No. 736,361. PATENTED AUG. 18, 1903.

A. U. CAMPBELL.

DEVICE FOR DELIVERING MESSAGES TO MOVING TRAINS.

APPLICATION FILED DEC. 6, 1902.

NO MODEL.

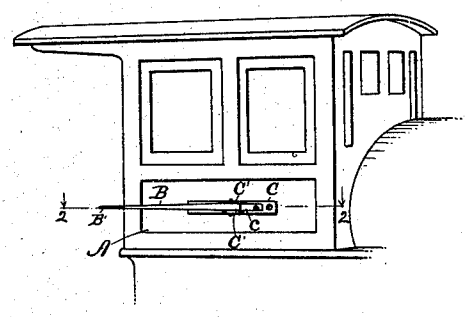


Fig. 1

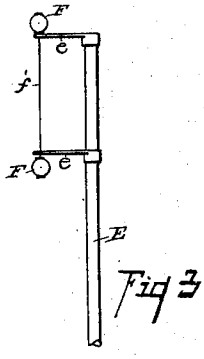


Fig. 3

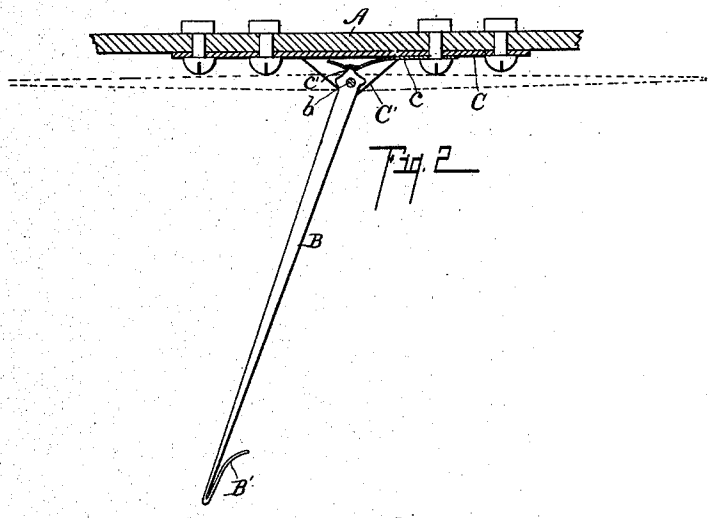


Fig. 2

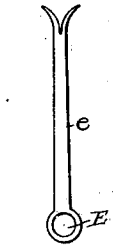


Fig. 4

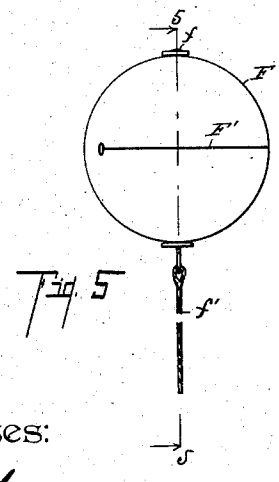


Fig. 5

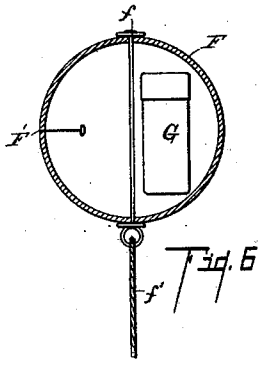


Fig. 6

Witnesses:

Ethel A. Fuller

Otis A. Earl

Inventor,

Archibald U. Campbell

By Fred L. Chappell

Att'y.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 736,361. Patented August 18, 1903.

UNITED STATES PATENT OFFICE.

ARCHIBALD U. CAMPBELL, OF KALAMAZOO, MICHIGAN.

DEVICE FOR DELIVERING MESSAGES TO MOVING TRAINS.

SPECIFICATION forming part of Letters Patent No. 736,361, dated August 18, 1903.

Application filed December 6, 1902. Serial No. 134,213. (No model.)

To all whom it may concern:

Be it known that I, ARCHIBALD U. CAMPBELL, a citizen of the United States, residing at the city of Kalamazoo, in the county of Kalamazoo and State of Michigan, have invented certain new and useful Improvements in Devices for Delivering Messages to Moving Trains, of which the following is a specification.

This invention relates to improvements in devices and means for delivering orders or messages to moving trains.

The objects of this invention are, first, to provide an improved means for delivering messages or the like to moving trains which is simple to operate and positive in its action; second, to provide an improved means for delivering messages to moving trains which may be successfully operated without danger or liability of injury to the operators; third, to provide an improved means for delivering messages to moving trains which is inconspicuous in use, is enconomical to produce, and not liable to get out of repair.

Further and minor objects will definitely appear in the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification.

The invention is clearly defined and pointed out in the claims.

A structure embodying the features of my invention is fully illustrated in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a detail perspective view of an engine-cab, showing the receiving portion of my device in position thereon. Fig. 2 is an enlarged detail sectional view taken on line 2 2 of Fig. 1. Fig. 3 is a detail elevation view of the delivery device E, the message-receptacles F being illustrated in position for delivery on the same. Fig. 4 is an enlarged plan view of one of the arms *e* of the delivery device E. Fig. 5 is an enlarged elevation view of one of the message-receptacles F. Fig. 6 is a detail sectional view taken on line 6 6 of Fig. 5.

In the drawings similar letters of reference refer to similar parts throughout the several views.

The sectional views are taken looking in the direction of the little arrows at the ends of the section-lines.

Referring to the drawings, the engine-cab A is illustrated in conventional form. The arm B, having a hook B′ at its outer end, is pivotally mounted at *b* on the bracket or base-plate C. The spring *c* is arranged to bear on the inner end of the lever B to hold it in its adjusted position. The inner end of the lever B is formed with projections to engage a seat *c′*, formed in the spring, so that the lever is yieldingly held in the extended or operative position or in the forward or backward position, as is indicated by dotted lines in Fig. 2.

The base-plate C is preferably formed of heavy sheet metal, turned up at its sides to form ears C′, which are perforated to receive the pivot-pin *b* of the lever. The plate is secured to the side of the cab of the engine just below the windows, so that it is in convenient reach of the fireman or other operator.

The delivery device E may be held by the operator or may be set up in proper position beside the track. It consists of a pole or standard on the upper end of which are the laterally-projecting arms *e*, with forked or V-shaped ends, adapted to receive the cord *f′* of the receptacles F. The message-receptacles F are preferably formed of hollow rubber balls, with openings or cross-slits F′, through which the message may be inserted or removed. Wires or rods *f* extend through the balls in a direction transverse to the slits F′. The projecting ends of these rods *f* are coiled to form a head to retain them in position. The cord *f′* is secured to the receptacles F by an eye in the end of each wire *f*. When thus arranged, any strain or pull on the cord tends to hold the opening F′ closed or tightens the same. The messages are preferably first inclosed in a cartridge or capsule G, (see Fig. 5,) as there is then no danger of any obliteration or tearing of the message in inserting or extracting the same from the receptacle F; also, messages for the engineer and the conductor can be delivered in separate receptacles and the conductor's message conveyed to him in its receptacle.

When the device is not in use, the arm B is folded forwardly against the side of the cab, as is indicated by the dotted lines in Fig. 2.

When it is desired to receive a message, the operator places the arm in the outward position, (shown in Fig. 2,) where it is retained by the spring *c*. This can be readily done by reaching through the cab-window. The messages are placed in the receptacles by the station agent or by the direction of the train-despatcher and placed in the forks of the arms *e* of the delivery device, which, as before stated, may be held by the person delivering the message or be set up in proper relation to the track, so that the hook B′ of the arm B will engage the cord *f′* and remove the same from the holder. The engagement of the arm with the cord is sufficient to throw the arm backward against the cab, where the messages are within reach of the operator. This is very convenient, but not an absolute essential. The hook B′ is so shaped as to engage the retaining-cord *f′*. It is found, however, that practically any form of engaging means is satisfactory, as the balls will, owing to the momentum, wind the cord about the hook, and thus secure themselves until disengaged by the operator.

It is apparent that the device can be quickly disengaged and one message delivered to the engineer and the other transferred to the conductor by any suitable means.

I have illustrated and described my improved device as arranged in connection with the engine; but it is apparent that it could be secured to other parts of the train. The engine is, however, preferred by me, as the operator (the brakeman) is always at hand.

I have illustrated and described my improved means for delivering orders and the like to moving trains in the form preferred by me on account of its simplicity in operation and economy of manufacture. I am aware, however, that it is capable of very great variation in structural details without departing from my invention, and I desire to claim the same broadly as well as specifically.

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

1. In a device of the class described, the combination of an arm B, pivotally secured to the cab of an engine, and having a forwardly-projecting hook B′ at its outer end; a spring *c* arranged to bear on the inner end of said arm to yieldingly retain it adjustably in position; receptacles F of rubber, having transverse slits F′ therein; retaining-rods *f* passed through said receptacles transversely to said slits; a cord attached to said retaining-rods for securing said receptacles together, and message-containing capsules G adapted to be inserted in said receptacles; and a delivery device consisting of a suitable standard; laterally-projecting arms *e* on said standard, said arms having forked ends, adapted to receive and detachably retain the connecting-cord of said receptacles, whereby it is supported in the path of the said arm B, all coacting for the purpose specified.

2. In a device of the class described, the combination of an arm B, pivotally secured to the cab of an engine, and having a forwardly-projecting hook B′ at its outer end; a spring *c* arranged to bear on the inner end of said arm to yieldingly retain it adjustably in position; receptacles F of rubber, having transverse slits F′ therein; retaining-rods *f* passed through said receptacles transversely to said slits; a cord attached to said retaining-rods for securing said receptacles together; and a delivery device consisting of a suitable standard; laterally-projecting arms *e* on said standard, said arms having forked ends, adapted to receive and detachably retain the connecting-cord of said receptacles, whereby it is supported in the path of the said arm B, all coacting for the purpose specified.

3. In a device of the class described, the combination of an arm B, pivotally secured to the cab of an engine, and having a forwardly-projecting hook B′ at its outer end; means for yieldingly retaining said arm in position; receptacles F of rubber, having transverse slits F′ therein; retaining-rods *f* passed through said receptacles transversely to said slits; a cord attached to said retaining-rods for securing said receptacles together; and a delivery device consisting of a suitable standard; laterally-projecting arms *e* on said standard, said arms having forked ends, adapted to receive and detachably retain the connecting-cord of said receptacles, whereby it is supported in the path of the said arm B, all coacting for the purpose specified.

4. In a device of the class described, the combination of an arm B, pivotally secured to the cab of an engine, and having a forwardly-projecting hook B′ at its outer end; means for yieldingly retaining said arm in its adjusted positions; spherical receptacles F of rubber having transverse slits F′ therein; retaining-rods *f* passed through said receptacles transversely to said slits; a cord attached to said retaining-rods for securing the said receptacles together; and a delivery device for supporting said cord in the path of said arm, for the purpose specified.

5. In a device of the class described, the combination of an arm pivotally secured to the cab of an engine, and having an engaging hook; means for yieldingly retaining said arm in its adjusted position; spherical receptacles F of rubber, having transverse slits therein; retaining-rods *f* passed through said receptacles transversely to said slits; a cord attached to said retaining-rods for securing said receptacles together; and a delivery device for supporting said cord in the path of said arm, for the purpose specified.

6. In a device of the class described, the combination of an engaging device carried by the cab of an engine; spherical receptacles F of rubber, having transverse slits F′ therein; retaining-rods *f* passed through said receptacles transversely to said slits; a cord attached to said retaining-rods for securing

said receptacles together; and a delivery device for holding the said cord in the path of said engaging device, for the purpose specified.

7. In a device of the class described, the combination of an engaging device, carried by the cab of an engine; a pair of suitable receptacles; a cord for securing said receptacles together; and a delivery device for supporting said cord in the path of said engaging device, for the purpose specified.

In witness whereof I have hereunto set my hand and seal in the presence of two witnesses.

ARCHIBALD U. CAMPBELL. [L. S.]

Witnesses:
ETHEL A. TELLER,
OTIS A. EARL.