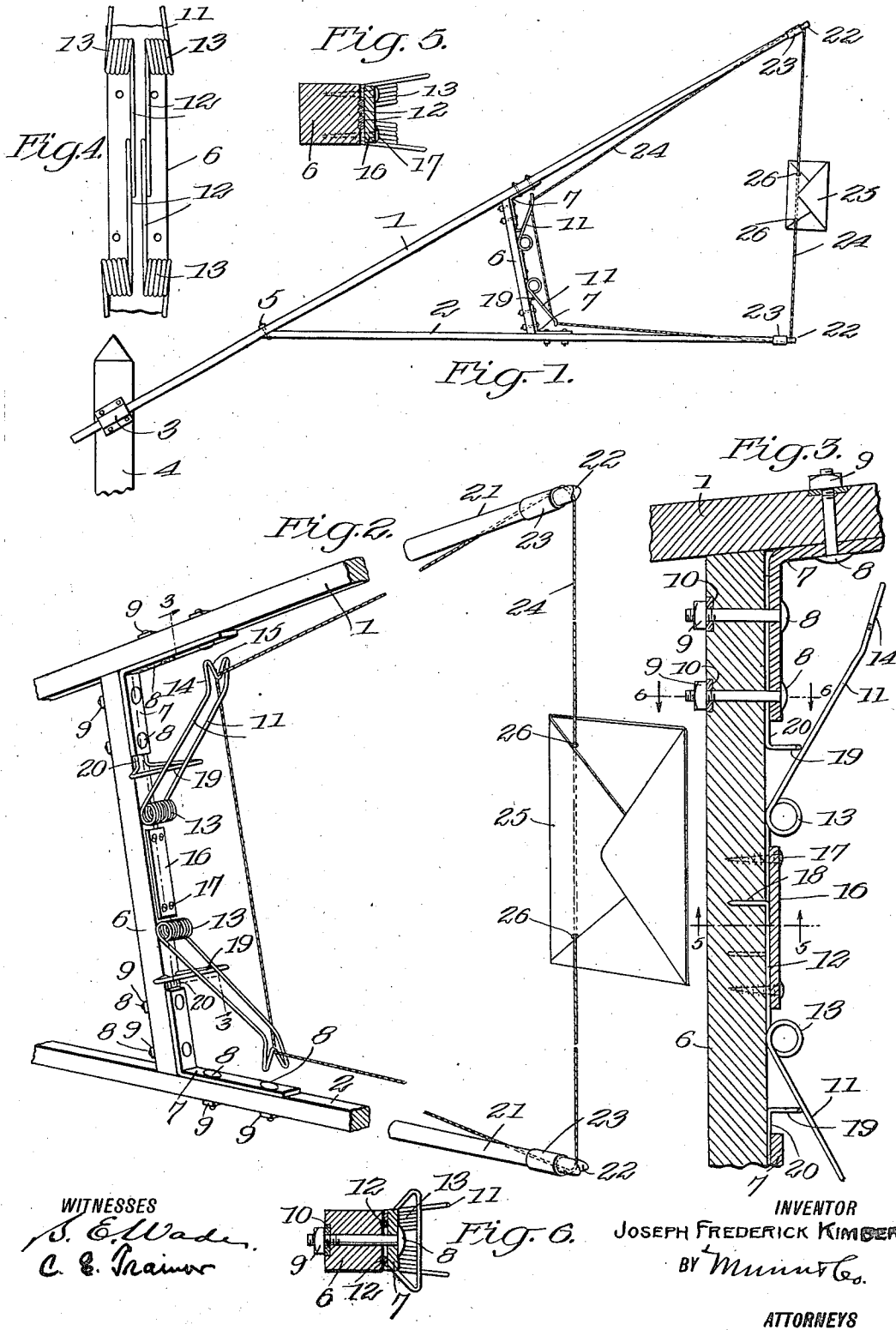


J. F. KIMBER.
 APPLIANCE FOR CONTROLLING MOVING TRAINS.
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APPLIANCE FOR CONTROLLING MOVING TRAINS.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOSEPH FREDERICK KIMBER, a citizen of the United States, and a resident of Apple Creek, in the county of Wayne, State of Ohio, have invented a new and useful Improvement in Appliances for Controlling Moving Trains, of which the following is a specification.

My invention is an improvement in appliance for controlling moving trains, and has for its object the provision of a simple, inexpensive device of the character specified, by means of which a letter, telegram, or order may be held in position to be caught by a trainman on a moving train, wherein the inclosure will be so held that there will be no possibility of failure on the part of the trainman to locate the inclosure by day or by night, and which will release the inclosure as soon as traction is made thereon.

In the drawings: Figure 1 is a front elevation of the improvement; Fig. 2 is an enlarged detail view of a portion of Fig. 1; Fig. 3 is an enlarged section taken on the line 3—3 of Fig. 2; Fig. 4 is a front view of the holding springs; and Figs. 5 and 6 are sections on the lines 5—5 and 6—6, respectively, of Fig. 3.

The present embodiment of the invention comprises a pair of bars 1 and 2 of some suitable light material, yet with sufficient strength to stand a considerable strain, one of which, the bar 1, is of greater length than the other bar 2, and the said bars are secured together in such manner that they form an angle of between 30° and 45° with respect to each other.

The bar 1 has one of its ends held in a bearing sleeve 3 on a suitable post or other support 4, and the bearing sleeve is arranged at an angle to the bar, such that the bar 2 is approximately horizontal. The inner end of the bar 2 is beveled, as shown in Fig. 1, and the said end is secured to one face of the bar 1 by means of a bolt 5.

A brace or cross bar 6 is arranged between the bars at approximately the center of the bar 2, the ends of the bar 6 being beveled to fit the adjacent faces of the bars 1 and 2. The cross bar is secured to the bars 1 and 2 by means of angle plates 7, one of the plates being arranged at each end of the cross bar with one of its arms lapping on the cross bar and the other arm lapping on the inner face of the adjacent bar 1 or 2.

Bolts 8 are passed through registering

openings in the arms and in the cross bar and bars 1 and 2, and the said bolts are engaged by nuts 9 to hold them in place. The bolts are arranged with their heads bearing against the plates 7, and a washer 10 is arranged between each nut and the face of the adjacent bar.

A spring arm is connected with the cross bar on each side of its center, and each spring is composed of two members 11 and 12 arranged at an angle to each other and connected by a coil 13. The spring arms in the present instance are composed of wire, the wire being first doubled upon itself in spaced relation to form one of the arms, then bent to form the coil, and the ends of the wire are then extended alongside each other in spaced relation to form the other arm.

The free or outer end of each arm 11 of each spring is bent laterally, as shown at 14 in Figs. 1, 2 and 3, and the body of the wire is bent inward to form a recess or depression 15. The arms 12 of the springs are held against the face of the cross bar by means of a plate 16, which rests upon the arms 11 and is secured to the cross bar by screws 17.

The extremities of the wires forming the springs are bent laterally, as shown at 18 in Fig. 3, and are embedded in the cross bar so that the spring cannot move longitudinally from beneath the plate. A stop 19 is provided near each end of the cross bar for engagement by the arm 11 of the adjacent spring to limit the movement of the arm toward the bar.

Each stop consists of an open loop of wire, the ends 20 of which are bent at a right angle to the body and are held beneath the adjacent portion of the adjacent angle plate 7. The coils 13 of the springs tend to press the arms 11 toward the cross bar, and normally, that is, when the device is not in use, each arm 11 rests upon the adjacent stop.

The bars 1 and 2 are rounded over a portion of their length at their free ends, as shown at 21, and the said end of each bar is notched or grooved transversely, as shown at 22. A sleeve 23 is also fitted over the rounded end of each bar adjacent to the notch or groove. A cord 24 is supported by the arms 11 and bars 1 and 2, and is held in place by the notches 22, and the recesses or depressions 15.

The cord is endless, and a portion thereof

is extended between the free ends of the arms 1 and 2. The arrangement of the cord is clearly shown in Fig. 2, and the inclosure 25 to be delivered is held on the said portion of the cords between the free ends of the arms. Transverse openings 26 are provided in the inclosure near each end thereof, and the cord is passed through the openings

In operation, the inclosure with the cord in place is supported as shown in Figs. 1 and 2, the cord being held in a substantially rectangular form and in extended and taut condition, with the inclosure at about equal distances from the bars 1 and 2. The post or standard 4 is arranged at a suitable point near the track, so that the inclosure, when in place, will be in convenient reaching distance from the moving train. As the train passes, the trainman catches the inclosure and holds it, pulling both inclosure and cord from the device. The cord slips easily from the notches 22, and the spring arms 11 will be drawn by the cord toward each other, thus positively releasing the cord. At night a white lantern should be placed on the same side of the device as the direction from which the train will arrive, at about the level of the spring arms.

The device as a whole is extremely simple and inexpensive, and will require but little repairs or attention of any kind.

When not in use, the device may be detached from the post and stored under shelter.

The bars 1 and 2 are so nearly parallel that there is ample room for the hand of the trainman to grasp the cord without possibility of injury. The provision of the longer bar 1 permits the portion of the cord between the ends of the bars to stand approximately vertical.

The vertical arrangement of the cord furnishes a large grasping surface, since the trainman has in reach the full length of the cord between the free ends of the arms, and can hardly fail to strike the cord. The cord is held taut, but in such manner that it will be released without any possibility of catching.

I claim:

1. A device of the character specified, comprising a pair of bars of unequal length, one end of the short bar being secured to the long bar intermediate its ends, a fixed post provided with a bearing for engagement by one end of the long arm, said bearing being inclined, the bars diverging from each other toward the other end of the long bar, and the bars being of such relative length that, when supported by the post, the free ends of the bars will be in approximate vertical alinement, a cross bar connecting the bars intermediate their ends, and means on the bars for releasably supporting an endless cord with a portion of its length extending

between the free ends of the bars, said means comprising a spring arm secured to the cross bar on each side of its center for swinging movement toward and from the cross bar, said arms extending in opposite directions, and each arm having a notch or recess for the cord in its free end, the free end of each bar being notched to receive the cord, the notches extending approximately vertical, springs pressing the arms toward the cross bar, a stop for limiting the movement of each arm toward the bar, and a sleeve on the free end of each bar.

2. A device of the character specified, comprising a pair of bars of unequal length, one end of the short bar being secured to the long bar intermediate its ends, a fixed post provided with a bearing for engagement by one end of the long arm, said bearing being inclined, the bars diverging from each other toward the other end of the long bar, and the bars being of such relative length that, when supported by the post, the free ends of the bars will be in approximate vertical alinement, a cross bar connecting the bars intermediate their ends, and means on the bars for releasably supporting an endless cord with a portion of its length extending between the free ends of the bars, said means comprising a spring arm secured to the cross bar on each side of its center for swinging movement toward and from the cross bar, said arms extending in opposite directions, and each arm having a notch or recess for the cord in its free end, the free end of each bar being notched to receive the cord, the notches extending approximately vertical, springs pressing the arms toward the cross bar, and a sleeve on each bar near the notch.

3. A device of the character specified, comprising a pair of bars of unequal length, one end of the short bar being secured to the long bar intermediate its ends, a fixed post provided with a bearing for engagement by one end of the long arm, said bearing being inclined, the bars diverging from each other toward the other end of the long bar, and the bars being of such relative length that, when supported by the post, the free ends of the bars will be in approximate vertical alinement, a cross bar connecting the bars intermediate their ends, and means on the bars for releasably supporting an endless cord with a portion of its length extending between the free ends of the bars, said means comprising a spring arm secured to the cross bar on each side of its center for swinging movement toward and from the cross bar, said arms extending in opposite directions, and each arm having a notch or recess for the cord in its free end, the free end of each bar being notched to receive the cord, the notches extending approximately vertical, and springs pressing the arms toward the cross bar.

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4. A device of the character specified, comprising a pair of bars of unequal length, one end of the short bar being secured to the long bar intermediate its ends, a fixed post
5 provided with a bearing for engagement by one end of the long arm, said bearing being included, the bars diverging from each other toward the other end of the long bar, and the bars being of such relative length that,
10 when supported by the post, the free ends of the bars will be in approximate vertical alinement, a cross bar connecting the bars intermediate their ends, and means on the bars for releasably supporting an endless
15 cord with a portion of its length extending between the free ends of the bars, said means comprising oppositely extending arms on the cross bar mounted to yield toward the free ends of the bars and having notches for
20 the cord, and notches in the said free ends of the bars for receiving the cord.

5. A device of the character specified, comprising a pair of bars of unequal length, one end of the short bar being secured to the
25 long bar intermediate its ends, a fixed post provided with a bearing for engagement by one end of the long arm, said bearing being inclined, the bars diverging from each other toward the other end of the long bar, and
30 the bars being of such relative length that, when supported by the post, the free ends of the bars will be in approximate vertical alinement, a cross bar connecting the bars intermediate their ends, and means on the
35 bars for releasably supporting an endless cord with a portion of its length extending between the free ends of the bars.

6. A device of the character specified, comprising a pair of bars of unequal length,
40 one end of the short bar being secured to the long bar near one end thereof, said bars diverging toward the opposite end of the long bar, a cross bar connecting the bars, oppositely arranged arms on the cross bar, one
45 arm being on each side of the center of the cross bar, and each arm extending toward the adjacent bar, said bars and arms having their free ends notched to receive an endless cord, and springs pressing the arms toward

the cross bar, and means engaging the end 50 of the long bar, adjacent to the connection of the bars for supporting said bars with their free ends in approximately vertical alinement.

7. A device of the character specified, 55 comprising a pair of bars of unequal length, one end of the short bar being secured to the long bar near one end thereof, said bars diverging toward the opposite end of the long bar, a cross bar connecting the bars, 60 oppositely arranged arms on the cross bar, one arm being on each side of the center of the cross bar, and each arm extending toward the adjacent bar, said bars and arms having their free ends notched to receive an 65 endless cord, springs pressing the arms toward the cross bar, and means for supporting the bars with their free ends in approximate vertical alinement.

8. A device of the character specified, 70 comprising a pair of bars of unequal length, one end of the short bar being secured to the long bar near one end thereof, said bars diverging toward the opposite end of the long bar, a cross bar connecting the bars, oppo- 75 sitely arranged arms on the cross bar, one arm being on each side of the center of the cross bar, and each arm extending toward the adjacent bar, said bars and arms having their free ends notched to receive an 80 endless cord, and springs pressing the arms toward the cross bar.

9. A device of the character specified, comprising a pair of bars connected at one end and diverging toward the other, the free 85 end of each bar having a notch for receiving an endless cord, and resilient means supported between the bars for engaging and pressing the cord in opposite directions for holding taut that portion of the cord be- 90 tween the free ends of the bars, said means being arranged to yield and release the cord when traction is exerted thereon.

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Witnesses:

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