

H. G. SEDGWICK.  
 AUTOMATIC TRAIN STOP.  
 APPLICATION FILED SEPT. 4, 1907.

900,215.

Patented Oct. 6, 1908.

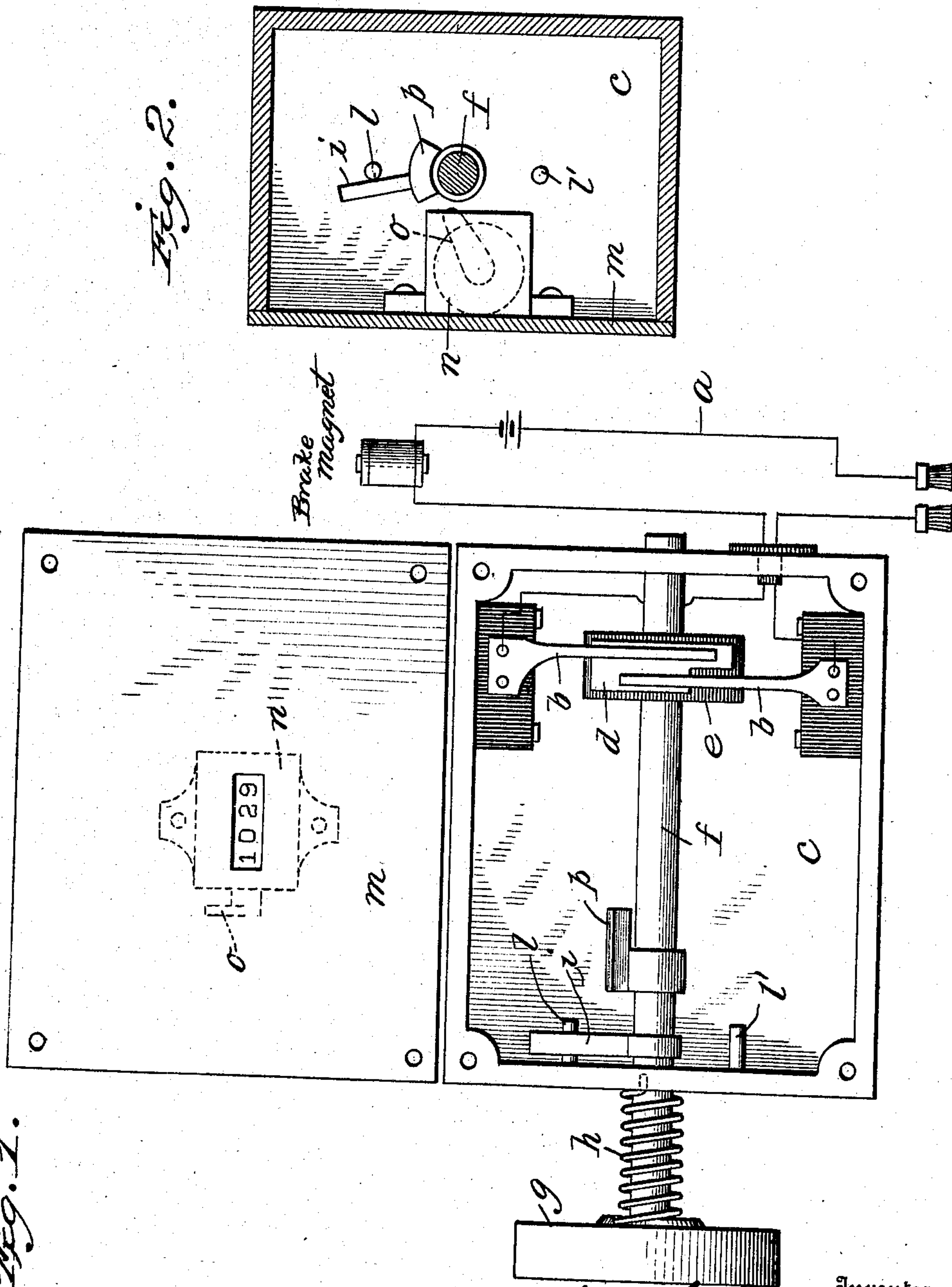


Fig. 1.

Fig. 2.

Witnesses  
 Edwin L. Jewell  
 C. R. Bridges

Inventor  
 Hiram G. Sedgwick,  
 Davis & Davis,

Attorneys



# UNITED STATES PATENT OFFICE.

HIRAM G. SEDGWICK, OF MILL VALLEY, CALIFORNIA.

## AUTOMATIC TRAIN-STOP.

No. 900,215.

Specification of Letters Patent.

Patented Oct. 6, 1908.

Application filed September 4, 1907. Serial No. 391,366.

*To all whom it may concern:*

Be it known that I, HIRAM G. SEDGWICK, a citizen of the United States of America, and resident of Mill Valley, county of Marin, State of California, have invented certain new and useful Improvements in Automatic Train-Stops, of which the following is a full and clear specification, reference being had to the accompanying drawing, in which—

Figure 1 is a plan view of the switch box with the cover removed; and Fig. 2 a vertical sectional view of the switch box showing the cover in place.

This invention has relation to that class of automatic train-stopping apparatus in which the roadbed is divided up into blocks and the train as it proceeds along the road preempts each block as it enters the same.

One type of such systems is shown in my patent dated September 3, 1907, and numbered 864,866. In these systems when a train attempts to enter a preempts zone or block suitable current collectors on the locomotive complete a circuit including a brake magnet and this magnet actuates the brake-applying mechanism.

The object of the present improvement is to provide a manually-controlled device in the cab so that the engineer can, when so ordered, disrupt the brake-applying circuit and render the same inoperative and thus permit his train to enter the preempts block, and to so safeguard this entering of a preempts block that an engineer cannot pass into the same without that fact being indelibly recorded by the apparatus and thus permit the responsibility to be located.

All automatic train-stopping systems to be practicable must facilitate the movement of trains, and at times it becomes absolutely imperative for a train to enter a preempts block; for instance, a wrecking train must enter the block preempts by the wrecked train; again long freight trains become stalled on up grades and a following train must often assist the stalled train up over the grade; and again, where traffic is congested on double track roads it is very necessary at times to run fast trains around slow trains moving in the same direction, this being done by special telegraphic orders to the rear train to switch off on the left-hand track and pass around the slow moving train. In these instances and in others it is necessary that a following train shall

have the ability to pass into a preempts block but at the same time it is essential that some indelible and absolutely positive means be provided for registering this fact.

I prefer embodying my invention in a small box which may be placed in the cab of the locomotive within reach of the engineer. I prefer so constructing it that the circuit shall be normally closed and can only be held open by the actual application of the hand of the engineer so that when the hand of the engineer is removed the circuit will be automatically closed again, thus preventing forgetfulness on the part of the engineer from rendering his automatic brake-applying mechanism inoperative. I prefer locating the device in such position in the cab that the engineer shall be put to more or less discomfort in actuating it so as to thereby insure its prompt release from his hand after he has passed the stopping point on the roadbed.

Referring to the drawings by reference characters, *a* designates the brake-magnet circuit in one branch of which is included a pair of spring contact-fingers *b* which are inclosed in a box *c* and which bear upon a metallic plate *d* carried on the periphery of a cylinder of insulating material *e*, said cylinder being mounted on the shaft *f* journaled in the end walls of the box and projecting at one end thereof and provided with a hand wheel *g*. By rotating the shaft *f* by means of the wheel *g* it will be observed that one of the fingers *b* will pass off the contact plate and thus break the operating circuit, and to automatically return the shaft to its normal position when the wheel is released I employ a suitable coiled spring *h*. To limit the movement of the rock shaft *f* I attach thereto a radial arm *i* which normally rests against a pin *l* and strikes against a companion pin *l'* on the opposite side of the shaft and thus limits the rotation of the shaft.

I fasten to the inner face of the cover *m* of the box a suitable recorder *n* whose shaft is provided as usual with a radial arm *o* which projects in close proximity to the shaft *f*. Fastened to the shaft *f* is a cam *p* which, when the shaft is rotated, strikes the arm *o* and causes the movement of the shaft to be recorded. It will be obvious that the cam and the arm shall be so proportioned and positioned that registration will take place before the circuit is broken at the contacts so that it will be impossible to disrupt the



brake-applying circuit without registering that fact.

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

In a train-stopping apparatus embodying a brake-applying circuit, a circuit-breaker in said circuit and means for manually-operating it, means for automatically restoring the circuit-breaker to normally closed position

when released, and a registering device operated every time the circuit is broken, for the purpose set forth.

In testimony whereof I hereunto affix my signature in the presence of two witnesses this 27<sup>th</sup> day of August 1907.

HIRAM G. SEDGWICK.

Witnesses:

S. H. ROBERTS,  
HENRIETTA ROBERTS.