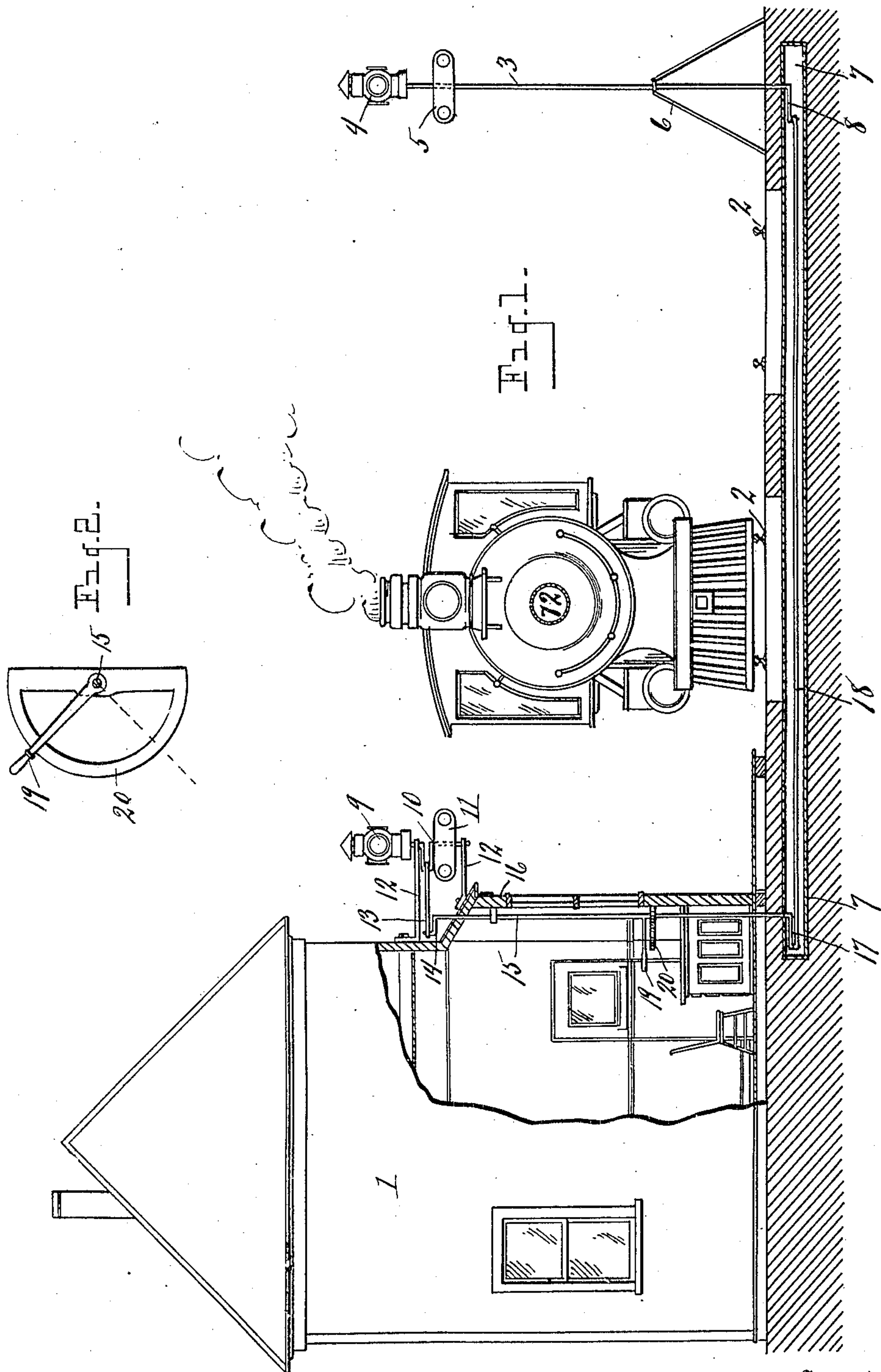


No. 843,175.

PATENTED FEB. 5, 1907.

W. C. REYNOLDS.
TRAIN ORDER SIGNAL.
APPLICATION FILED APR. 17, 1905.



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM C. REYNOLDS, OF ALPENA, MICHIGAN.

TRAIN-ORDER SIGNAL.

No. 843,175.

Specification of Letters Patent.

Patented Feb. 5, 1907.

Application filed April 17, 1905. Serial No. 255,949.

To all whom it may concern:

Be it known that I, WILLIAM C. REYNOLDS, a citizen of the United States, residing at Alpena, in the county of Alpena, State of Michigan, have invented certain new and useful Improvements in Train-Order Signals; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to a duplex train-order signal, and consists in the construction and arrangement of parts hereinafter fully set forth, and pointed out particularly in the claims.

The object of the invention is to provide simple and efficient means for showing a signal on each side of the track, said signals being connected to operate in unison and actuated concurrently by means controlled by the operator, whereby both signals may be simultaneously displayed from the operator's office.

The above object is attained by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a general view showing the application of my invention, the tracks and conduit crossing below the tracks appearing in section and a part of the office or station of the operator being broken away. Fig. 2 is a detail of a quadrant in connection with which the operating-lever is used.

Referring to the characters of reference, 1 designates the operator's office or station, and 2 the tracks, of which two are shown herein, illustrating the application of my invention to a double-track as well as to a single-track road. Standing vertically near the outer track is a rotary standard 3, carrying at its upper end the usual lamp-signal 4 and below said lamp the usual board-signal 5 for use in the day-time. Said standard is supported by suitable braces 6, and the lower end thereof, which extends into a conduit 7, located below the surface and crossing under the track, is provided with a crank-arm 8. The signal on the opposite side of the track

consists of the lamp 9, mounted upon a crank-rod 10, and the board-signal 11, also attached to said crank-rod, which is suitably supported in the brackets 12. Journaled on said crank-rod at one end is a connecting-rod 13, the other end of which is pivoted to a crank-arm 14 on the upper end of the rotary standard 15, which passes through the roof of an extension of the office and at its lower end extends into the conduit 7, carrying at said lower end a crank-arm 17, which is coupled to one end of the connecting-rod 18, that passes through said conduit, the opposite end of said rod being connected with the crank 8 on the standard 3.

Upon the rotary standard 15 is mounted an operating-lever 19, which projects laterally therefrom and swings over a quadrant 20, which indicates the position of the signal lamps and boards according to the position of said lever, as clearly shown in Fig. 2.

By means of this arrangement the operator may set his signals to indicate train-orders or show a clear board from his station within the office through the means of the lever 19, displaying the signal on both sides of the track, and thereby obviating the liability of the signal not being seen by the engineer.

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

1. In a train-order signal, the combination of the rotary standards on opposite sides of a track in directly-opposed relation, the lamps and boards connected with said standards to turn therewith, means extending across the track connecting said standards to cause them to operate in unison, and a lever connected with the standard-operating means for operating said standards simultaneously.

2. In a train-order signal, the combination of the rotary standards on opposite sides of the track, the lamps and boards connected with said standards to rotate therewith, crank-arms upon the lower ends of said standards, a conduit extending under said track and receiving said crank-arms, a connecting-rod in the conduit attached to said crank-arms at its opposite ends, one of the standards passing vertically through the office of the operator, and a lever thereon for rotating

said standards and actuating the signals simultaneously.

3. In a train-order signal, the combination with a single track, of the mechanically-actuated signals on opposite sides of said track, means connected with said signals for actuating them, and a connecting-rod crossing the track and attached to the signal-actuat-

ing means of said signals for causing them to move in unison and show the same color. 10

In testimony whereof I sign this specification in the presence of two witnesses.

WILLIAM C. REYNOLDS.

Witnesses:

D. A. CAMPBELL,
CHAS. W. McLEAN.