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AUTOMATIC LOCATOR RECORDER

Filed Feb. 2, 1932

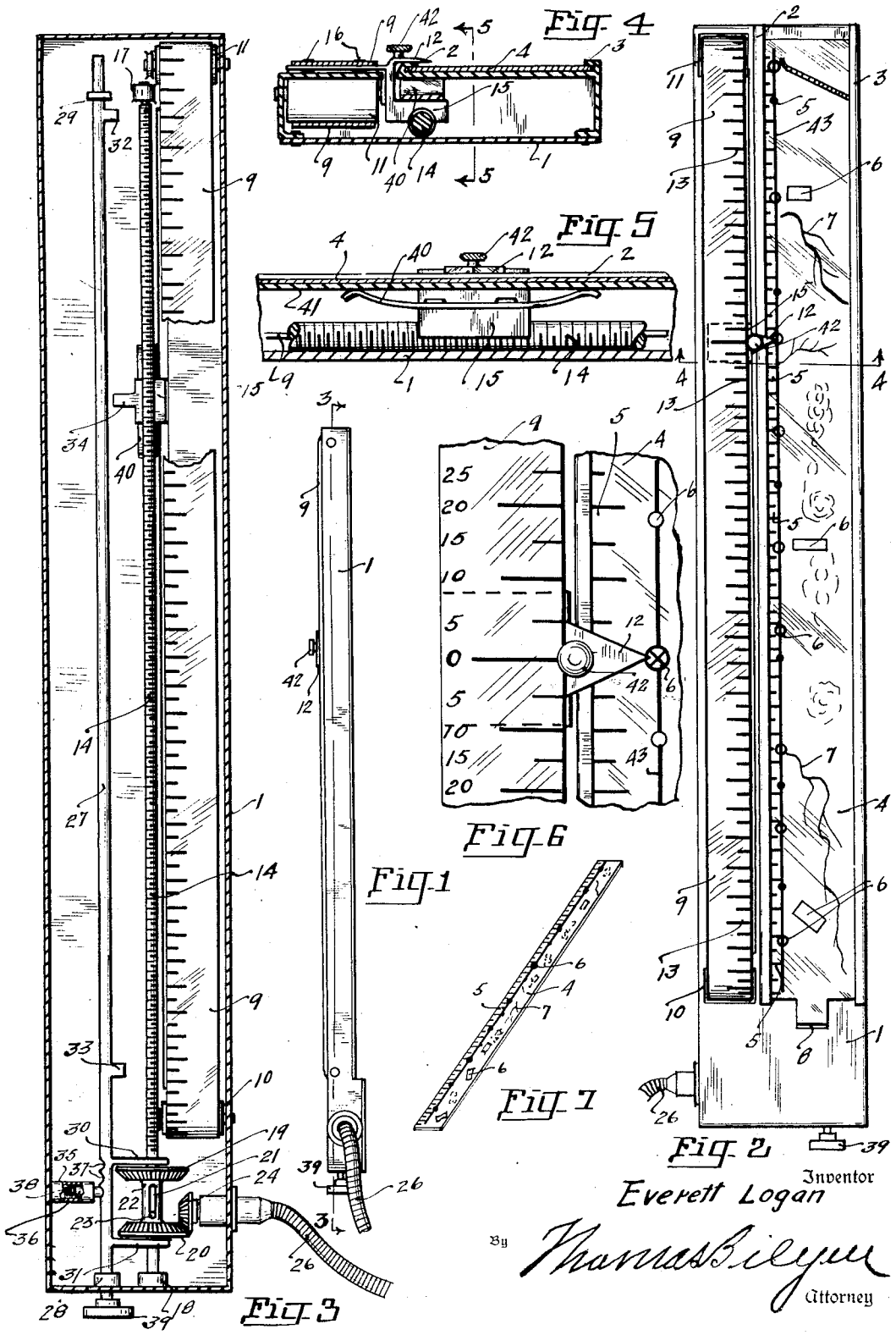


Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

Fig. 7

Inventor
Everett Logan

By Thomas Bilyeu
Attorney

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EVERETT LOGAN, OF PORTLAND, OREGON, ASSIGNOR OF ONE-HALF TO AVAN B. CUMMONS, OF PORTLAND, OREGON

AUTOMATIC LOCATOR RECORDER

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My invention relates to automatic indicating devices and is primarily adapted for use upon vehicles, such as automobiles, motor busses and trucks, motor boats, street cars and railway equipment.

The device has for its primary purpose and object the indicating of the distance from point to point along established routes of travel.

A power driven indicator is made to move along graduated strips, having delineated thereupon, distances, locations, service to be rendered, and any other desirable data.

The invention is primarily comprised of a case, or housing having an endless graduated tape disposed therein, that is adapted for being moved either by power, or manual manipulation.

Strips having delineations disposed thereupon are adapted for being placed into and removed from the case, or housing. Delineations are made upon the strips as, cities, towns, service stations and any and all other data that it may be found desirable to delineate thereupon.

The purpose and object of my invention is to provide in a condensed unit pertinent data that is desired by travelers, vehicle operators and others, in order that they may know at a glance the distance in either direction to points of interest, or objectives to be reached.

A still further object of my invention consists in so constructing my device that the same may be utilized with equal facility while driving in either direction along the routes of travel.

A still further object of my invention consists in so constructing the device that strip material may be placed therein that will furnish precise information from point to point along the way and which strip may be removed and replaced at the will of the user of the same.

With these and incidental objects in view, the invention consists in certain novel features of construction and combination of parts, the essential elements of which are set forth in the appended claims, and a preferred form of embodiment of which is hereinafter shown with reference to the drawing which accompany and form a part of this specification.

In the drawing:

Fig. 1 is a side view of the assembled device.

Fig. 2 is a front view of the assembled device.

Fig. 3 is a sectional, side view, of the mechanism, illustrated in Fig. 1. The same being taken on line 3—3 of Fig. 1, looking in the direction indicated.

Fig. 4 is a sectional, end view, of the mechanism illustrated in Figs. 1, 2 and 3. The same being taken on line 4—4 of Fig. 2, looking in the direction indicated.

Fig. 5 is a fragmentary, sectional, side view, of the assembled device. The same being taken on line 5—5 of Fig. 4, looking in the direction indicated.

Fig. 6 is a fragmentary, front view, of the graduated endless band adapted for being power driven and illustrating the pointer secured thereto.

Fig. 7 is a perspective, end view, of one of the graduated strips shown removed from the assembled device.

Like reference characters refer to like parts throughout the several views.

I preferably form my device of a case 1. I comprise the case, having side, end and rear walls, to leave the same open faced, as illustrated in Fig. 2. I form a panel in the front face of the case and provide channel ways at either side of the panel by having ledges 2 and 3 disposed longitudinally of the case, into which delineated strips 4 are placed. Distance graduations, as miles 5, are disposed along one edge of the graduated strip, and in the logging of the artery of travel, important places, as towns 6 and rivers 7 and other pertinent data are delineated thereupon and in their proper position and location, relative to the artery of travel. These strips have a tab, or ear 8 disposed at one end to facilitate its placement within the panel and its removal therefrom. The graduations, disposed adjacent the edge of the strip, may be graduated into miles, or other degrees of measurement. An endless band

9 is also disposed within the case, the same being trained about suitable supporting spools, or drums 10 and 11. The graduated endless band being preferably made of flexible material to facilitate its remaining in a taut condition about the respective spools, or drums.

A pointer 12 is carried by the endless strip and the same is placed in registry with the graduations 5 disposed adjacent one end of the panel 8. Graduations 13 being also disposed adjacent one edge of the graduated endless band, so that the distance from the pointer, or indicator 12, in either direction relative to the delineated strip, may be easily determined.

A screw 14 is disposed longitudinally of the panel and a threaded block 15 is threadably disposed upon the screw 14 and is adapted to move the same as the screw 14 is rotated. The threaded block 15 carries the pointer 12 and is secured to the endless band 9 in any suitable manner as by being riveted thereto, as illustrated at 16 in Fig. 4. The screw 14 is mounted within suitable bearings 17 and 18 that are disposed within the case, and driving gears 19 and 20 are secured together and mounted upon the screw 14.

A slot 21 is disposed within the hub 22 that connects the respective gears 19 and 20. A pin 23 is secured to the shaft and is placed in registry with the slot so that, as either of the gears are driven the threaded screw will be driven. The gears 19 and 20 are placed sufficiently apart to permit the device being placed in neutral position if the same is found desirable for any reason.

A driving pinion 24 is adapted for being placed in driving registry with either of the gears 19 and 20, or for being placed therebetween to place the gears 19 and 20 in neutral position relative to that of the driving pinions 24. The driving pinion 24 is mounted upon a stub shaft that is adapted for being driven by a flexible shaft 25 disposed within the flexible protector 26. A control rod 27 runs longitudinally of the case, or jacket 1 and the same is held in position and alignment by the bearings 28 and 29.

The gears 19 and 20 and the connecting hub 21 spaces the gears apart sufficiently to be positioned within the arms 30 and 31 and the shifting of the control rod 27 shifts the gears and the connecting hub along the screw 14.

Lugs 32 and 33 outwardly extend from one side of the control rod 27. A stop bar 34 rearwardly extends from the threaded block 15 and the stop bar 34 is in registry alignment with the lugs 32 and 33.

Referring to Fig. 3, the driving pinion 24 is in position and is coacting with the gear 20 and the threaded block is being threaded along the screw 14 and in the direction of the lug 33 so that when the stop bar 34 engages the lug 33, the control rod will be shifted longitudinally and the driving pinion 24 will be automatically disengaged from the driven gear 20.

A barrel 35 is secured to the case, or jacket and a locking pin 36 is reciprocably disposed within the barrel. Locking notches 37 are disposed within the control rod and the locking pin 36 is normally maintained in registry with one of the locking notches, through the action of the reacting element as a coil spring 38. The three notches disposed within the control rod cooperating with the locking pin permits the gears 19, or 20 to be held in working relationship with the pinion 24, or for the same to be positioned in neutral relative to the driving pinion 24. A hand engaging knob 39 is disposed upon the outer end of the control rod to permit the same being manually manipulated. The threaded block 15 is preferably made so that it does not entirely encompass the screw 14, but is made to engage one side of the same.

A flat spring 40 may be placed so as to engage the underside 41 of the case and be made to cause the block 15 to engage the side of the threaded screw.

When it is found desirable to shift the graduated endless band, so that the pointer will register with any point on the delineated strip, the gears are placed in neutral relative to the driving pinion, at which time the hand may be made to engage the knob 42, and the pointer 12 may then be placed at starting position relative to the graduated strip 4. The block 15 may be disengaged from the screw 14 to facilitate the moving of the block and the associated assembly longitudinally of the screw by the pulling of the knob 42 and the compressing of the flat spring 40, to disengage the block from the screw. Strips are provided and logged for all primary arteries of traffic and when the end of the strip has been reached in any direction of travel, the same may then be removed and another strip be placed therein, at which time the device may be set to work.

My device may be used with equal facility on street cars, automobiles, motor busses, motor trucks, railway trains and upon any and all vehicles where a power drive, or connection may be made.

While the form of mechanism herein shown and described is admirably adapted to fulfill the objects primarily stated, it is to be understood that it is not intended to confine the invention to the one form of embodiment herein shown and described, as it is susceptible of embodiment in various forms, all coming within the scope of the claims which follow.

What I claim is:

1. In a device of the class described, the combination of a case, a delineated strip removably securable to the case, graduations disposed adjacent one edge of the strip, an

endless band graduated into linear graduations at either side of a pointer carried by the endless band, a screw rotatably mounted within the case, means disposed between the pointer and the screw to move the pointer and the band when the screw is rotated, selective power means for predetermining the direction of rotation of the screw and the direction of rotation and the direction of movement of the band, and means for automatically stopping the power rotation of the graduated endless band when a predetermined point is reached in the travel of the pointer carrying block and for placing the drive in a neutral driving position.

2. In a device of the class described, the combination of a case, an endless band mounted relative to the case and selective means for rotating the endless band in either direction and for carrying the graduated portion of the band in either direction longitudinally of the front of the case, a strip removably mounted parallelly to the face of the endless band, delineations disposed upon the face of the strip and adapted for indicating thereupon locations relative to arteries of travel, a pointer carried upon the endless band and the graduations of the band starting at zero at the pointer and uniformly increasing in linear measure, in either direction from the pointer.

3. An indicator for travelers consisting of a strip having delineated thereupon locations adjacent arterial roadways, an endless band carrying a pointer, units of linear measure graduated upon the endless band and uniformly increasing in units of measure in either direction from the pointer and selective means for moving the endless band and the pointer, in either direction and parallelly to the delineated strip.

EVERETT LOGAN.