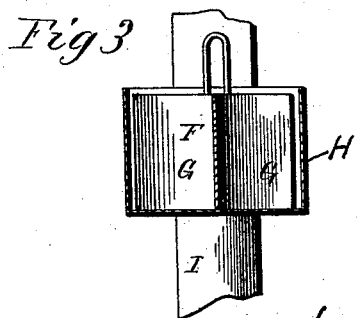
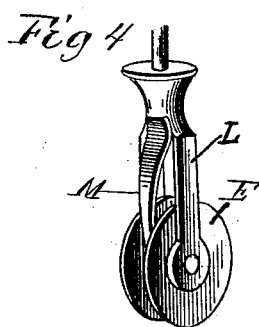
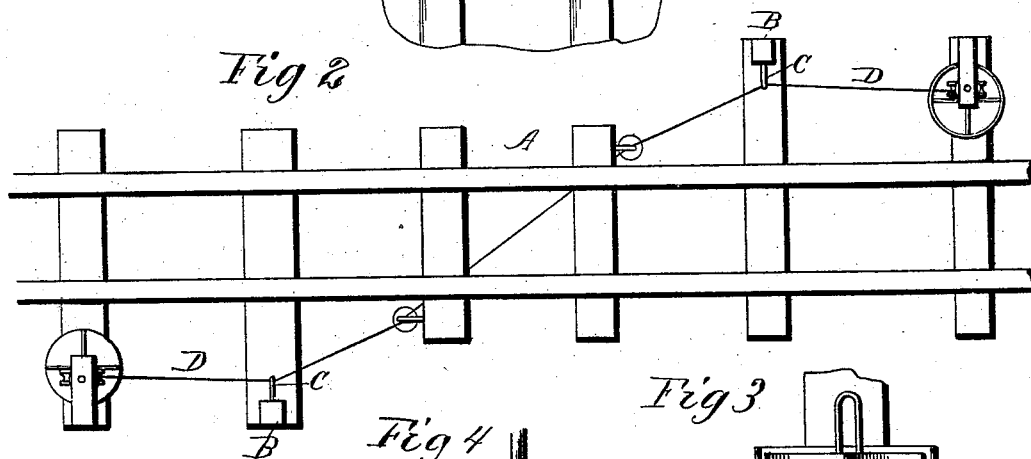
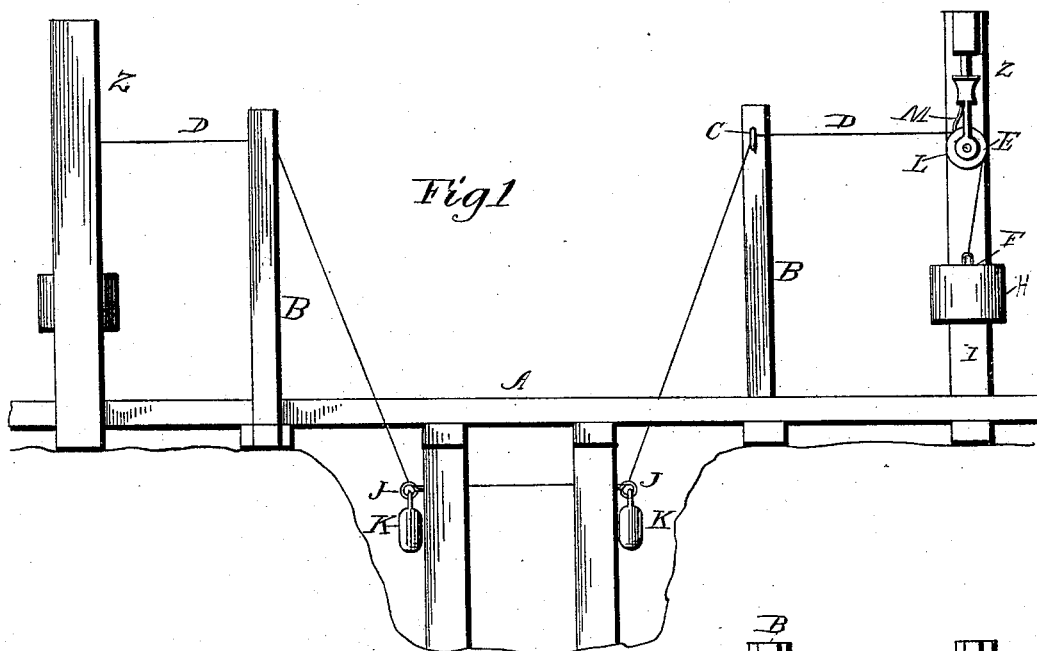


(No Model.)

W. A. KAY.  
SIGNAL.

No. 425,613.

Patented Apr. 15, 1890.



Witnesses  
C. C. Burdine  
Mays Vike.

William A. Kay  
Inventor

By his Attorney  
W. S. F. F. F.

# UNITED STATES PATENT OFFICE.

WILLIAM A. KAY, OF HONEA PATH, SOUTH CAROLINA.

## SIGNAL.

SPECIFICATION forming part of Letters Patent No. 425,613, dated April 15, 1890.

Application filed December 10, 1889. Serial No. 333,216. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM A. KAY, a citizen of the United States, residing at Honea Path, in the county of Anderson and State of South Carolina, have invented certain new and useful Improvements in Signals; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in signals for railroad-bridges; and it consists in certain novel features hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side view of a bridge provided with my improved signal. Fig. 2 is a plan view of the same. Fig. 3 is an enlarged detail section of the signal and the signal-casing, and Fig. 4 is a detailed perspective view of one of the pulleys.

The bridge A may be of any desired construction and forms a part of the railroad, as will be readily understood. Along the sides of the railroad and extending a suitable distance from each end of the bridge, I erect a series of posts B, to the upper ends of which I secure the eyes or rings C, through which a wire D passes. At the upper ends of the end posts Z, I secure the pulleys E, over which the wire passes and from which the ends of the wire depend. To the ends of the wire, I secure the signals F, which may be of any suitable design, but are preferably composed of the strips G, secured together at an angle to each other and of a proper size to attract attention when displayed. These signals are normally inclosed by the casing H, which is supported on the upper end of a suitable bench or post I, as clearly shown. The central portion of the wire D passes through rings or eyes J on the bridge, and heavy weights K are hung in the said eyes. The pulleys E, over which the wire D passes, are hung in the blocks L, and springs M are secured to the said blocks and fit in the grooves of the pulleys, so as to bear on the wire and hold the same within the said grooves, and thus prevent backward movement of the wire.

In practice the several parts of the device are arranged as shown in the drawings and above described. Should the bridge be burned or washed away, the wire will be drawn upon, so as to raise and display the signal, and thereby warn the engineers of approaching trains of the accident. When the bridge is washed away, it will itself carry the wires out of their normal position, so as to raise the signals, and when the bridge is burned the rings J, being of metal, will separate from the wood and the weights K consequently remain unsupported except by the said rings, and as the only support that these rings have is the wire, the weights will at once draw upon the wire, so as to raise the signals. The springs L are arranged so that the wire may slip readily thereunder when raising the signal, but any backward movement of the wire after the signal is raised will be prevented, so that the signals will be held in their elevated positions.

My improved signal is very simple in its construction and can be manufactured at a slight cost. It is entirely automatic in its operation and provides an effectual safeguard against the running of trains to such a point that they cannot be stopped before they reach the end of the road.

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

The improved signal herein described and shown, consisting of a series of posts arranged at opposite ends of a bridge, casings near the end posts of said series, rings on the bridge, the wire or cable passing through said rings and over pulleys on the posts, the display-signals attached to the ends of the cable or wire, and weights hung in the rings on the bridge, whereby the signals are normally lowered and received within the casings and will be automatically raised and displayed if the bridge be destroyed, as specified.

In testimony whereof I affix my signature in presence of two witnesses.

WM. A. KAY.

Witnesses:

T. R. FINLEY,  
T. J. CLATWORTHY.