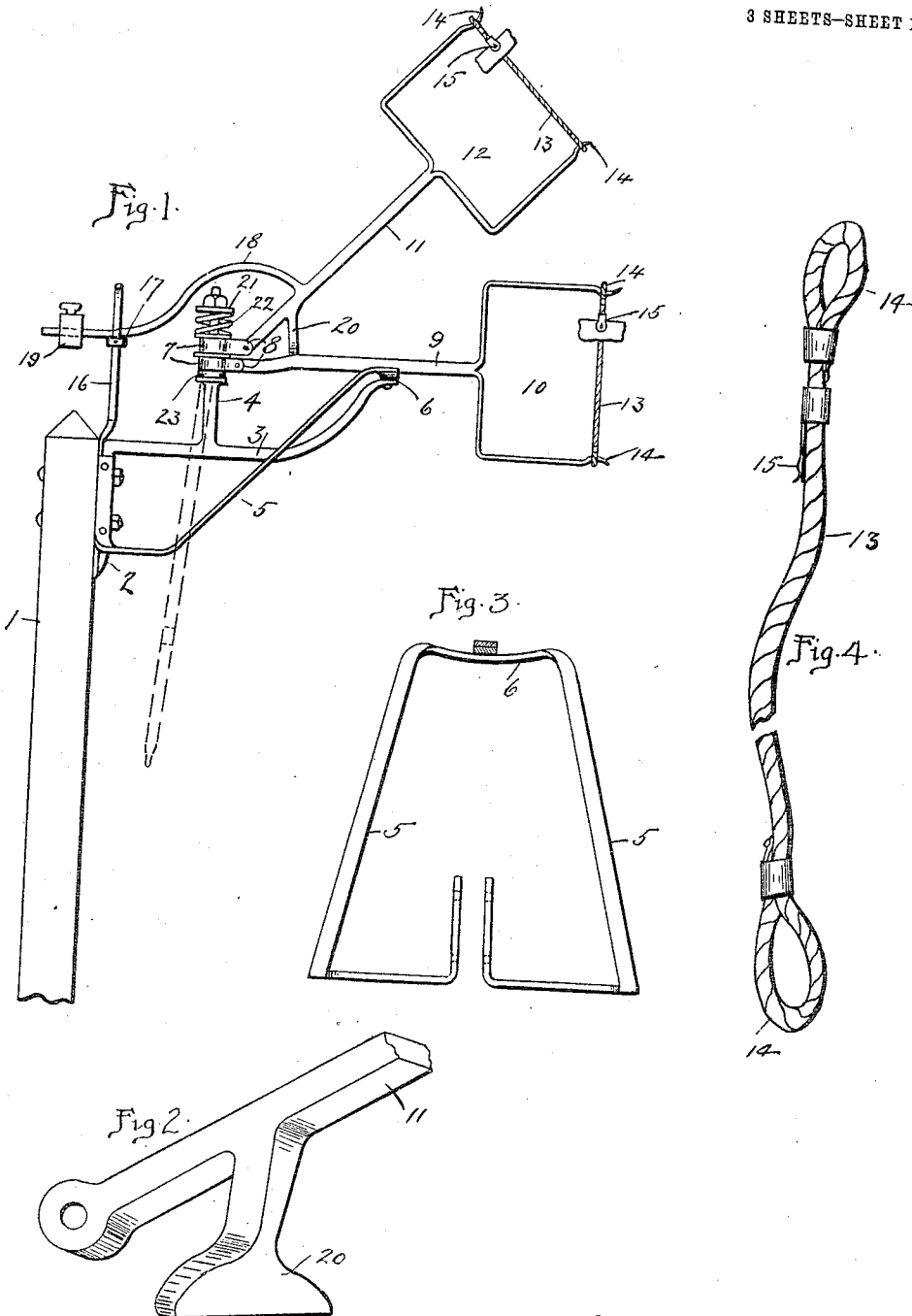


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 TRAIN ORDER DELIVERY APPARATUS.
 APPLICATION FILED OCT. 19, 1909.

971,004.

Patented Sept. 20, 1910.

3 SHEETS—SHEET 1.



WITNESSES

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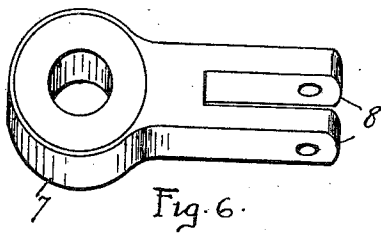


Fig. 6.

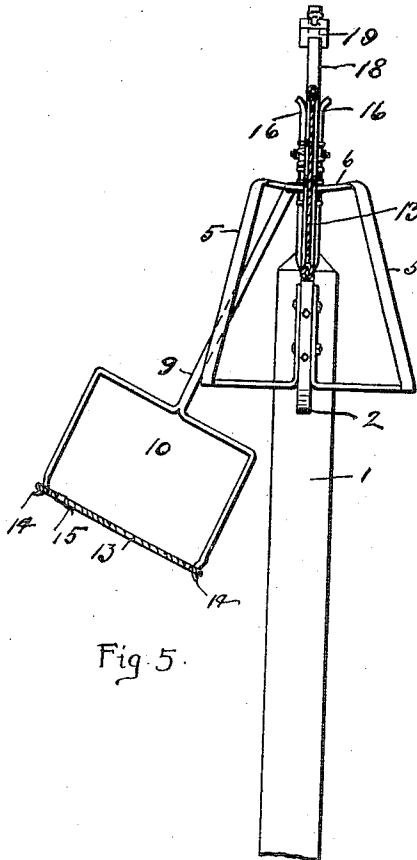


Fig. 5.

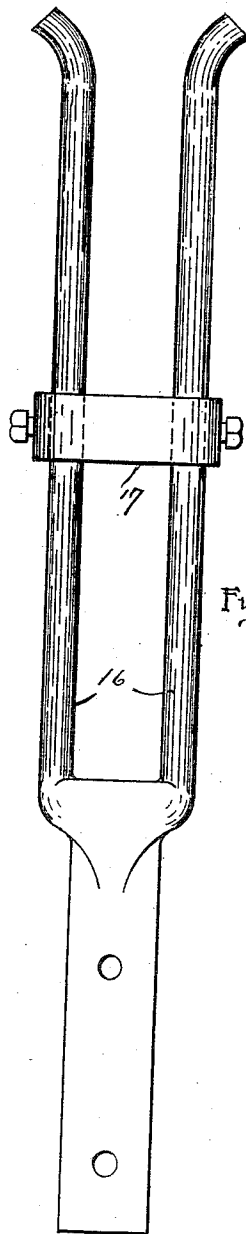


Fig. 7.

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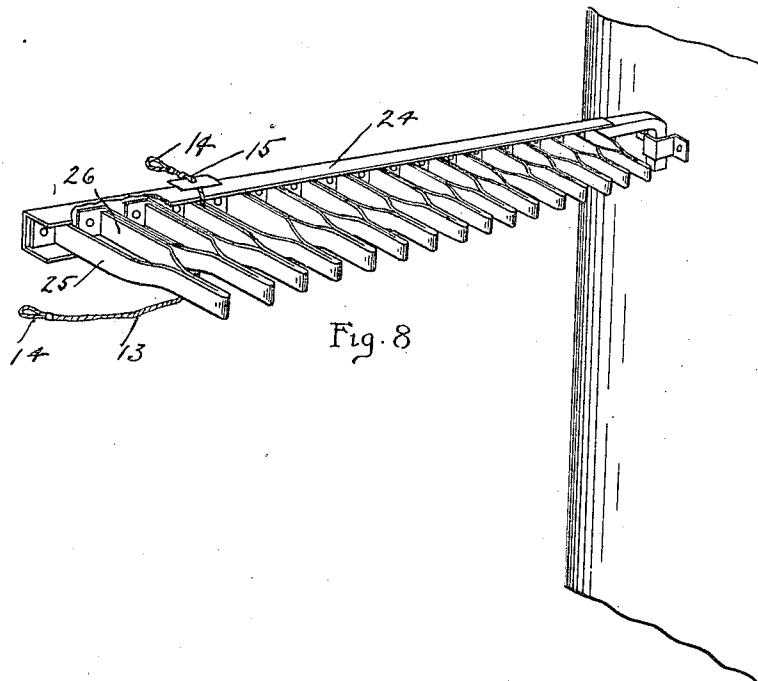


Fig. 8

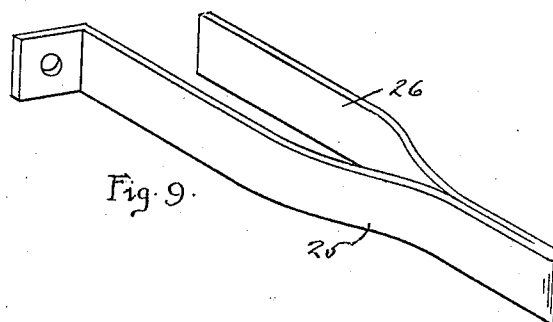


Fig. 9

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UNITED STATES PATENT OFFICE.

AUGUST HALVORSON, OF SPOKANE, WASHINGTON.

TRAIN-ORDER-DELIVERY APPARATUS.

971,004.

Specification of Letters Patent. Patented Sept. 20, 1910.

Application filed October 19, 1909. Serial No. 523,548.

To all whom it may concern:

Be it known that I, AUGUST HALVORSON, a citizen of the United States, residing at Spokane, in the county of Spokane, State of Washington, have invented a new and useful Train-Order-Delivery Apparatus, of which the following is a specification.

This invention relates to a device for delivering train orders to the engineer and conductor of a moving train, and a catcher attached to the said moving train, the delivery device being attached to a post firmly planted in the ground at a proper distance from the railway track.

The object of the invention is to enable the engineer and conductor to take their respective orders by means of some device or contrivance fastened to the engine, and a second device of a similar nature fastened to a car somewhere in the rear part of the train.

The invention is illustrated in the accompanying drawings forming a part of this specification, in which drawings,

Figure 1 is an elevation of the delivery device. Fig. 2 is a perspective view of the pivoted end of one of the delivery forks. Fig. 3 is an elevation of the device for holding the forks in horizontal position. Fig. 4 is a perspective view of the train order holder. Fig. 5 is a front elevation of the delivery device. Fig. 6 is a perspective view of the pivotal support of the forks. Fig. 7 is a front elevation of the fork guide. Fig. 8 is a perspective view of the catcher. Fig. 9 is a perspective view of one of the spring fingers of the catcher.

In the drawings, 1 denotes a post which is firmly planted in the ground a proper distance from the railway track. On the top of the post is mounted a bracket comprising a base 2, and a horizontal arm 3 extending therefrom, said arm terminating in an upward bend. From the arm 3 rises a vertical post 4.

Secured to the bracket base 2 are two arms 5 which extend outwardly, and are connected at their extremities by a horizontal portion 6 which is bolted or otherwise made fast to the outer end of the arm 3. The part 6 serves as a support for the forks to be presently described.

Loosely mounted on the post 4, so as to be free to turn thereon, are two sleeves 7

formed each with outstanding ears 8. The sleeves are superposed on the post, and between the ears of the lower one is pivotally secured the stem 9 of a fork 10. Between the ears of the upper sleeve is pivotally secured the stem 11 of a fork 12. The two forks 10 and 12 are provided for supporting the train order holding devices, each of said devices, comprising a rope 13 which is formed at its ends with eyes 14 through which the fork branches are passed, whereby the rope is held between said branches. The rope is loosely held by the fork, so that it may readily slip off the same. Intermediate its ends, the rope carries a suitable spring clasp 15 in which the train order is placed.

From the top of the post 1 rises a pair of spaced, vertical stems 16 carrying a stop block 17, the latter being adjustably mounted between the stems, and held in adjusted position by set screws, or other suitable means. Between the stems, above the block, works an arm 18 extending from the fork stem 11, said arm carrying an adjustable weight 19 at its outer end, which is for the purpose of counterbalancing the fork 19.

The lower fork 10 is supported in horizontal position on the part 6, and when in this position said fork also serves to hold the upper fork 12 in elevated position, said upper fork having a foot 20 on its stem which engages the stem 9 of the lower fork, as shown in Fig. 1. When the lower fork swings horizontally, the stem 9 is removed from under the foot, whereupon the upper fork is released, and it then swings downwardly into horizontal position, it coming to a rest on the part 6.

Between the upper sleeve 7, and an abutment 21 on the post 4, a spring 22 is coiled around the latter, for preventing the sleeves from turning too freely on the post. The lower sleeve is in engagement with an abutment 23 on the post.

The catcher comprises a channeled bar 24 carrying a series of spring fingers extending outwardly from the bar a suitable distance, on one side thereof. The bar is supported in horizontal position, and the fingers also extend horizontally. The fingers consist of spring strips which are bent intermediate their ends to form two branches 25 and 26, respectively. The branch 25 is riveted or otherwise securely fastened to the bar, in the

channel thereof, and the branch 26 is arranged so as to press against the branch 25 of the adjacent finger. The branches converge in the direction of their outer ends, and they are brought closely together for a short distance from said ends, thus forming flared spaces between the fingers.

The rope 13 carrying the train order is adapted to enter between a pair of the herein described spring fingers, and to be removed thereby from the fork, the rope being received between one of the branches 25, and the branch 26 of the adjacent finger, as shown in Fig. 8. The length of the bar 24 is such that a row of spring fingers may be employed so as to allow for the swaying of the train, and the variations of the distance between the side of the car and the delivery device, or any other circumstances making this a variable distance. The bar will be suitably supported so that it is readily accessible to be removed or swung out of the way when not in use.

One of the catches will be on the side of the locomotive, and another on the side of the last car, or on the caboose of the train, so that one order may be delivered to the engineer, and another to the conductor.

In operation, the two train orders to be delivered to the moving train are placed in the clasps 15, and ropes 13 are hung on the forks. The lower fork is swung around so that it engages the part 6, whereby it is held in horizontal position. The upper fork is held in elevated position by swinging it around so that the foot 20 rests on the stem of the lower fork. If now the catcher strikes the rope 13 held by the lower fork, it removes the same, and the impact also swings said fork horizontally off its support 6, whereupon it drops downwardly to one side, as shown by dotted lines in Fig. 1. As by this movement of the lower fork its stem is removed from under the foot 20, the upper fork is tripped, and it swings downwardly by gravity until it strikes the support, whereby it is held in horizontal position, it now being in the same position as the lower fork before it was swung from horizontal position. When the second catcher reaches the fork, the other train order is removed as before. The two train orders are delivered on the same level, and one is safely held out of the way while the other is being removed. The catchers will be placed on the same level so that they will properly pass between the two forks. The guide stems 16 cause the upper fork to swing up and down in the same vertical plane with the lower fork, so that the foot will always rest on the stem of the lower fork until the latter swings away as described.

The train order held by the lower fork is

removed by the catcher attached to the locomotive, and the other order is removed by the catcher on the last car or the caboose. The change in the position of the forks is so rapid that failure of the rear catcher to grasp the train order holding rope is impossible.

I claim:

1. A train order delivery apparatus comprising a horizontally and vertically swinging holder, a support for said holder from which the latter drops when swung horizontally, and a second vertically swinging holder mounted above the first holder, and supported thereby, said first holder, when dropping off its support, releasing the second holder, and the latter dropping on said support when thus released.

2. A train order delivery apparatus comprising a horizontally and vertically swinging fork, a second vertically swinging fork, a support for the first-mentioned fork from which it drops when swung horizontally, and a foot extending from the second fork, and resting on the first fork, said first fork, when swinging horizontally, being disengaged from the foot to release the second fork, and the latter dropping on said support when thus released.

3. A train order delivery apparatus comprising a horizontally and vertically swinging fork, a second vertically swinging fork, a support for the first mentioned fork from which it drops when swung horizontally, a foot extending from the second fork, and resting on the first fork, said first fork, when swinging horizontally, being disengaged from the foot to release the second fork, and the latter dropping on said support when thus released, an arm extending from the second fork, and a guide in which said arm works.

4. A train order delivery apparatus comprising a horizontally and vertically swinging fork, a second vertically swinging fork, a support for the first-mentioned fork from which it drops when swung horizontally, a foot extending from the second fork, and resting on the first fork, said first fork, when swinging horizontally, being disengaged from the foot to release the second fork, and the latter dropping on said support when thus released, an arm extending from the second fork, a guide in which said arm works, and a stop block between the guide, and engageable by the arm.

5. A train order delivery apparatus comprising an upright post, a fork, a sleeve mounted on the post, and carrying the fork, the latter being pivoted to the sleeve to swing in a vertical plane, and the sleeve being rotatably mounted on the post to permit the fork to swing horizontally, a support on which the fork rests, and from

which it drops when swung horizontally,
and a second vertically swinging fork car-
ried by the post above the first-mentioned
fork, and supported thereby, said first fork,
5 when dropping off its support, releasing the
second fork, and the latter dropping on
said support when thus released.

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

AUGUST HALVORSON.

Witnesses:

JAMES W. MERAGER,
ANNIE MERAGER.