

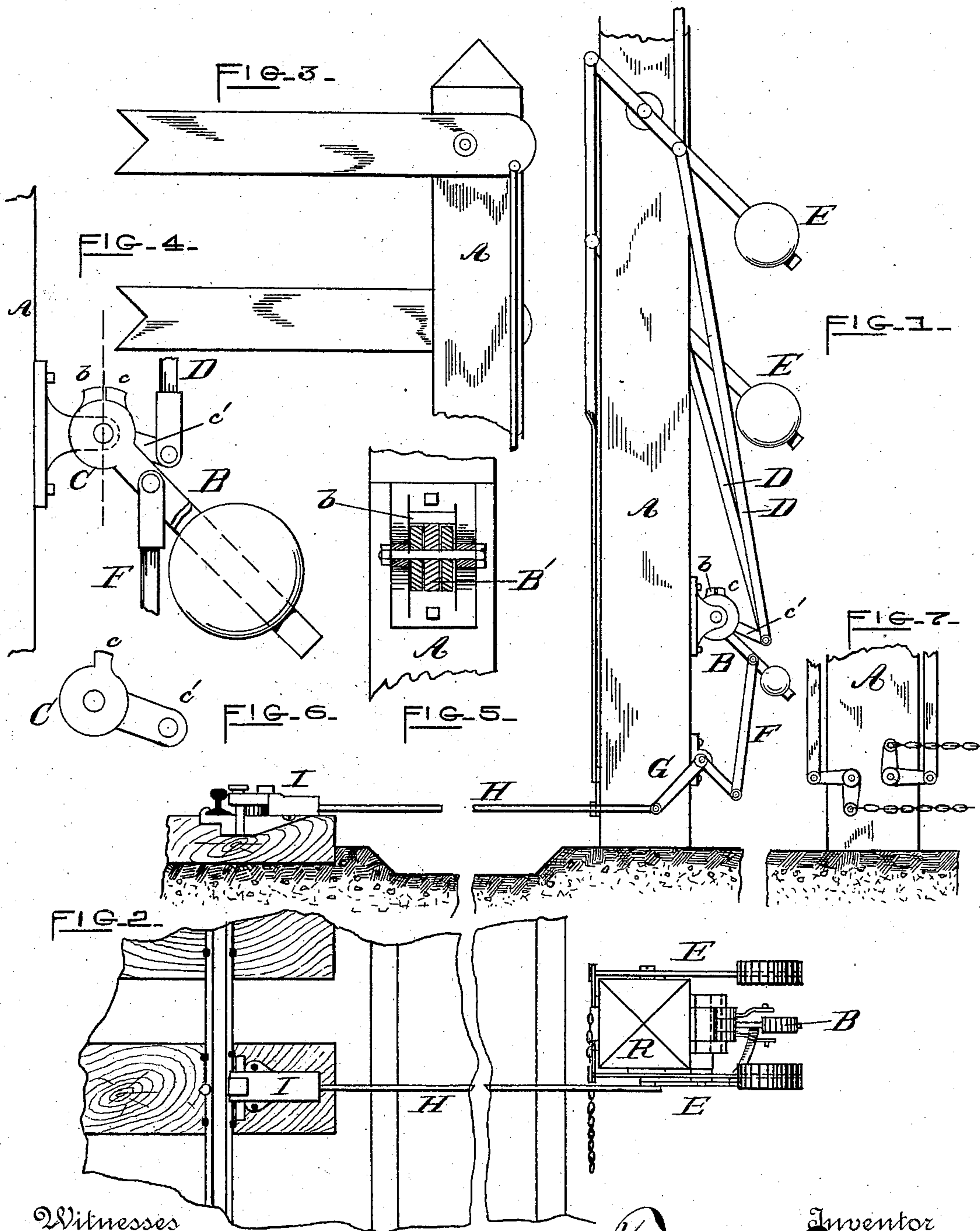
(No Model.)

F. H. TREACY.

DEVICE FOR OPERATING TORPEDO SIGNALS.

No. 369,138.

Patented Aug. 30, 1887.



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## DEVICE FOR OPERATING TORPEDO-SIGNALS.

SPECIFICATION forming part of Letters Patent No. 369,138, dated August 30, 1887.

Application filed December 10, 1886. Serial No. 221,219. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK H. TREACY, of Poughkeepsie, in the county of Dutchess and State of New York, have invented certain new and useful Improvements in Devices for Operating Torpedo-Signals; and I do hereby declare that the following is a full, clear, and exact description of the invention, 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 part of this specification.

My invention relates to signaling devices, and more particularly to semaphore-signals for railways, which are so constructed as to indicate to the engineer of an approaching train whether the main line is clear or whether it has been put in communication with a siding, the object of my invention being to provide such a signal with a device for placing a torpedo in position to be exploded in case the switch is open and to withdraw it when the switch is closed, either in connection with the main line or the siding.

Referring to the accompanying drawings, forming part of this specification, Figure 1 is a side elevation of a signal-post showing my invention. Fig. 2 is a plan view of the same. Figs. 3, 4, 5, 6, and 7 are detail views.

The same letters indicate like parts in all the figures.

The signal-post A is equipped with two semaphores, both operated from the same station. These semaphores are of well-known construction, and need not be here described in detail. They are preferably connected with the switch in such a manner that when the main track is clear one of the blades will be down, the other remaining up; when the main track is open and connection is made with the siding, the position of the blade is reversed, and when the switch is in an intermediate position, neither track being clear, both blades will be up. If the switch is connected with the semaphore, so as to operate them automatically, the blades will change places every time the switch is shifted, coming to "danger" as the switch-points reach the intermediate position. If by accident or malicious design the switch should be left open, it is imperative

to stop the train, and in order to supplement the visual signal I provide means for placing a torpedo in position to be exploded by the wheels of the train, as a further means of attracting the engineer's attention.

On the post A is suitably journaled a weighted lever, B, its hub B' having a cross-piece or lug, b, projecting therefrom. Adjacent to this hub are two dogs, C, pivoted concentrically with the hub B'. Each dog has a lip, c, which is adapted to engage with the lug b on the hub B'. The tail c' of each dog is connected by a rod, D, with the weighted lever E of its respective semaphore.

The lever B is connected by means of a rod, F, bell-crank lever G, and rod H, with a torpedo-machine, I, adjacent to the rail of the track, as shown.

The operation of the device is as follows: When the switch is left open and both blades of the semaphore are up, as shown in Fig. 3, the weighted lever B is in its lowest position, as shown in Fig. 1, and the torpedo is advanced into proximity with the track in position to be exploded; but when the switch is brought to one side or the other, so as to give a clear track either along the main line or into the siding, the corresponding blade is lowered, raising its lever E and pulling up the tail of the dog C, which is connected therewith. This forces the lip c of the dog against the lug b and causes the hub B' to turn with the dog, lifting the lever B and withdrawing the torpedo I from the track.

As the dogs and the hub are all loosely journaled, it follows that either dog may be actuated to turn the hub B without disturbing the other.

It will be seen that the torpedo is advanced and then retracted every time the switch is shifted and the relative position of the semaphore changed, so that in case the switch refuses to close after being opened both of the blades remain up and the torpedo is held ready to be fired.

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

1. The combination, with post A, of a semaphore-signal having a weighted lever, E, a weighted lever, B, suitably journaled on said

post, its hub being provided with a lug, *b*, a  
dog, C, suitably journaled on said post, with  
its lip *c* adapted to engage the lug *b*, rod D,  
connecting said dog with the weighted lever  
5 E, a torpedo-machine, I, and means for com-  
municating the movement of the lever B to  
the torpedo-machine.

2. The combination, with post A, carrying  
two signaling devices, of weighted lever B,  
10 suitably journaled on said post, its hub being  
provided with a lug, *b*, two dogs, C, connected,  
respectively, with the two signaling devices,  
each dog having a lip, *c*, adapted to engage

with the lug *b*, rod F, bell-crank lever G, rod  
H, and torpedo-machine I, all so combined 15  
and arranged that when either of said signal-  
ing devices indicates "safety" its dog C will be  
turned, raising the lever B and retracting the  
torpedo from the track.

In testimony that I claim the foregoing as 20  
my own I affix my signature in presence of two  
witnesses.

FRANK H. TREACY.

Witnesses:

O. E. DUFFY,

C. M. MERLE.