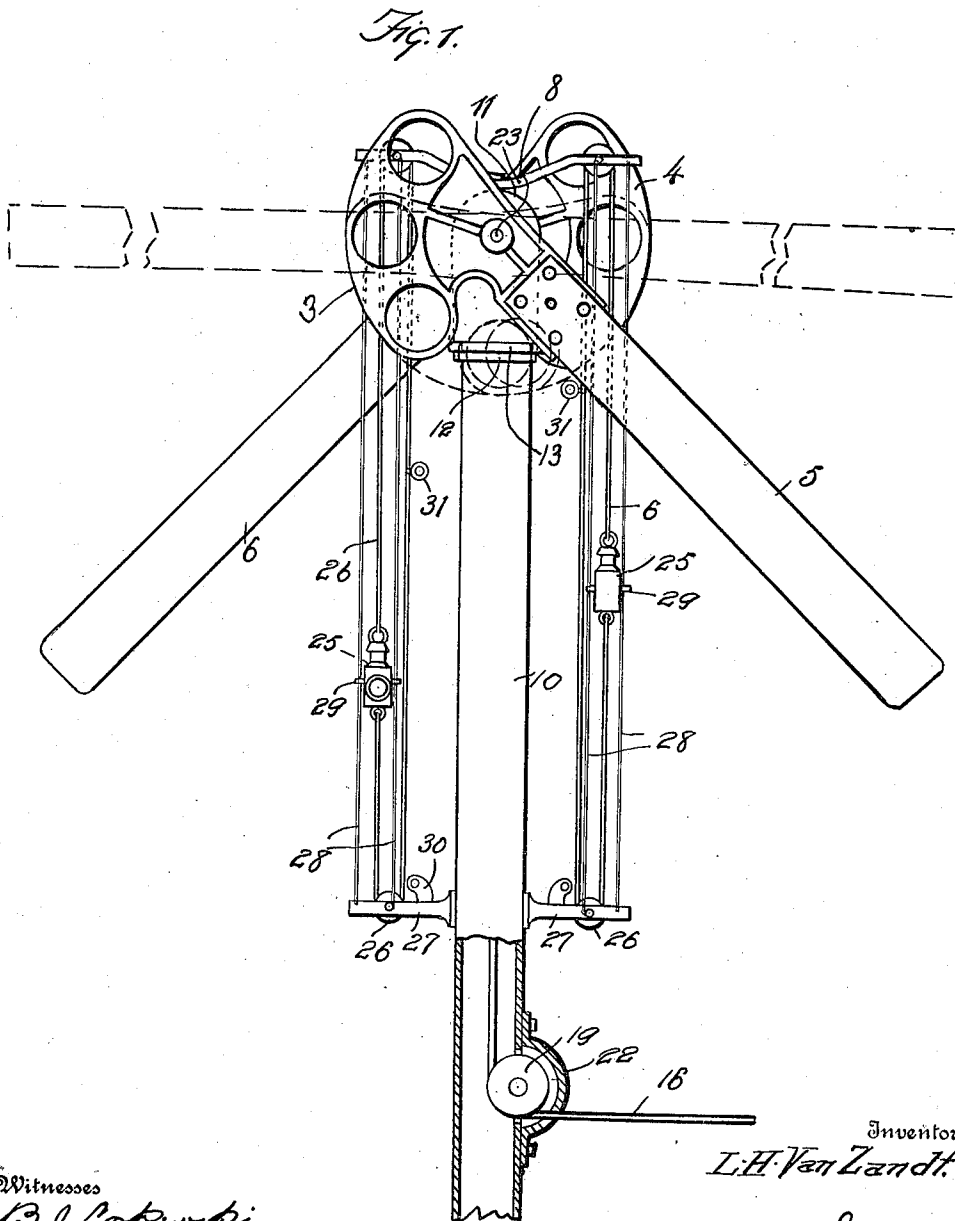


L. H. VAN ZANDT.
SEMAPHORE.
APPLICATION FILED DEC. 22, 1908.

1,014,985.

Patented Jan. 16, 1912.

2 SHEETS—SHEET 1.



Witnesses
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J. W. Stitt

Inventor
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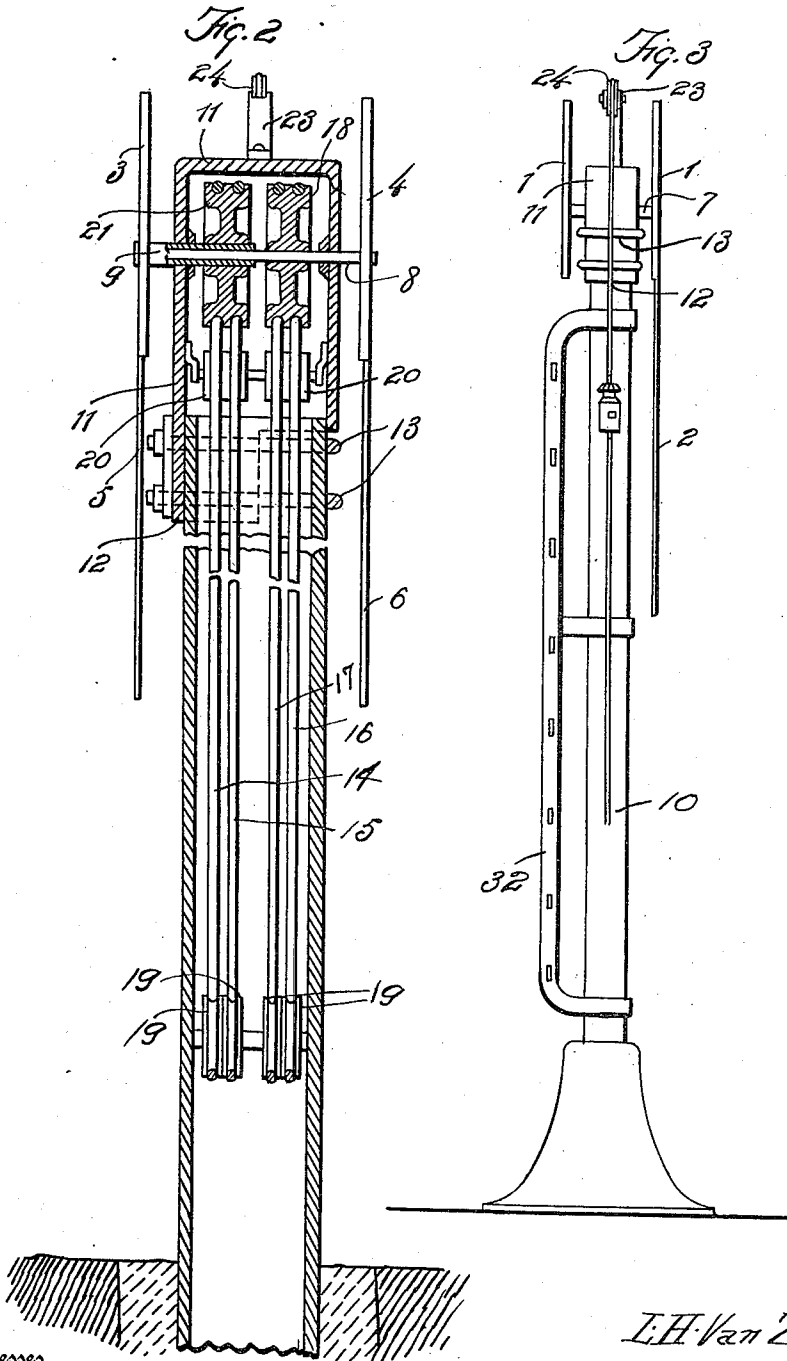
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UNITED STATES PATENT OFFICE.

LUTHER H. VAN ZANDT, OF FORT WORTH, TEXAS.

SEMAPHORE.

1,014,985.

Specification of Letters Patent.

Patented Jan. 16, 1912.

Application filed December 22, 1908. Serial No. 468,770.

To all whom it may concern:

Be it known that I, LUTHER H. VAN ZANDT, a citizen of the United States, residing at Fort Worth, in the county of Tarrant and State of Texas, have invented certain new and useful Improvements in Semaphores, of which the following is a specification.

This invention relates to signaling devices for railway trains, and the object is to provide certain improvements in devices for operating signals and also for insuring the operation of the signals in varying conditions of the weather.

One of the objects of the invention is to inclose the operating gearing so that ice will not interfere with the operation of the gearing during freezing temperature. The gearing is housed in so that no water can touch the gearing.

The semaphore herein set forth is particularly adapted for use with the signaling controlling mechanism set forth in a patent for train order signals No. 905,120, November 24, 1909.

Other objects and advantages will be fully explained in the following description and the invention will be more particularly pointed out in the claims.

Reference is had to the accompanying drawings which form a part of this application and specification.

Figure 1 is an elevation, being a face view, of a double semaphore, the lower part of the supporting post being shown in section to illustrate the manner of extending the operating cables. Fig. 2 is a vertical section of the casing and the operating gearing therein. Fig. 3 is a side elevation of a single semaphore, showing a ladder used with the semaphores.

Similar characters of reference are used to indicate the same parts throughout the several views.

The improvements herein set forth are adapted to operate either a single or a double semaphore. The single semaphore is shown with two spectacles 1 and one blade 2. The double semaphore is shown with two spectacles 3 and 4 and two blades 5 and 6. The spectacles 1 are rigid with a shaft 7. The spectacle 4 is rigid with a shaft 8. The spectacle 3 is rigid with a sleeve 9 which is loosely mounted on the shaft 8. The spectacles 3 and 4 carry the blades 5 and 6 respectively. The gear-

ing for operating the semaphore spectacles and blades is mounted in a housing consisting of the tubular support 10 and a cap 11 therefor. The cap 11 has one side 12 of the lower part projecting lower than the other side and the cap is secured to the support 10 by U-bolts 13. The spectacle 3 is operated by the two cables 14 and 15. One cable turns the semaphore to danger and the other clears the semaphore. The spectacle 4 is operated by cables 16 and 17. Cables 16 and 17 run over a grooved pulley 18 and under grooved pulleys or rollers 19. The cables 14 to 17 inclusive run over idlers 20 so that these cables will be brought to the central part of the housing. Cables 14 and 15 operate by means of a pulley 21 which is rigid with the sleeve 9. Shaft 8 and the sleeve 9 are journaled in the cap 11. A hood 22 is provided for protecting the rollers 19 from the weather. The cables run through a slot in the lower side of the hood so that water will not run into the hood and the support 10.

A lantern bracket 23 is mounted on the cap 11 and provided with antifriction pulleys 24. Lanterns 25 are hung on the pulleys 24 by means of cables 26 which run over the pulleys 24 and under the antifriction pulleys 26 which are mounted in arms 27 which are bolted to the support 10. The lanterns may be elevated to the desired location behind the spectacles whenever necessary. Guides to hold the bull's eyes of the lanterns in proper alinement with the spectacles are provided and these guides consist of cables 28 which are attached to the arms 27 and to the bracket 23. The lanterns have perforated lugs 29 through which the cables 28 move loosely. Means are provided for locking the lanterns in elevated positions. Perforated lugs 30 are formed on the arms 27 and clips 31 are attached to the cables 28. When the lanterns are elevated the clips 31 are down so that they can be locked to the lugs 30. Ladders 32 are attached to the tubular support 10 for convenience in going to the top of the semaphore tower, the cap 11 and the support 10 constituting the tower.

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

1. A semaphore having a tubular tower, a tubular cap secured to said tower, a shaft mounted in said cap and journaled in one

side of said cap and projecting therefrom, a spectacle and a blade carried by said shaft, a sleeve journaled in the other side of said cap and forming a bearing for said shaft, a blade and a spectacle carried by said sleeve, gearing for operating said shaft and sleeve housed within said cap and tower, a lantern bracket carried by said cap, and lanterns carried by said bracket for co-
operating with said spectacles.

2. A semaphore having a tower, a cap engaging said tower, a shaft journaled in said cap, a lantern bracket mounted on said cap and projecting from opposite sides thereof, a spectacle fixed on one end of said shaft and a pulley fixed on said shaft within said cap for operating said spectacle, a

vertically movable lantern suspended from said bracket and coöperating with said spectacle, a sleeve loosely mounted on the other end of said shaft and projecting within said cap, a spectacle fixed on said sleeve and a pulley fixed on said sleeve within said cap for operating said spectacle, and a vertically movable lantern suspended from said bracket and coöperating with said last mentioned spectacle.

In testimony whereof, I set my hand in the presence of two witnesses, this 22nd day of October, 1908.

LUTHER H. VAN ZANDT.

Witnesses:

JNO. C. FANNING,
A. L. JACKSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."