J. A. GREER.

COMBINED STREET INDICATOR AND ADVERTISING DEVICE.

APPLICATION FILED JAN. 17, 1916.

1,223,270.

Patented Apr. 17, 1917.

4 SHEETS—SHEET 1.



Fig. 1

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4 SHEETS—SHEET 2.

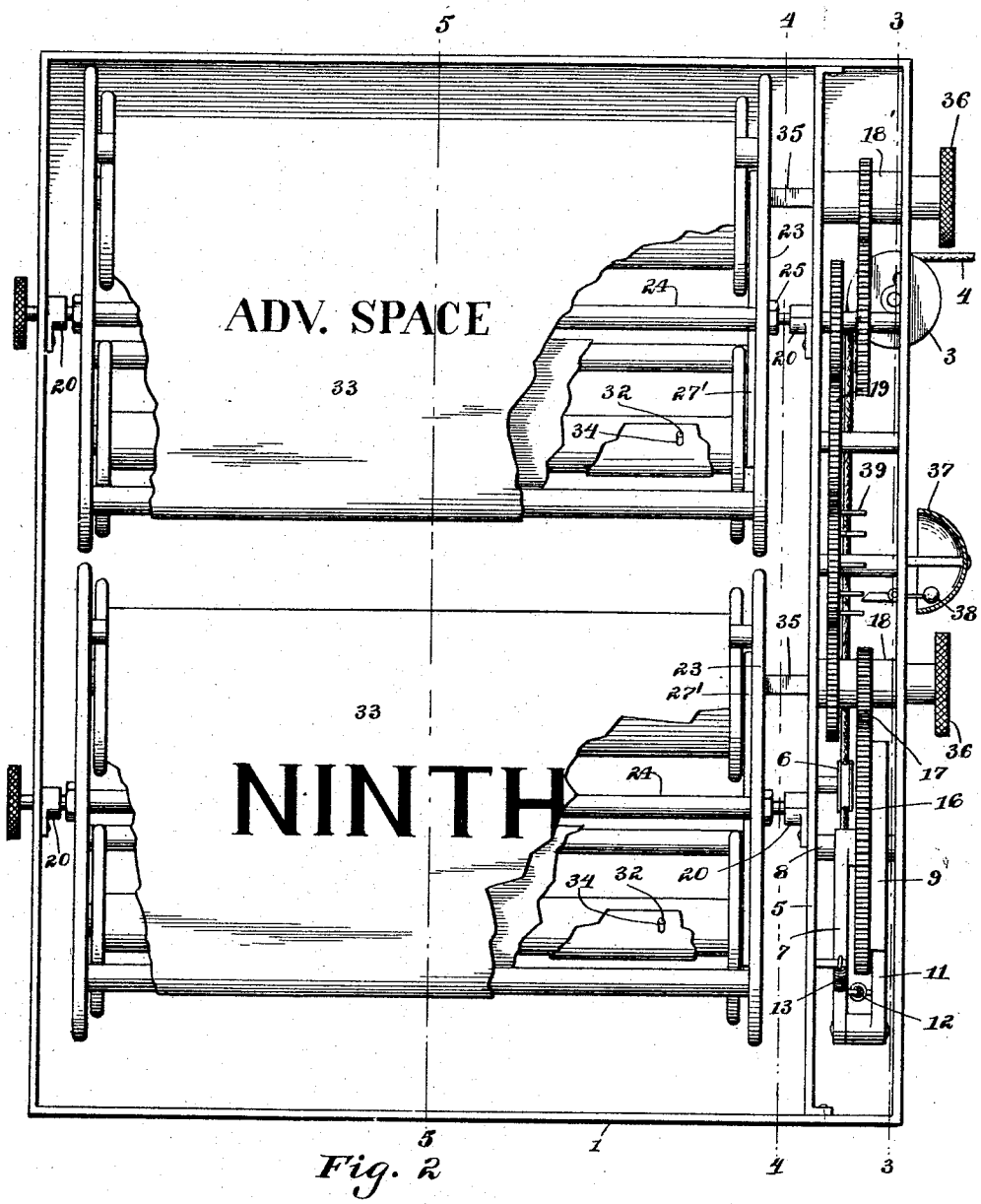


Fig. 2

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4 SHEETS—SHEET 3.

Fig. 4

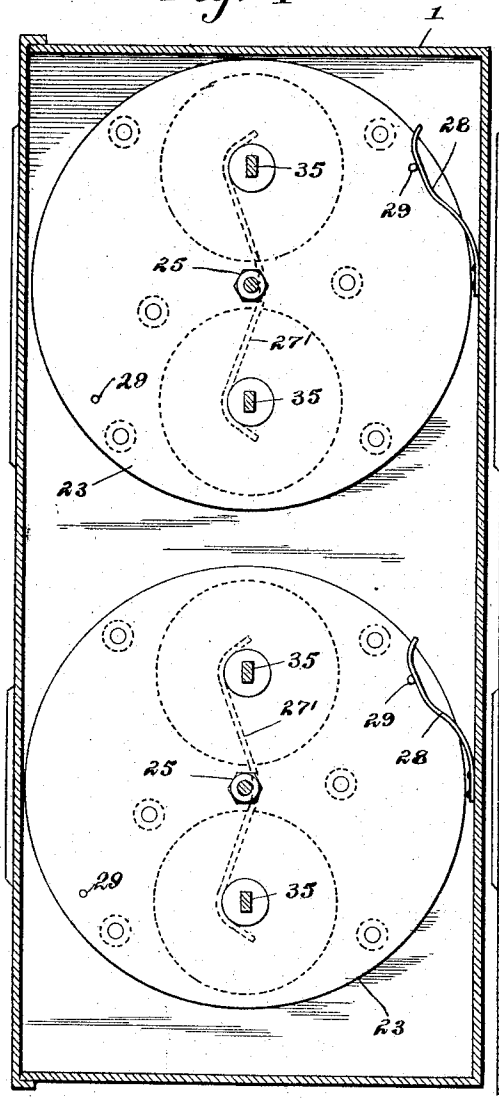
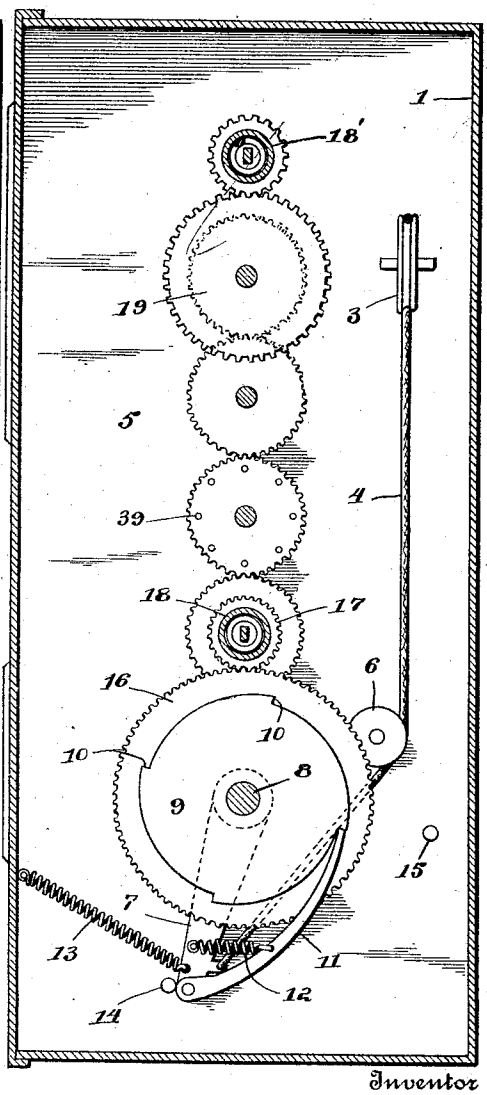


Fig. 3



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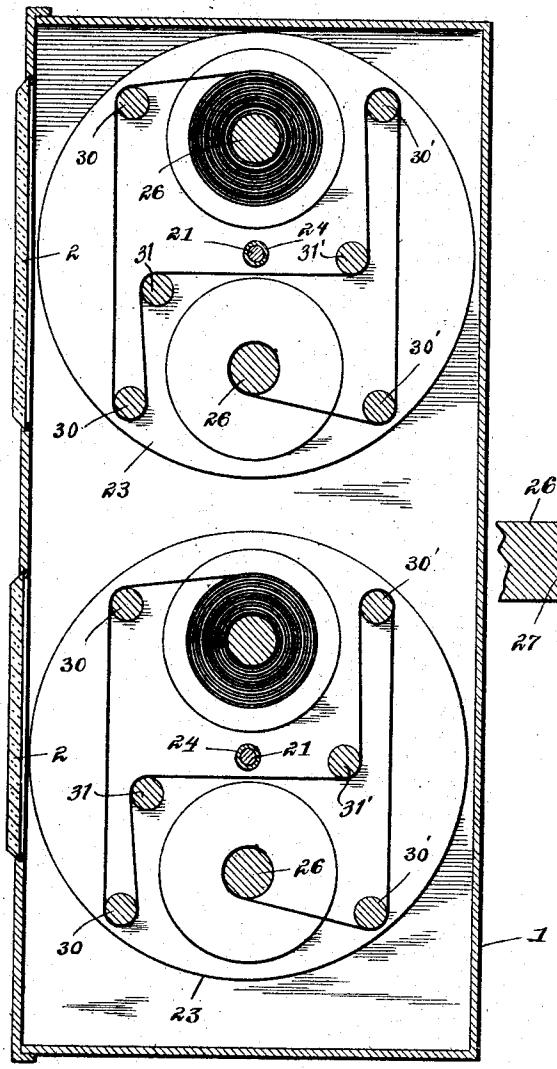


Fig. 5

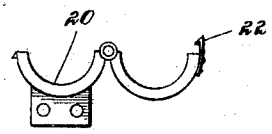


Fig. 6

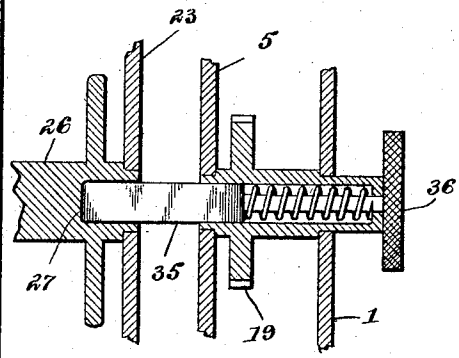


Fig. 7

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UNITED STATES PATENT OFFICE.

JOHN A. GREER, OF HUTCHINSON, KANSAS.

COMBINED STREET-INDICATOR AND ADVERTISING DEVICE.

1,223,270. Specification of Letters Patent. **Patented Apr. 17, 1917.**

Application filed January 17, 1916. Serial No. 72,560.

To all whom it may concern:

Be it known that I, JOHN A. GREER, a citizen of the United States, residing at Hutchinson, in the county of Reno and State of Kansas, have invented new and useful Improvements in Combined Street-Indicators and Advertising Devices, of which the following is a specification.

This invention relates to combined street indicators and advertising devices especially adapted to be used upon street and railway cars and it consists in the novel features hereinafter described and claimed.

An object of the invention is to provide an indicator and advertising device, such as stated, adapted to be manually operated to bring to view the names of streets in the successive order in which the car or vehicle crosses the same and at the same time to bring in view successively advertisements each of which refers to firms or business houses connected or associated in some manner with the streets which are simultaneously indicated.

With this object in view the device includes a casing adapted to be positioned at the upper portion of the end wall of a car and having two frames turnably mounted therein. A series of rollers are journaled upon each of the said frames and scrolls or strips of flexible material are arranged to wind upon and unwind from some of the said rollers and pass around others. Means are provided and adapted to be manually manipulated for turning the two rollers simultaneously upon which the scrolls or strips wind and the said means includes spring pressed retainers adapted to hold the frames at either of two positions whereby the winding rollers may be transformed from the rollers upon which the scroll or strips wind to rollers from which they unwind and vice versa. The casing is provided with sight openings through which the scrolls or strips and the legends and advertisements thereon may be viewed as they are brought to register with the said openings. The said scrolls or strips are trained about the other rollers in a manner that they have flat sections at the opposite sides of the frames and these sections are brought to register at intervals with the sight openings of the casing in order that the matter which is carried by the scrolls or strips may be viewed.

In the accompanying drawings:—

Figure 1 is a front elevation of the street indicator and advertising device.

Fig. 2 is a similar view with the front side thereof removed.

Fig. 3 is a transverse sectional view of the same cut on the line 3—3 of Fig. 2.

Fig. 4 is a similar view cut on the line 4—4 of Fig. 2.

Fig. 5 is a similar view cut on the line 5—5 of Fig. 2.

Fig. 6 is an edge elevation of a bearing used in the device.

Fig. 7 is a detailed sectional view showing a stud used in the device.

The device includes a casing 1 which is preferably of rectangular configuration and adapted to be supported at the upper portion of the end wall of a car or other vehicle. The casing 1 is provided at its front side with sight openings 2 which may be covered by panes of glass or other transparencies. A pulley 3 is journaled in an opening at one end of the side walls of the casing 1 and a cable 4 is trained over the said pulley. A partition 5 is located in the casing 1 in the vicinity of one of the end walls thereof but spaced from the same. A pulley 6 is journaled at one side of the partition 5 and the cable 4 is trained under the pulley 6 and is connected with an arm 7 which is loosely mounted upon a shaft 8 supported between and by the partition 5 and the adjacent end wall of the casing 1. A disk 9 is mounted for rotation on the axis of the shaft 8 and is located at the side of the arm 7. The said disk 9 is provided at its periphery with a series of outstanding shoulders 10. A pawl 11 is pivotally mounted at the free end portion of the arm 7 and a spring 12 is connected at one end with the pawl 11 and at its other end with the said arm and is under tension with a tendency to hold the free end portion of the pawl 11 in engagement with the periphery of the disk 9 and in contact with one of the shoulders 10 thereof. A spring 13 is connected at one end with the free end portion of the arm 7 and at its other end with the partition 5 and is under tension with a tendency to hold the free end of the arm 7 away from the pulley 6. Stops 14 and 15 are mounted upon the partition 5 and have end portions which project into the path of movement of the free end of the arm 7 and serves to limit the swinging move-

ment thereof. When a pull is exerted upon the cable 4 the free end portion of the arm 7 is brought into engagement with the stop 5 whereby the pawl 11 engages one of the shoulders 10 of the disk 9 and the said disk is partially rotated. When the pulling strain is removed from the cable 4 the tension of the spring 13 comes into play and the free end portion of the arm 7 is drawn back into engagement with the stop 14. A gear wheel 16 is fixed with relation to the disk 9 and meshes with a gear wheel 17 mounted upon a sleeve 18 which is journaled in the partition 5 and the adjacent end wall of the casing 1. A similar sleeve 18′ is journaled at the same side of the casing 1 as that at which the sleeve 18 is journaled and the said sleeves are operatively connected together for simultaneous rotary movement by means of a train of gear wheels 19. The gear wheels 19 are journaled upon suitable shafts or arbors supported between the partition 5 and the adjacent end wall of the casing 1. Bearings 20 are located at the inner surfaces of the partition 5 and the distal end wall of the casing 1 and the said bearings at the opposite end portions of the casing are in horizontal alinement with each other. The end portions of shafts 21 are held in the alined bearings 20. Inasmuch as the bearings 20 are of the same structure a description of one will suffice. Each bearing is made in two sections or halves which are hingedly connected together and one of the said sections is fixed with relation to the casing or the partition. The other section may swing and is provided at its free end with a catch 22 which is adapted to engage the edge portion of the fixed half or section whereby the said halves or sections may be held in closed position about the end of the shaft 21 which is received in the bearing.

Frames are turnably mounted upon the shaft 21 and as these frames are of the same structural arrangement a description of one will answer. Each frame comprises end disks 23 which are fixed to the end portions of a tube 24 journaled upon the shaft 21. Spacing washers 25 are interposed between the ends of the tube 24 and the bearings 20. Winding rollers 26 are journaled in the end disks 23 of each frame and the said rollers 26 are provided at their ends which are adjacent the partition 5 with sockets 27. When the frame is in one position the socket 27 of one roller 26 is in alinement with the sleeve 18 and when the frame is turned one half of a revolution the socket of the other roller 26 is brought into alinement with the said sleeve. This relation also exists between the sleeve 18′ and the rollers in the frame adjacent thereto. The end portions of the rollers 26 which are adjacent the partition 5 project through the disks 23 which are nearest the said partition and springs 27′ are mounted upon the tube 24 and bear against the sides of the said projecting end portions of the rollers 26 and frictionally hold the said rollers against turning movement except that turning movement which is positively imparted to them and which is hereinafter explained. Spring stops 28 are mounted at the back of the casing 1 and pins 29 are carried by those disks 23 which are nearest the partition 5 and the said pins are adapted to encounter the springs successively whereby the turning movement of the disk is temporarily checked or interrupted. When the disks are turned by the application of force the pins 29 may pass by the springs 28 inasmuch as the said springs will flex out of the paths of movement of the said pins. Rollers 30 and 31 and rollers 30′ and 31′ are journaled between the disks 23 of the same frame and these rollers are arranged in sets. In one set two rollers 30 are included and one roller 31. In the other set two rollers 30′ and one roller 31′ are included. One set of the rollers is located at one side of a line passing through the centers of the rollers 26 and the shaft 21 and the other set of rollers is located at the opposite side of the said line. The rollers 30 are spaced from each other and one of the said rollers is located near one of the rollers 26 and the other roller 30 is located near the other roller 26. The same location is observed with relation to the rollers 30′. The roller 31 is located between the rollers 30 and between a line passing through the centers of the rollers 30 and a line passing through the centers of the rollers 26. The same relation applies with respect to the location of the rollers 30′ and 31′ with respect to the rollers 26. The rollers 26 are provided upon their peripheries with pins 32. A scroll or strip 33 is provided at its ends with eyes 34 which engage the pins 32 upon the rollers 26. The said scroll or strip is wound upon one of the rollers 26 and is adapted to unwind from the same and may wind upon the other roller 26. From that roller 26 upon which the said scroll is wound it is trained around the proximal roller 30 then around the distal roller 30 then over the roller 31 located at the same side of a line which passes through the centers of the roller 26 as the rollers 30 just mentioned, then passing across the said line and under the roller 31′ at the opposite side of the said line, then around the roller 30′ which is proximal to the first-mentioned roller 26 and then around the other roller 30′ and then around the other roller 26. This arrangement of the scroll or strip is best illustrated in Fig. 5 of the drawing. By consulting the said figure it will be observed that the scroll or strip has on opposite sides of the line which passes through the centers of the rollers 26 flat portions or sections which

lie between the rollers 30—30 and 30′—30′. These flat sections or portions are adapted to be brought into register with openings 2 in the body 1 when the said scroll is unwound from one roller 26 and wound upon the other roller 26. Spring pressed studs 35 are slidably mounted in the sleeves 18 and 18′ and are adapted to enter the sockets 27 in the rollers 26 when the said sockets are brought into alinement with the said sleeves. The studs 35 are provided at their other ends with handles 36 which may be grasped whereby the said studs may be withdrawn from the sockets 27.

The operation of the device is as follows:—

Assuming that the scrolls are wound upon the lowermost rollers 26 and connected with the uppermost rollers 26 of each set of said rollers. When turning movement is imparted to the gear wheel 16 as hereinbefore described the said wheel through the intermeshing gear wheel 17 rotates the sleeve 18 which in turn through the train of gears 19 rotates the sleeve 18′. Inasmuch as the studs 35 are carried by the said sleeves and their inner ends are engaged in the alined sockets 27 of the adjacent rollers 26, the said rollers are turned whereby the scroll is moved longitudinally and a section of each scroll is moved in front of the corresponding sight opening 2 in the casing 1. One of the said scrolls carries advertising matter and the other scroll carries the names of different streets or localities. As the car or vehicle approaches the streets or localities the names thereof are brought to view and at the same time advertisements connected in some manner with the said streets or localities are presented to view. This operation is repeated until the vehicle arrives at the end of the route. At this time the scrolls or strips have been unwound from the lowermost rollers 26 and are wound upon the uppermost rollers. The operator then withdraws the studs 35 from the sockets 27 and turns the frames of which the disks 23 are a part so that the rollers which are carrying the scrolls are swung from upper positions to lower positions with relation to the shafts 21 and the ends of the studs 35 are permitted to enter the sockets 27 of the rollers 26 which are then uppermost with relation to the said shafts and upon which it is intended to wind the scroll upon the return trip of the car or vehicle. On the return trip the scrolls or strips are unwound from the lowermost rollers 26 and wound upon the uppermost rollers. When the car or vehicle is moving in one direction the flat portions of the scrolls or strips at one side of a line passing through the centers of the rollers 26 is presented to view and when the car is moving along the route in an opposite direction the flat portions or sections of the scrolls or strips around the rollers at the opposite sides of the said line are presented to view through the said openings 2.

Therefore, it will be seen that a simple and an efficient device is provided for exhibiting advertisements and for announcing or indicating streets. The device is further provided with a signal for attracting attention to the same when it is operated. The said signal comprises a bell 37 which is positioned at the side wall of the casing 1 and a hammer 38 is pivotally mounted within the casing and extends through the side of the same and is adapted to strike the bell. One of the gear wheels 19 is provided at its side with a series of outstanding pins 39 which are adapted to strike the end of the hammer 38 and vibrate the same whereby the hammer is caused to strike the bell and sound an alarm or signal. This will attract the attention of the passengers upon the vehicle so that they will observe the advertising matter and also observe the name of the next street which the vehicle is approaching. It is to be understood that the device is manually operated by an employee or person having charge of the vehicle.

Having described the invention what is claimed is:—

A device of the character described, comprising a casing having a sight opening, a rack journaled in the casing, rollers journaled in the rack and provided at their ends with sockets, a scroll arranged to unwind from one of the rollers and wind upon the other roller, and means for turning the roller upon which the scroll is wound comprising a spring pressed stud engageable in the socket of the roller upon which the scroll is wound the said rack adapted to be turned whereby either of the rollers may be engaged with the stud.

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

JOHN A. GREER.

Witnesses:
R. C. Brown,
W. G. Brown.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."