T. M. FISH & O. MILLER.

RAILWAY SIGNAL.

No. 180,017. Patented July 18, 1876.

Fig. 1.

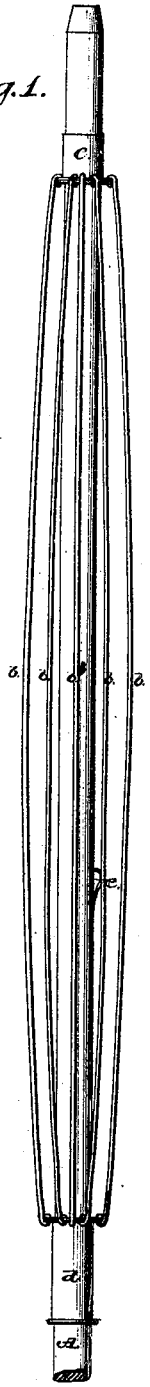


Fig. 2.

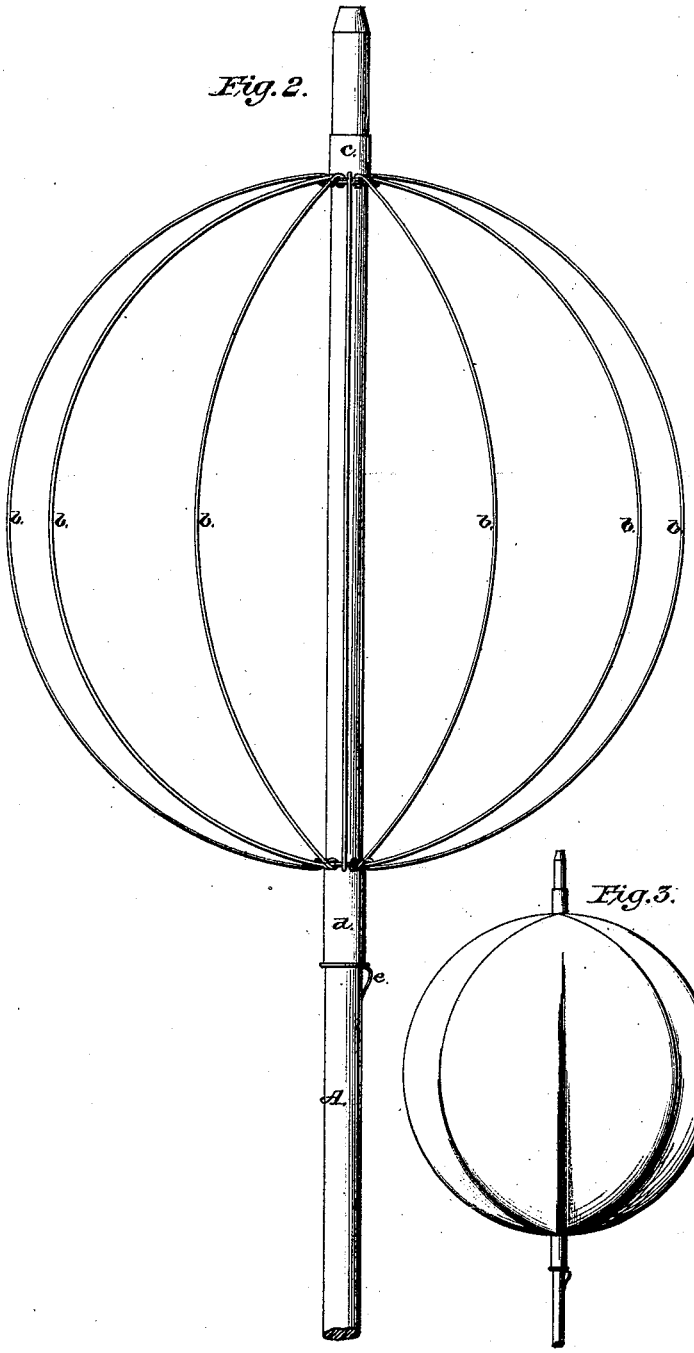
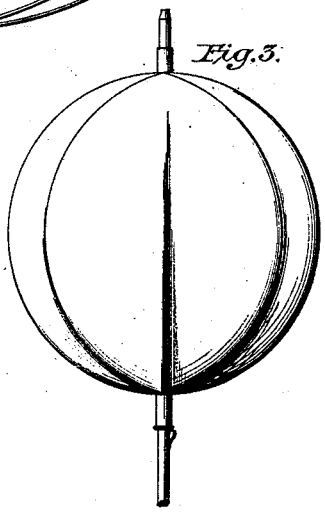


Fig. 3.



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UNITED STATES PATENT OFFICE.

THOMAS M. FISH AND OTTO MILLER, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN RAILWAY-SIGNALS.

Specification forming part of Letters Patent No. **180,017**, dated July 18, 1876; application filed June 16, 1875.

To all whom it may concern:

Be it known that we, THOMAS M. FISH and OTTO MILLER, of Chicago, Cook county, Illinois, have invented an Improvement in Railway-Signals, of which the following is a specification:

Our invention relates to that class of signals used by railway companies on locomotives at railway-stations, and upon railway-tracks, to signal trains of cars.

The object of our invention is to produce a signal that can be seen under any condition of the wind, and that is not affected by rain.

With the flag-signal now in use, if the wind is blowing directly ahead or in line with the track, the full side of the flag cannot be seen; also, if the flag is saturated with water by rain, it hangs down so that it is not readily seen, so that, in either condition, it is comparatively ineffective; whereas, our improved signal, being spherical, cannot be affected by wind or rain in the manner above mentioned.

We make our signal spherical by connecting several narrow metallic strips or pieces of wire with a stationary or fixed collar, attached to the upper end or top of a staff, while the other ends of strips or wire are attached to a movable or sliding collar, which, moving up on the staff and fastening at a certain point by a spring-catch, produces a spherical frame, which is covered with a red or other-colored cloth, or other material suitable for the purpose.

By this mode of construction it can be readily folded, so that it can be carried in a tin or other case when not in use.

In the accompanying drawing, Figure 1 represents the frame closed. A is the staff; *b b b b b*, the metallic strips or wire; *c*, the fixed collar at the top of the staff; *d*, the sliding or movable collar, and *e* the spring-catch.

Fig. 2 shows the frame open, spherical in form, the same letters representing like parts as in Fig. 1. Fig. 3 shows the signal complete, with the covering.

Our invention is intended as a day-signal only, and is not intended as a signal-light, but to be used as a substitute for the common flags now used on railroads, and after being attached to the staff is stationary therewith.

Having thus described our invention, we claim—

A hand railroad-signal, consisting of the staff A, the collar *c*, rigidly attached thereto near the top, the series of spring-rods *b*, covered with a colored cloth attached to the collar *c* and to the movable collar *d* at the bottom, and the spring-catch *e* on the staff, all constructed and used substantially as set forth.

THOMAS M. FISH.
OTTO MILLER.

Witnesses:
J. M. SOUTHARD,
WM. E. SMITH.