *l* being left projecting sufficiently to be struck by a bracket or projection placed on the locomotive for this purpose.

The operation is as follows: A train approaching in either direction strikes the end *l* of levers *L* or *L'*, and through the agency of the cables *m* and levers *D* or *D'* forces back the sliding bar *B* and compresses the spring *n*, the shaft *s*, by reason of the ratchet-wheel *R* and pawl *p*, turning loosely in the gear *G*. The projection on the locomotive having passed the lever *L*, the recoil of the spring *n* forces back the sliding bar to its original position and sets the lever *L L'* for the next train. The rack *a*, engaging with the pinion *b*, revolves the shaft *s* and ratchet-wheel *R*, which, by reason of the pawl *p*, rotates the gear *G*, and through the agency of gear *G*, star-wheel *c*, and the vibrating lever *E* sounds an alarm on the gong *F*. The gong is only sounded by a train approaching the crossing. A train going in the opposite direction, striking the levers *L L'*, merely tilts them back without any action on the machine, after which they are again brought into position by a spring, *o*.

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

1. In a railway-signal, a sliding bar, *B*, having rack *a* and a spring, *n*, in combination with shaft *s*, having pinion *b*, ratchet-wheel *R*, and gear *G*, with pawl *p*, substantially as shown and described.

2. In a railway-signal, the sliding bar *B* and spring *n*, in combination with the levers *D D'* and *L L'* and means of connecting the same, substantially as described and shown.

3. The combination of the sliding bar *B*, having rack *a* and spring *n*, shaft *s*, pinion *b*, ratchet-wheel *R*, pawl *p*, gears *G G'*, star-wheel *c*, vibrating lever *E*, and gong *F*, substantially as shown and described.

4. The combination of the levers L L' and
D D' and means of connecting the same with
sliding bar B, having rack *a* and spring *n*, pin-
ion *b*, shaft *s*, ratchet-wheel R, pawl *p*, gears
5 G G', star-wheel *c*, vibrating lever E, and gong
F, substantially as described and shown, and
for the purpose set forth.

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

JOHN W. PURSLOW.

Witnesses:

JOHN P. WYNN,
R. H. MCFADDEN.