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RAILWAY TRAIN ORDER INDICATOR.

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999,625.

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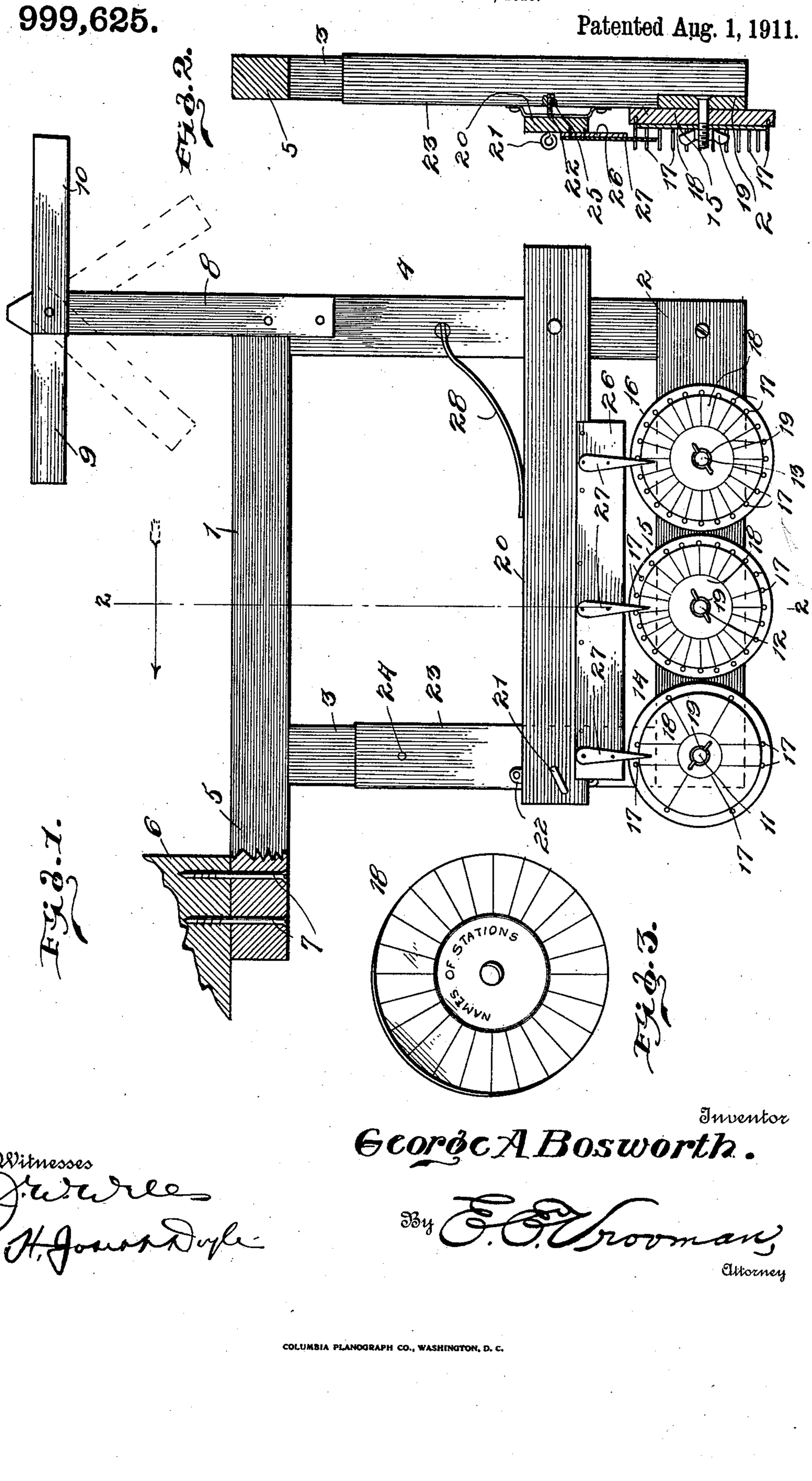

Fig. 1.

Fig. 2.

Fig. 3.

Witnesses

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RAILWAY-TRAIN-ORDER INDICATOR.

999,625. Specification of Letters Patent. Patented Aug. 1, 1911.

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To all whom it may concern:

Be it known that I, GEORGE A. BOSWORTH, a citizen of the United States of America, residing at Lincoln, in the county of Lancaster and State of Nebraska, have invented certain new and useful Improvements in Railway-Train-Order Indicators, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to indicators especially adapted for use by the crew of a train for indicating train orders, and the principal object of the same is to provide a device of the type specified which may be used in an engine cab for the engine men or in a car for the train men so that a visible reminder will be provided so that an order or orders will not be overlooked.

In carrying out the objects of the invention generally stated above, it will be understood, of course, that the essential features thereof are necessarily susceptible of changes in details and structural arrangements, one preferred and practical embodiment of which is shown in the accompanying drawings, wherein—

Figure 1 is a view in elevation of a supporting frame, showing the improved indicator mounted thereon. Fig. 2 is a vertical sectional view taken on the line 2—2, Fig. 1. Fig. 3 is a detail perspective view of one of the order-receiving dials for the rotatable indicators.

Referring to said drawings by numerals, it will be seen that the improved train order indicator comprises a substantially rectangular supporting frame that is composed of the upper bar 1, the lower bar 2 and the side bars 3—4 that connect the upper and lower bars. Upper bar 1 has a protected end 5 that is adapted to be fastened to a roof beam or the like 6 by means of screws 7 or other detachable fasteners to suspend the supporting frame. At its end opposite projected end 5, upper bar 1 carries a vertical standard 8 which has signaling arms 9—10 pivotally connected to opposite portions of its upper end.

Lower bar 2 is provided with suitably spaced laterally-projecting pivot bolts 11, 12 and 13 for the reception of the flat annular indicator disks 14, 15 and 16. Said disks are rotatable on their pivot bolts, and are each provided with suitably spaced pins 17 which project laterally from their outer surface and which are arranged in an annular row to conform to the contour of the outer edge of the disks. A dial 18 of suitable material is fitted over each pivot bolt and clamped to the indicator disks within the annular row of pins 17 by the thumb-nuts 19 which engage the threaded outer end of each pivot bolt. As will be obvious, the thumb-nuts when tightened, clamp disks 14, 15 and 16 to bar 2 in addition to clamping dials 18 to said indicator disks.

A lever 20 has one end pivotally connected to bar 4 and its free end is provided with a set screw 21. The free end of lever 20 is retained in spaced relation to bar 3 when lowered by the outstanding guide strip 22 that is carried by bar 3. Bar 3 is covered by a wear sheet 23, the upper portion of which is provided with an opening 24 for the reception of the set screw 21 so that the free end of lever 20 may be retained in an elevated position. Wear sheet 23 is provided with a similar lower opening 25 for the reception of a set screw 21 to retain lever 20 in a position at right angles to bars 3—4. Lever 20 is provided with a pendent plate 26 which carries pointers 27 corresponding in number with the indicator disks and which project through the annular rows of pins 17 and point to one of the indications on each disk 18. Obviously the pins 17 serve as abutments which the pointers engage when at indicating positions, so that the disks cannot be rotated.

A spring 28, preferably a leaf spring, has one end fastened to bar 3 above lever 20, its other end bearing upon the upper edge of lever 20 and constantly exerting a pressure to retain the free end of said lever lowered.

Standard 8 and arms 10 constitute a miniature train order board, and in use the arms 10 are "set" to correspond with the position of the train order board at a station, which station order board indicates the condition of the track beyond the station, thereby providing constantly visible means which indicate on the train the condition of the track to the engine men, conductor or train men. The three dials may be designated as "Wait order," "Meet order" and "Emergency" or "General," and the first two dials contain the names of stations or stopping places and incidental symbols or words, and also are provided with blank spaces for insertions or additions. For example, a train order received stating "Meet

53 at Hastings and take siding"; upon receipt of such order "Meet dial" is adjusted so that the hand or pointer 27 calls attention to "Hastings" and the "Emergency dial" is adjusted until the pointer therefor calls attention to "Take siding." The "Emergency dial" is adjusted to indicate danger or other symbol. With the parts of the invention in this position, it will be seen that the dials are constantly reminding the crew to "Take siding Hastings" and the danger of passing beyond Hastings.

It will be seen from the foregoing that this invention provides simple and effective means for constantly calling a train attendant's attention to orders so that there is little or no chance of the orders being overlooked.

What I claim as my invention is:—

1. A device of the character described comprising a supporting frame, indicator disks rotatably mounted thereon, a lever pivotally connected to said frame, pointers carried by said lever and coöperating with said indicators, and means carried by said disks and engaged by said pointers to prevent rotation of said disks.

2. A device of the character described comprising a supporting frame, indicator disks carried thereby, an order-receiving dial carried by each indicator disk, a lever having one end pivoted to said frame, pointers carried by said lever, a spring for normally holding said lever in position to cause its pointers to designate orders on said order-receiving dials, and means carried by said disks and engaged by said pointers to prevent rotation of said disks.

3. A device of the character described comprising a frame, pivot bolts projecting from the lower portion thereof, an indicator disk mounted on each bolt, an order-receiving dial also mounted on each bolt, means for clamping said disks and dials together and to said frame, a lever pivoted to said frame, pointers carried thereby, means for normally holding said lever in position to cause said pointers to designate orders on said order-receiving dials, and means carried by said disks and engaged by said pointers to prevent rotation of said disks.

4. A device of the character described comprising a frame, indicators carried thereby, a lever having one end pivoted to said frame, a set screw carried by said lever and adapted to engage said frame to retain the free end of said lever elevated or lowered, pointers carried by said lever, means carried by said frame for normally retaining the free end of said lever lowered, and means carried by said disks and engaged by said pointers to prevent rotation of said disks.

5. A device of the character described comprising a frame, indicator disks rotatably mounted thereon, spaced laterally projecting pins carried by said disks, a hand lever pivotally connected to said frame, and indicating pointers carried by said lever and engaging said pins to prevent rotation of said disks.

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

GEORGE A. BOSWORTH.

Witnesses:

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ALF. O. HENPELSHEIMER.