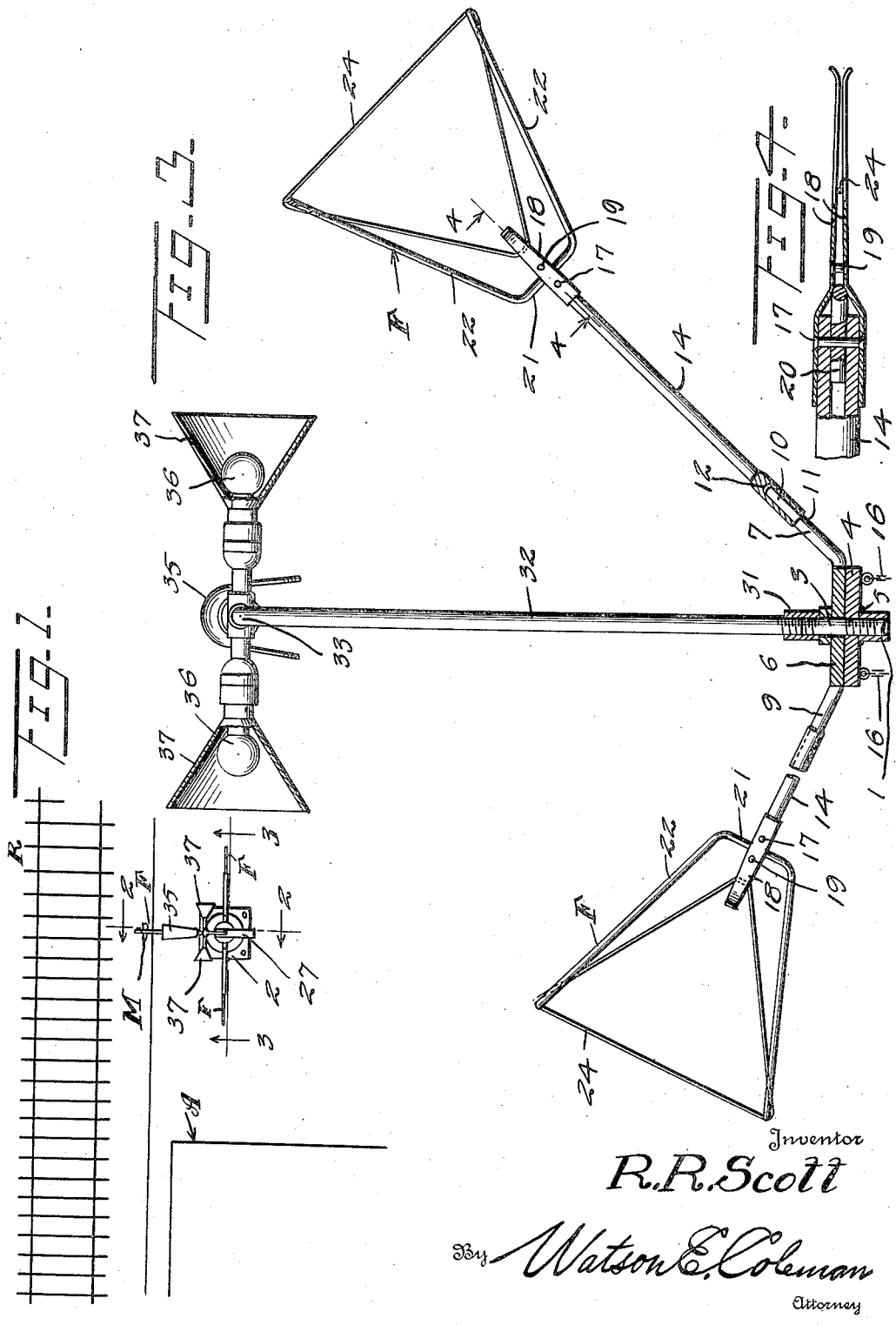
Dec. 31, 1940. R. R. SCOTT 2,226,981

SAFETY NONDELAY TRAIN ORDER DEVICE

Filed June 28, 1938 2 Sheets-Sheet 1



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Fig. 2.

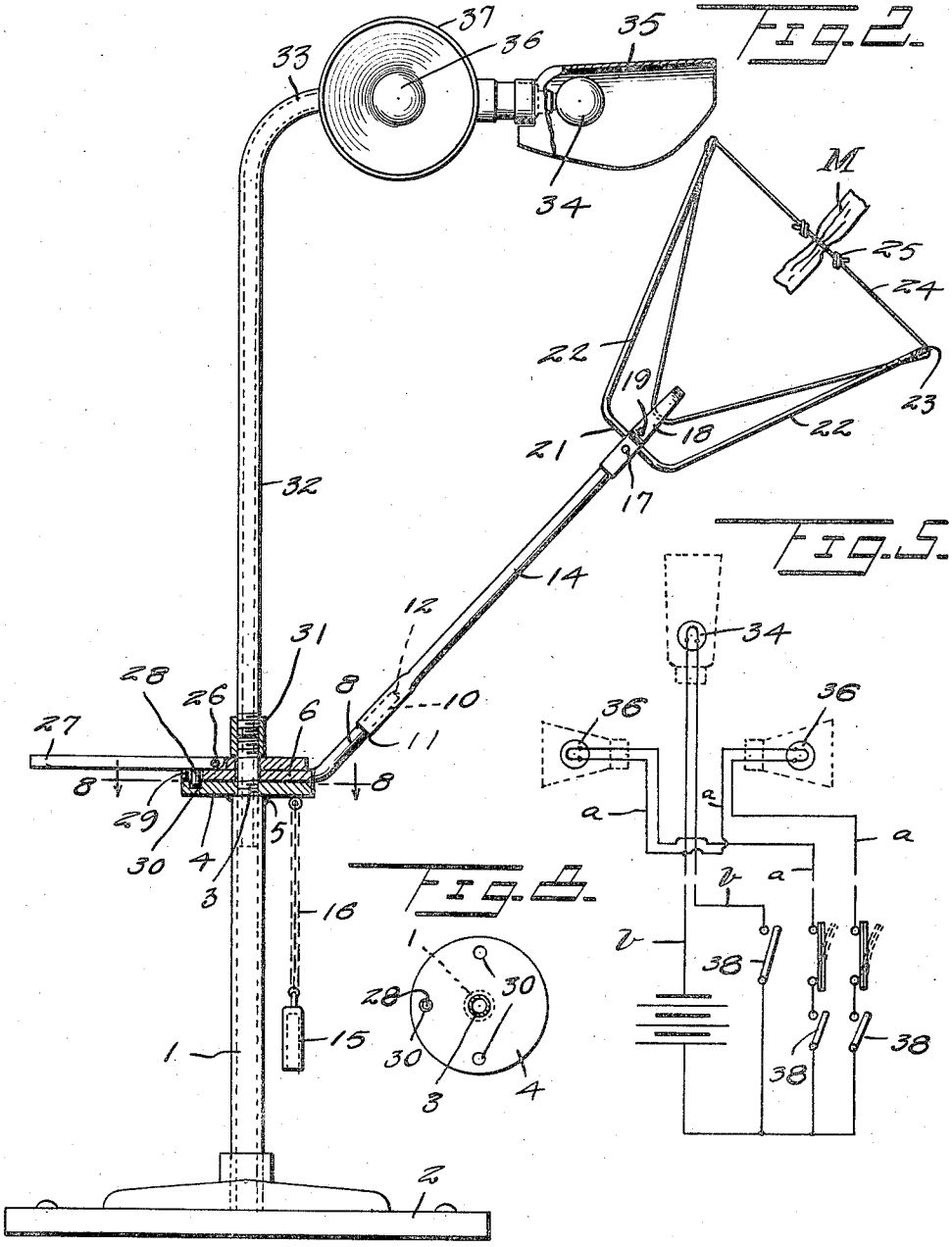


Fig. 5.

Fig. 4.

Fig. 6.

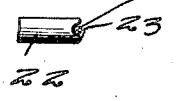
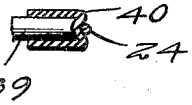


Fig. 7.



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SAFETY NONDELAY TRAIN ORDER DEVICE

Robert Ray Scott, Martin, Tenn.

Application June 28, 1938, Serial No. 216,399

4 Claims. (Cl. 258—2)

This invention relates to a safety nondelay train order device, and it is an object of the invention to provide an apparatus of this kind whereby train orders may be so positioned as to be readily grabbed by an occupant of an engine cab or of a caboose.

It is also an object of the invention to provide an apparatus of this kind comprising a rotatable table provided with a plurality of staffs with each of which is adapted to be engaged a message carrying fork, the rotating element permitting the various forks to be selectively adjusted in proper position with respect to a right-of-way so that the message carried by a fork may be readily grasped by an occupant of a passing train.

Another object of the invention is to provide an apparatus of this kind having signalling means readily visible to a train approaching in either direction to give notice that a message is in position to be grabbed or picked up by an occupant of the train.

A further object of the invention is to provide an apparatus of this kind comprising one or more staffs for selective positioning with respect to a right-of-way together with a message carrying fork adapted to be detachably engaged with the staff.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved safety nondelay train order device whereby certain important advantages are attained and the device rendered simpler, less expensive and otherwise more convenient and advantageous for use, as will be hereinafter more fully set forth.

The novel features of my invention will hereinafter be definitely claimed.

In order that my invention may be the better understood, I will now proceed to describe the same with reference to the accompanying drawings, wherein:

Figure 1 is a diagrammatic view in top plan illustrating the positioning of a crane embodying my invention with respect to a right-of-way.

Figure 2 is a view partly in section and partly in elevation of my improved apparatus, the line of section being substantially on the line 2—2 of Figure 1;

Figure 3 is an enlarged fragmentary sectional view taken substantially on the line 3—3 of Figure 1 with parts in elevation;

Figure 4 is an enlarged fragmentary sectional view taken substantially on the line 4—4 of Figure 3;

Figure 5 is a diagrammatic view illustrating the various signal lights and operating circuits therefor;

Figure 6 is an enlarged fragmentary view in elevation of the outer extremity of a tine comprised in a fork, an associated string being shown in fragment;

Figure 7 is a view similar to Figure 6 but illustrating an embodiment wherein a protective tip is engaged over the outer extremity of the tine;

Figure 8 is a detailed sectional view taken substantially on the line 8—8 of Figure 2.

As diagrammatically illustrated in Figure 1, my improved apparatus is so positioned upon a station platform or otherwise as may be preferred with respect to the right-of-way R as to permit a ready grabbing or picking off of a message carried by the apparatus by an occupant of a passing train without the necessity of the train changing its speed and without requiring the attendance of an employee. The apparatus is preferably positioned in relatively close proximity to the office A for the telegrapher or other employee.

The apparatus, as herein disclosed, comprises an upstanding standard 1 which is supported in desired position in any manner preferred and herein disclosed through the medium of a base 2. The manner of mounting and supporting the standard 1 may, however, be as desired.

As herein disclosed, the standard 1 is tubular and threading in the upper portion of the standard 1 is the lower extremity of a vertically directed member 3 which extends a desired distance above the top of the standard 1. This member 3 also threads through a table 4 having its central portion welded, as at 5, or otherwise fixedly secured to the top of the standard 1.

Freely mounted on the member 3 and resting upon the table 4 is a disk or rotatable member 6 havin gextending outwardly and upwardly therefrom the staffs 7, 8 and 9. As herein disclosed, the staffs 7 and 9 are oppositely disposed with the staff 8 arranged intermediate thereof. The staffs 7 and 9 are disposed upwardly on an incline of approximately forty-five degrees while the staff 8 is upwardly disposed on an angle of approximately thirty degrees.

Each of the staffs has its upper end portion reduced, as at 10, the inner extremity of which portion 10 is surrounded by a shoulder 11. This shoulder 10 is angular in cross section and snugly fits within a socket 12 provided at one end portion of an elongated handle 14 of a fork F. By means of the socket 12 a fork is detachably and

selectively engaged with one of the staffs 7, 8 or 9. When each of such staffs is free of a fork and particularly during low temperatures, a cap 15 is engaged over the portion 10 of the staff to eliminate the formation of ice thereon which might interfere with the application of a fork to such staff. There is a sleeve for each of the staffs and each of which sleeves when not in use is suspended from the table 4 by a chain 16 or other preferred flexible member of sufficient length.

The outer end portion or that extremity of the handle member 14 remote from the socket 12, has secured thereto, as at 17, the inner end portions of the flat spring members 18. These members 18 extend a desired distance beyond the adjacent outer end of the handle member 14 and the outer portions of said springs 18 are held in close relation by a rigid member 19 or the like.

Telescopically engaged within the outer end portion of the handle member 14 is a tang 20 held to the handle member 14 by the rivet or fastening means 17 hereinbefore referred to. This tang 20 is arranged at the central part of a base or cross member 21 of the fork proper the extremities of said member 21 being continued by the outwardly diverging tines 22 of desired length. It is to be noted that the tines 22 are coplanar and also on a plane extending between the outer portions of the springs 18. In other words, the tines 22 are in right angular relation to the springs 18. The outer extremity of each of the tines 22 is provided with a notch 23 to receive a portion of a string or band 24 to which the message M is tied, as at 25, in a conventional manner. This string or band 24 constitutes a loop and the intermediate portion thereof is frictionally engaged between the springs 18 as clearly illustrated in the accompanying drawings. This engagement of the string or band 24 with the springs 18 serves to maintain said band or string in proper engagement with the outer extremities of the tines 22. When the fork is in proper position with respect to the right-of-way an occupant of the train may readily grasp the string or band and thus pick up the message secured thereto.

The tines 22 are of such length and so spaced apart as to allow the string or band 24 to provide a loop of sufficient size so that the hand and forearm of a trainman may readily pass through the loop formed by the string or band 24.

When a fork is applied to either of the staffs 7 or 8 the message is to be grabbed or picked up by an occupant of the locomotive. When it is desired to deliver a message to the occupant of a caboose or kindred rolling stock the fork is applied to the staff 9.

Two staffs 7 and 8 are provided to enable the delivery of messages to the engineman of a double header. Under these conditions, however, a station attendant will have to shift the second fork into proper position after the message has been taken from a fork by an engineman on the first locomotive.

As disclosed in the accompanying drawings, the disk or rotatable member 6 has pivotally connected thereto, as at 26, an end portion of an elongated operating handle 27. As herein disclosed, the pivotal connection 26 is substantially diametrically opposed to the staff 8 or at a point substantially midway between the staffs 9 and 7. The handle 27 closely adjacent to its pivot 26 carries a depending lug 28 which freely works through the opening 29 in the disk or rotatable member 6 and which is adapted to be selectively received within a holding recess 30 provided in the upper face of the table 4.

Each of the staffs 7, 8 and 9 has one of these recesses 30 in radial alignment therewith and in the placement of the crane the operating handle 27 is substantially at right angles to the right-of-way R so that when the lug 28 is within a recess 30, the radially aligned staffs 7, 8 and 9 will be disposed toward such right-of-way and held in this position. The various staffs 7, 8 and 9 can be readily moved into desired position with respect to the right-of-way upon slight raising movement of the operating handle 27 to unlock the disk or member 6 and, of course, when the desired adjustment is made the lug 28 is dropped into engagement with the corresponding recess 30 to lock the disk or member 6 against rotation.

Coupled by the sleeve 31 to the upper portion of the member 3 is the lower extremity of an upstanding column 32 which constitutes an extension of the standard 1. The upper end portion of this column 32 is continued by a right angular extension 33 which in the placing of the crane is disposed toward the right-of-way. This column 32 and extension 33 are also tubular for the passage therethrough of the conductors for the signal lights to be hereinafter more particularly referred to. The outer end portion of the arm 33 carries an electric lamp 34 preferably a conventional bulb and which lamp is arranged within a reflector 35 also carried by the outer end portion of the arm 33. This reflector 35, as herein disclosed, is relatively long and narrow and is so constructed and arranged to throw a beam of light down upon a fork F which has been properly positioned with respect to the right-of-way. This lamp 34 and reflector 35 assure effective illumination of such fork and more particularly of the spring or band 24 so that the grabbing or picking up of the message by an occupant of the train is materially facilitated.

The arm 33 also carries the oppositely disposed signal lamps 36, each having associated therewith a reflector 37. Each of these lamps 36 has its independent operating circuit *a* while the lamp 34 also has its independent circuit *b*. The circuits *a* are of a flasher type while the circuit *b* is one which provides for a continuous burning of the lamp.

The conductors for the several circuits as hereinbefore stated, extend down through the column 32 and extension 33 and preferably lead to a point within the telegrapher's office A and wherein each of the circuits *a* and *b* has interposed therein a conventional switch 38 so that the various lamps may be caused to operate when desired. The flashing of a lamp 36 gives notice to the crew of an approaching train that there is a message in position to be grabbed or picked up.

In Figure 7 of the drawings, the outer extremities of each of the tines 39 of a fork has applied thereto a cap 40 of rubber or other suitable material to protect against injury the person on the passing train who reaches out to grab or pick up the message.

My device, as herein disclosed, covers all safety points. At the present time train crews have to come down on steps to receive train orders which is very dangerous. With the invention as herein disclosed this is not necessary as a member of the train crew does not have to leave his seat to get the train orders or messages. Furthermore, with the use of my device it is not neces-

sary for a station man to stand close to a passing train to deliver an order or message but, on the contrary, my improved device can be properly set and then no longer require the attention of the station man.

The source of electrical energy for operating the various lamps or signals may be a conventional supply line or dry cell batteries.

The lamps 36 are also to be used under authority from a train dispatcher to not allow a train to head into a sidetrack and to flash on and off as the signal for a train to come down the main line to avoid delays.

It is believed to be apparent from the foregoing that my device operates effectively to provide safety for employees and to save delays of trains.

From the foregoing description it is thought to be obvious that a safety non-delay train order device constructed in accordance with my invention is particularly well adapted for use by reason of the convenience and facility with which it may be assembled and operated, and it will also be obvious that my invention is susceptible of some change and modification without departing from the principles and spirit thereof and for this reason I do not wish to be understood as limiting myself to the precise arrangement and formation of the several parts herein shown in carrying out my invention in practice except as hereinafter claimed.

I claim:

1. A train order crane comprising a column, a table carried by the column at a point above its lower end, a member resting from above upon the table and rotating around the column, upwardly and outwardly disposed staffs carried by the rotatable member, an order carrying fork selectively engageable with the staffs, and a handle member carried by and above the rotatable member, said handle member being secured to the rotatable member for swinging movement toward and from said rotatable member, said handle member having a part engaging the table for holding the rotatable member against rotation when a staff is in working position.

2. A train order crane comprising a column, a table carried by the column at a point above its lower end, a member resting from above upon the table and rotating around the column, upwardly and outwardly disposed staffs carried by the rotatable member, an order carrying fork selectively engageable with the staffs, and a handle member carried by and above the rotatable member, said handle member being secured to the rotatable member for swinging movement toward and from said rotatable member, said handle member having a part engaging the table for holding the rotatable member against rotation when a staff is in working position, certain of said staffs being disposed on a greater angle than the remainder.

3. A train order crane comprising a column, a table carried by the column at a point above its lower end, a member resting from above upon the table and rotating around the column, upwardly and outwardly disposed staffs carried by the rotatable member, an order carrying fork selectively engageable with the staffs, a handle member pivotally connected to the rotatable member and positioned above and extending substantially radial of said rotatable member, and means carried by the handle member and engaging the table for holding the rotatable member against rotation when a staff is in working position.

4. A train order crane comprising a column, a table carried by said column, a member resting on the table and rotating around the column, a plurality of staffs extending upwardly and outwardly from the rotating member, said table being provided with a plurality of recesses, the rotatable member having an opening registering with one of said recesses when a staff has been placed in working position, a handle member pivotally connected to the rotating member, and a lug carried by said handle member, said lug when the handle member is lowered extending through the opening in the rotatable member and within the recess of the table in register with said opening to lock the rotatable member against rotation, lifting movement of the handle member freeing the lug from the table to permit rotation of the rotatable member.

ROBERT RAY SCOTT.