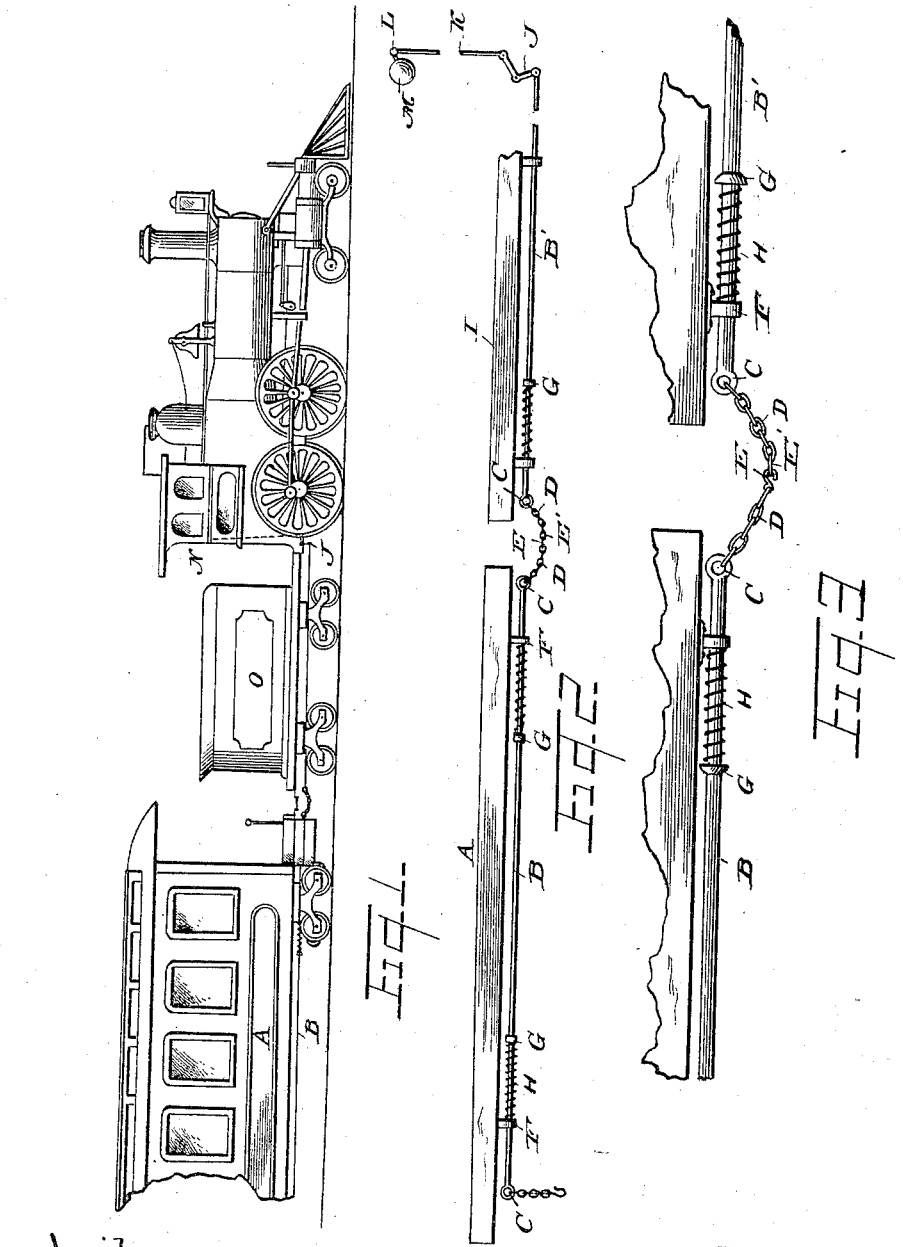
(No Model.)

J. J. DISE.

SIGNALING DEVICE FOR RAILWAY TRAINS.

No. 584,333. Patented June 15, 1897.



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UNITED STATES PATENT OFFICE.

JEROME J. DISE, OF MANSFIELD, OHIO.

SIGNALING DEVICE FOR RAILWAY-TRAINS.

SPECIFICATION forming part of Letters Patent No. 584,333, dated June 15, 1897.

Application filed November 17, 1896. Serial No. 612,442. (No model.)

To all whom it may concern:

Be it known that I, JEROME J. DISE, a citizen of the United States, residing at Mansfield, in the county of Richland and State of Ohio, have invented certain new and useful Improvements in Safety Attachments for Railway-Trains; 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 of reference marked thereon, which form a part of this specification.

My invention relates to improvements in safety attachments for railway-trains; and the objects of my invention are, first, to provide a means for signaling at each end of the train should the cars become detached when in motion, which sometimes happens and causes accidents; second, to make a cheap, durable, and efficient means for the purpose stated.

In the accompanying drawings, Figure 1 is a side elevation of an engine and car equipped with my safety attachment. Fig. 2 is a side view showing more fully my attachment and mode of signaling in the engine-cab. Fig. 3 is an enlarged view showing the operating-rod, spring, and chain connections to show more fully the construction and operation of the invention.

Similar letters of reference indicate the several parts throughout the several views.

In the accompanying drawings, A indicates the platform of a car or engine-tender.

B is a small metal rod running longitudinally the full length of the car. The said rod is provided with an eye C upon each end. The object of the eyes is for the purpose of securing one end of a suitable chain D. Each chain is provided with the hook E, for the purpose of connecting the chains together after the cars are coupled. The rods B are supported in metal bearings F, secured upon the under side of the platform. G indicates a collar secured upon the rod B and placed a suitable distance from the bracket F to admit of a coil-spring H, the said spring having a bearing against the collar G and bracket F. Both ends of the cars are provided alike, as shown in Fig. 2. The rod B′ passes under the engine-tender O and is provided with a collar, spring, and chain at one end, the rear end, of the tender O. The front end is connected to the bell-crank J, secured in any suitable place upon the under side of the engine-cab N. A suitable connection K is secured to the bell-crank, the upper end being connected to a lever L to operate a suitable gong or bell M, placed within the interior of the engine-cab. A gong can be placed in the rear car of any train, either freight or passenger. Each car is connected together by the chains, as shown in Fig. 3.

It will be readily seen by those skilled in the art that when all the cars are connected together, as shown, should a car become detached when in motion, from the breaking of a coupling or any other cause, the chain connections D and D′ being connected together by the hooks E and E′, a tension will be caused upon the chains at the point where the cars become detached, drawing upon the rods B, operating the bell-crank J, giving a signal at both ends of the train by ringing the gongs M. The hooks E and E′, being made of smaller wire than the chain, will break when the cars separate, but must be of sufficient strength to operate the signals before breaking.

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

1. A safety attachment for railway-trains, consisting of metal rods, provided upon each end with eyes, a chain connected to the said eyes, and a hook secured to the end of each chain, the rods secured in any suitable position, and by any suitable means upon the under side of the cars, the chains adapted to form a continuous connection from the engine to the rear car a gong or bell placed within the engine-cab and adapted to be operated by a pull on the continuous connection of the rod should any portion of the train become detached when in motion substantially as shown and described.

2. A safety attachment for railway-trains consisting of metal rods, secured in suitable bearings upon the under side of each car and engine-tender, the said rods connected together by chains and hooks, secured in eyes

formed in each end of the rod, collars secured upon the rod a suitable distance from each end, coil-springs surrounding the rods having end bearings against the collars and supports to hold the rods in a normal position, the rods and chains forming a continuous connection from the engine to the rear car, the said rods adapted to operate a gong or bell in the engine-cab, and the last car, substantially as shown and described.

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

JEROME J. DISE.

Witnesses:
H. M. ARMSTRONG,
LEWIS MCCRAY.