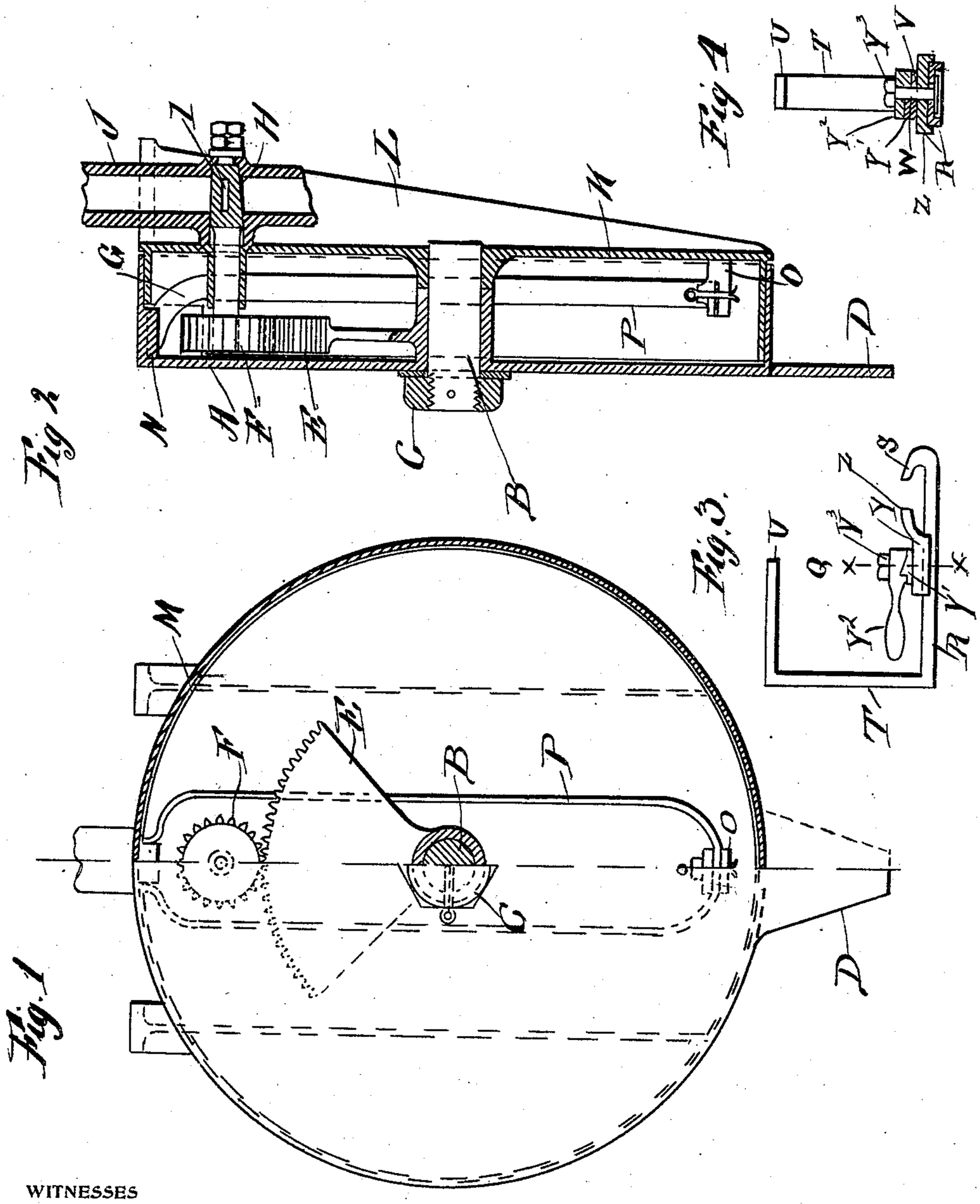
J. M. KENNEDY & I. W. GLEASON.

SIGNAL.

APPLICATION FILED JAN. 27, 1909.

928,666. Patented July 20, 1909.



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JAMES M. KENNEDY, OF LEWISBURG, AND IRVIN W. GLEASON, OF GLEASONTON, PENNSYLVANIA.

SIGNAL.

No. 928,666. Specification of Letters Patent. Patented July 20, 1909.

Application filed January 27, 1909. Serial No. 474,455.

To all whom it may concern:

Be it known that we, JAMES M. KENNEDY and IRVIN W. GLEASON, citizens of the United States, residing at Lewisburg and Gleasonton, counties of Union and Clinton, respectively, and State of Pennsylvania, have invented a certain new and useful Improvement in Signals, of which the following is a specification.

Our invention relates to a new and useful improvement in signals, and especially to that class of signals which are used in notifying the engineer of a train that the train preceding him is blocked, or that some accident has occurred, which requires him to bring his train to a stop.

Another object of our invention is to provide a device of this character which will notify the engineer by means of the air whistle should there be a storm which would hide the signals or the flagman.

With these ends in view, this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, we will describe its construction in detail, referring by letter to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a view half in elevation and half in section of our improved signal. Fig. 2, a longitudinal sectional view thereof. Fig. 3, a side elevation of the detachable contact member, and Fig. 4, a sectional view at the line *x*—*x* of Fig. 3.

In carrying out our invention as here embodied, A represents a casing journaled on the shaft B, and fastened thereon by the nut C threaded on the end of the shaft B. This casing is provided at the bottom thereof with a lug D adapted to come in contact with a suitable contact member to be hereinafter described.

Secured to the inside of the casing A is a toothed segment E, the teeth of which are adapted to engage with the teeth of the pinion F, said pinion being secured to the shaft G of the valve H, having the opening I formed therein. The valve H is placed in the pipe J leading from the compressed air or steam tank to the whistle.

K represents a second casing having the brackets L formed therewith so that it may be fastened to any desirable part of the engine, and the flange of this casing is adapted to fit within the flange of the casing A, a portion of the flange of the casing K being cut away as indicated by M, so as to allow the free movement of the casing A, which is provided with a lug N near its upper end. The casing K is provided with a lug O, to which is fastened the flat spring P, the free ends of said spring resting against the lug N formed with the casing A, so that when the casing A has been drawn to one side through the extension D coming in contact with a suitable contact member it will be brought back to its original position as soon as it disengages from said contact member.

Q denotes a detachable contact member composed of the base R, having one end turned up to form the finger S, which is adapted to fit over the bottom flange of the rail, and the other end is turned up at right angles to form the arm T, and this arm is again bent at right angles to form the extension U, which runs parallel with the base R. This base is provided with a slot V through which passes the bolt W, which also passes through the sliding member Y, said sliding member having a finger Z formed therewith similar to the finger S formed with the base, so that it will fit upon the opposite side of the bottom flange of the rails. Secured to the sliding member Y is a cam Y′, against which rests the cam wrench Y^2. The bolt V also passes through the cam and the cam wrench and the nut Y^3 is then threaded thereon which holds the parts together.

In practice when it is desired to stop a train by notifying the engineer the contact member Q is placed on the track, the fingers S and Z fitting upon the bottom flanges of the rail, and when the right adjustment has been acquired by the sliding member Y, the cam wrench Y^2 is turned, which tightens the parts and holds the contact member securely to the track. When the train reaches the point at which the contact member is placed, the lug D will come in contact with the extension U swinging it to one side, which will do likewise with the toothed segment E, thus revolving the pinion F, which will turn the valve H until the opening I therein is in a vertical position, which will allow the air or steam to pass through the pipe J from the supply tank to the whistle, blowing the same, thus notifying the engineer that he must stop his train.

Of course we do not wish to be limited to the exact details here shown as these may be varied within certain limits without departing from the spirit of our invention.

Having thus fully described our invention, what we claim as new and useful, is—

1. In combination with a pipe leading from a supply tank to a whistle, of a valve, a shaft formed with said valve, a pinion secured to said shaft, a casing having a lug formed with the lower portion thereof and a lug formed with the inner surface of the upper portion thereof, a toothed segment secured to said casing, the teeth of which are adapted to engage with the teeth of the pinion, and means for turning said casing so that the valve will be turned, substantially as shown and described.

2. In combination with a shaft, a casing having an inner lug and an outer lug formed therewith journaled on said shaft, a toothed segment secured to the inner surface of said casing; a valve journaled in a pipe leading from a supply tank to a whistle, a shaft formed with said valve, a pinion secured to said shaft, the teeth of which engage with the teeth of the toothed segment, a second casing having a portion of the flange thereof cut away provided with external brackets and an internal lug, and a flat spring secured to said lug; the free end of which rests against the internal lug formed with the first named casing.

3. In combination with a shaft, a casing having an inner lug and an outer lug formed therewith journaled on said shaft, a toothed segment secured to the inner surface of said casing, a valve journaled in a pipe leading from a supply tank to a whistle, a shaft formed with said valve, a pinion secured to said shaft, the teeth of which engage with the teeth of the toothed segment, a second casing having a portion of the flange thereof cut away provided with external brackets and an internal lug, a flat spring secured to said lug, the free end of which rests against the internal lug formed with the first named casing, and a detachable contact member with which the lug formed on the lower portion of the first named casing is adapted to come in contact.

4. In combination with a shaft, a casing having an inner lug and an outer lug formed therewith journaled on said shaft, a toothed segment secured to the inner surface of said casing, a valve journaled in a pipe leading from a supply tank to a whistle, a shaft formed with said valve, a pinion secured to said shaft, the teeth of which engage with the teeth of the toothed segment, a second casing having a portion of the flange thereof cut away provided with external brackets and an internal lug; a flat spring secured to said lug; the free end of which rests against the internal lug formed with the first named casing, a detachable contact member with which the lug formed on the lower portion of the first named casing is adapted to come in contact, said contact member being formed to produce a base having a slot formed therein, one end of said base being bent to form a finger, the opposite end being bent at right angles to form an arm, this arm being bent at right angles to form an extension, a sliding member provided with a finger and a cam, a cam wrench adapted to rest against the cam, a bolt passing through a slot in the base, the sliding member, cam and cam wrench and a nut threaded on said bolt for holding the parts together, as shown and described.

In testimony whereof, we have hereunto affixed our signatures in the presence of two subscribing witnesses.

JAMES M. KENNEDY.
IRVIN W. GLEASON.

Witnesses:
F. J. BRUNETT,
W. B. REILLEY.