W. H. SMITH.

STREET OR STATION INDICATOR.

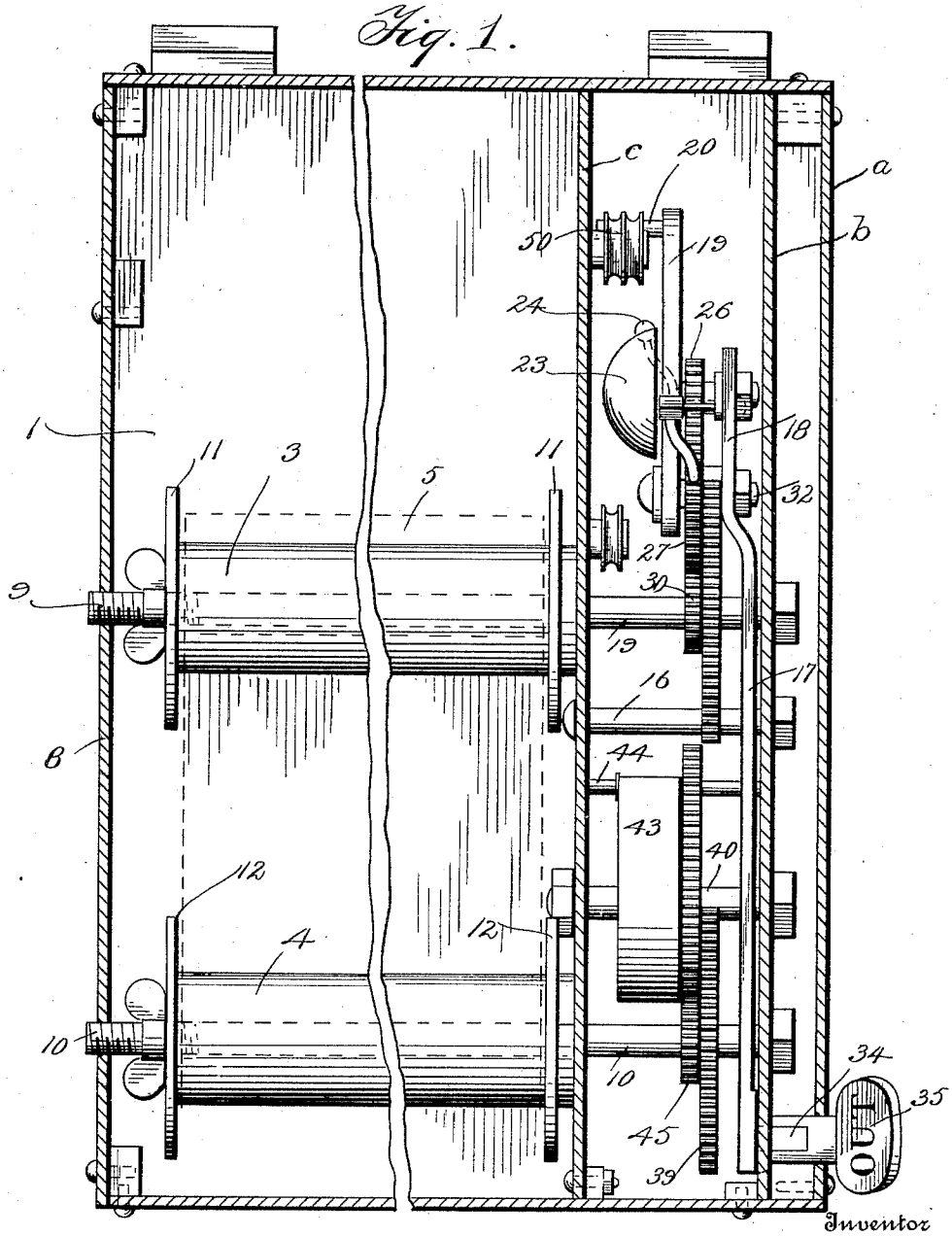
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1,068,179.

Patented July 22, 1913.

2 SHEETS—SHEET 1.

Fig. 1.



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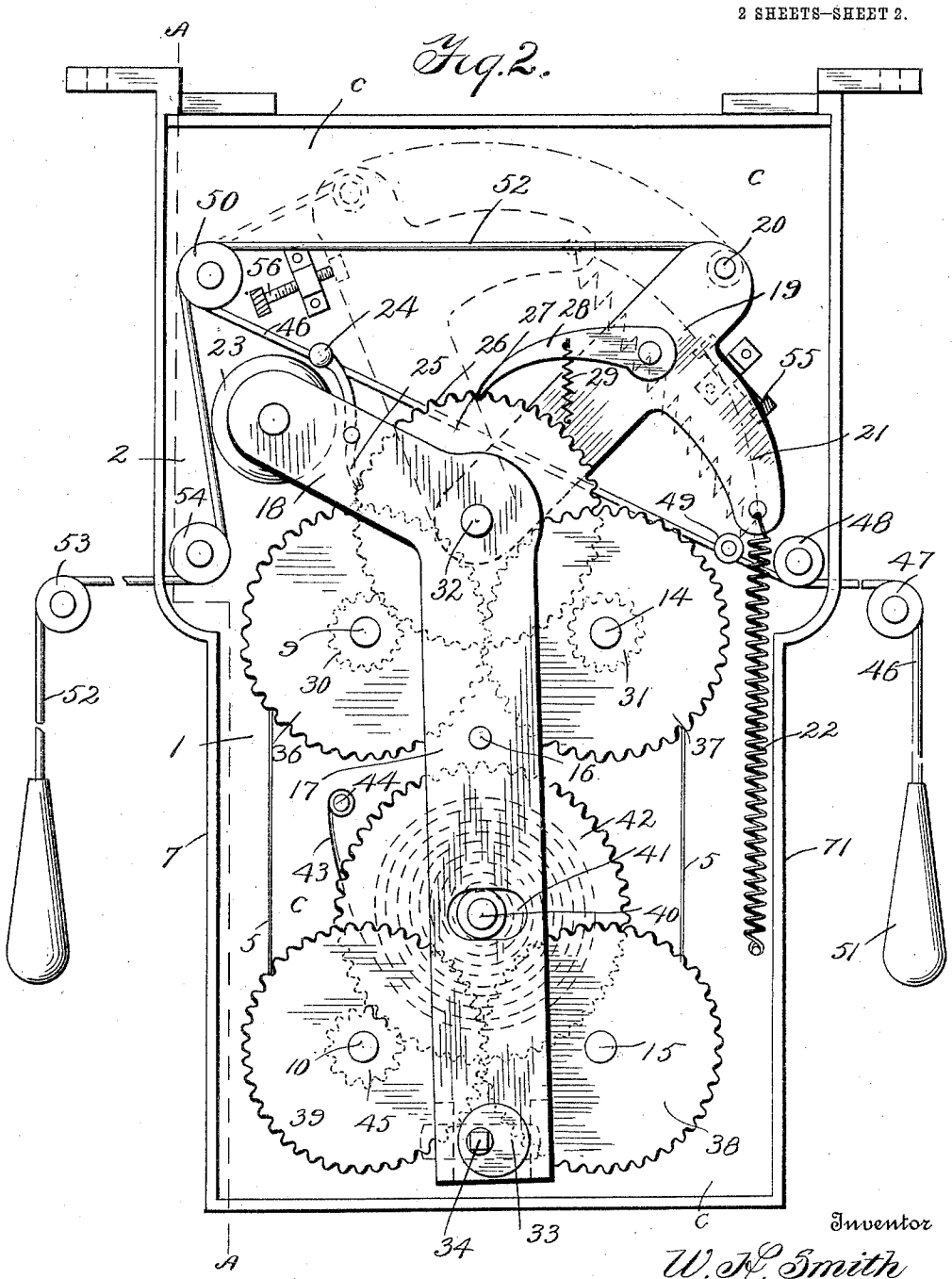
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2 SHEETS—SHEET 2.

Fig. 2.



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UNITED STATES PATENT OFFICE.

WILLIAM HENRY SMITH, OF PITTSBURGH, PENNSYLVANIA.

STREET OR STATION INDICATOR.

1,068,179. Specification of Letters Patent. Patented July 22, 1913.

Application filed April 5, 1911. Serial No. 619,078.

To all whom it may concern:

Be it known that I, WILLIAM HENRY SMITH, citizen of the United States, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Street or Station Indicators, of which the following is a specification.

This invention relates to improvements in street or station indicators and has for its object to provide a simple inexpensive indicator to be used on street and railway cars.

With the above and other objects in view, I have invented the indicator illustrated in the accompanying drawings in which,

Figure 1 is a vertical sectional view taken on line A—A of Fig. 2, and Fig. 2 is a side elevation of the plates.

Referring to the accompanying drawings 1 is a casing having its upper part enlarged to accommodate the operating mechanism for rotating the two sets of spools 3 and 4 which carry the belts 5 on which the names of the streets or stations are printed. Openings 6 are provided in the front and rear walls 7 and 7′ for exposing the station signs as the belts 5 are moved.

Partitions *b* and *c* are located within the casing 1 and openings therein and in the side wall 8 of the casing form bearings for the spool and other shafts which support the operating mechanism. Mounted in openings in the wall 8 and in the partitions *b* and *c* are shafts 9 and 10, 14 and 15. Mounted on these shafts are the spools 3 and 4 which carry the belts 5. Flanges 11 and 12 on the spools keep the belts in a straight line.

Pivotally mounted on the shaft 16 is a lever member 17 which is provided with an angularly disposed end 18. To the upper vertical part of the member 17 is pivotally connected a member 19 which is provided with a pin 20 (shown dotted). A curved arm 21 has fastened to its extreme end, one end of a spiral spring 22, the other end of which is fixed to the casing *c* by means of which said member 19 is normally held in a lowered position. Secured to the extreme end of the angular arm 18 is a bell 23 which is adapted to be rung by a tapper 24 pivoted to the member 18 and the lower end 25 of which engages the cogs 26 on the wheel 27. On the member 19 is pivoted a dog 28 which engages the cogs 26 and is held in engagement therewith by the spring 29.

On the shafts 9 and 14 are pinions 30 and 31 either one of which may be engaged by the gear wheel 27 which is pivotally mounted on the shaft 32 which is fixed to the upper part of the lever member 17. In the lower end of the member is rotatably mounted a cam wheel 33 having a square post 34 which projects through the partition *b* and is operable by means of the key 35. As the key throws the lever from side to side the gear wheel is shifted from one to the other of the pinions 30 and 31 for rotating the shafts 9 or 14 from one to another direction and which through the means of the belts 5 rotate the shafts 10 or 15 as the case may be. Fixed to the pinions 30 or 31 are gears 36 and 37 which mesh with one another so that as the belts 5 are rolled upon one spool they are unrolled from the other spool. Gear wheels 38 and 39 are mounted on the shafts 10 and 15 and mesh with one another so that when one shaft rotates all of the spool bearing shafts rotate.

On the shaft 40, one end of which is mounted in the slot 41 which may be shifted on the shaft, is fixed a gear wheel 42 to which is fixed one end of a clock spring 43, the other end of which is fixed to the pintle 44, this gear wheel 42 meshes with a pinion 45 fixed to the gear 39. When the belts 5 are being wound on the upper spools, the pinion 45 rotates the gear 42 causing the spring 43 to wind up and when the belts are unwound from the upper spools the tension of the spring causes the rotation of the gears 42, which rotates the gear 39 through the pinions 45, which rotates the gear 38 thus winding the belts upon the lower spools. This spring 43 is very strong and its action upon the gears causes the belts to be held stretched at all times.

A cord 46 passes over the pulley 47, under the guide rollers 48 and 49 and over the double pulley 50 and is secured to the pin 20 on the member 19. A weighted handle 51 is secured to the end thereof. On the other side of the device a cord 52 passes over the pulley 53 through an opening in

the side wall 7, around the pulley 54 and over the double pulley 50 and is secured to the pin 20. When either of these cords is drawn the member 19 is drawn toward the wall 7, the dog 28 thereon rotating the gear wheel 27, which in turn rotates the gear 36 or 37 through the medium of the pinion 30 or 31 as the case may be.

The space over which the member 19 may travel is regulated by the stop screws 55 and 56, thus the length of belt moved is regulated. When the direction in which a car is moving is changed all that is necessary to be done to reverse the movement of the indicator belts is to shift the lever member by turning the key 35, when the connection of the gear 27 from one to the other of the pinions 30 and 31 is changed.

I claim and desire to secure by Letters Patent:—

In combination a station indicator comprising a casing, two upper and two lower intergeared reels, belts each engaging an upper and a lower reel, a pinion carried by each upper reel, a pinion carried by one lower reel, a shifting gear adapted to alternatively engage with said upper pinions, means for rotating said shifting gear and a spring actuated gear arranged to engage said lower pinion to rotate the same.

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

WILLIAM HENRY SMITH.

Witnesses:

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