(No Model.) 2 Sheets—Sheet 1.

A. BAKER.

STATION INDICATOR.

No. 521,359. Patented June 12, 1894.

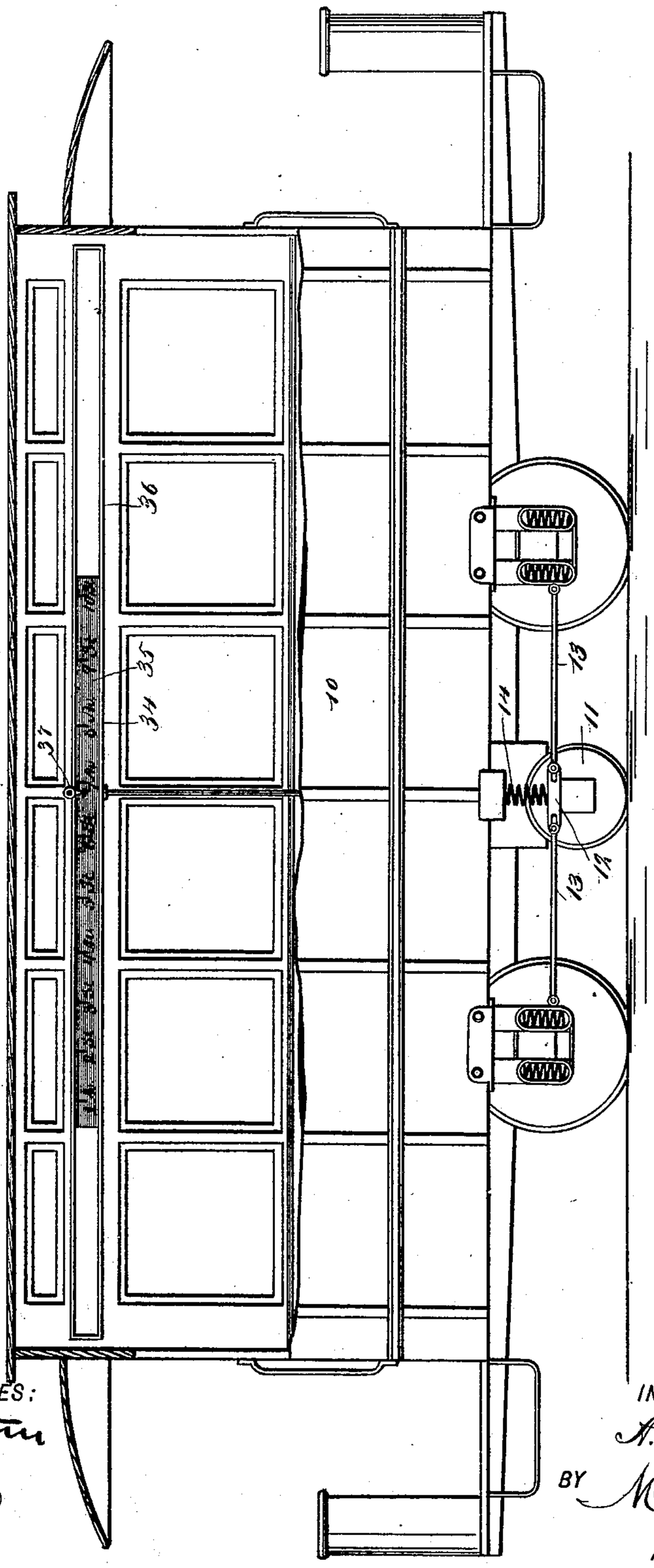

Fig. 1

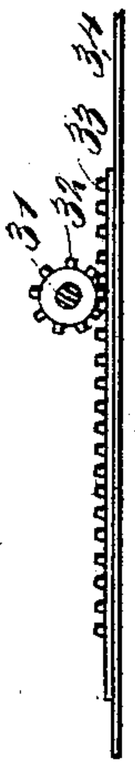

Fig. 2

WITNESSES:
J. a. Bergstrom
C. Sedgwick

INVENTOR
A. Baker
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ATTORNEYS.

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(No Model.) 2 Sheets—Sheet 2.

A. BAKER.

STATION INDICATOR.

No. 521,359. Patented June 12, 1894.

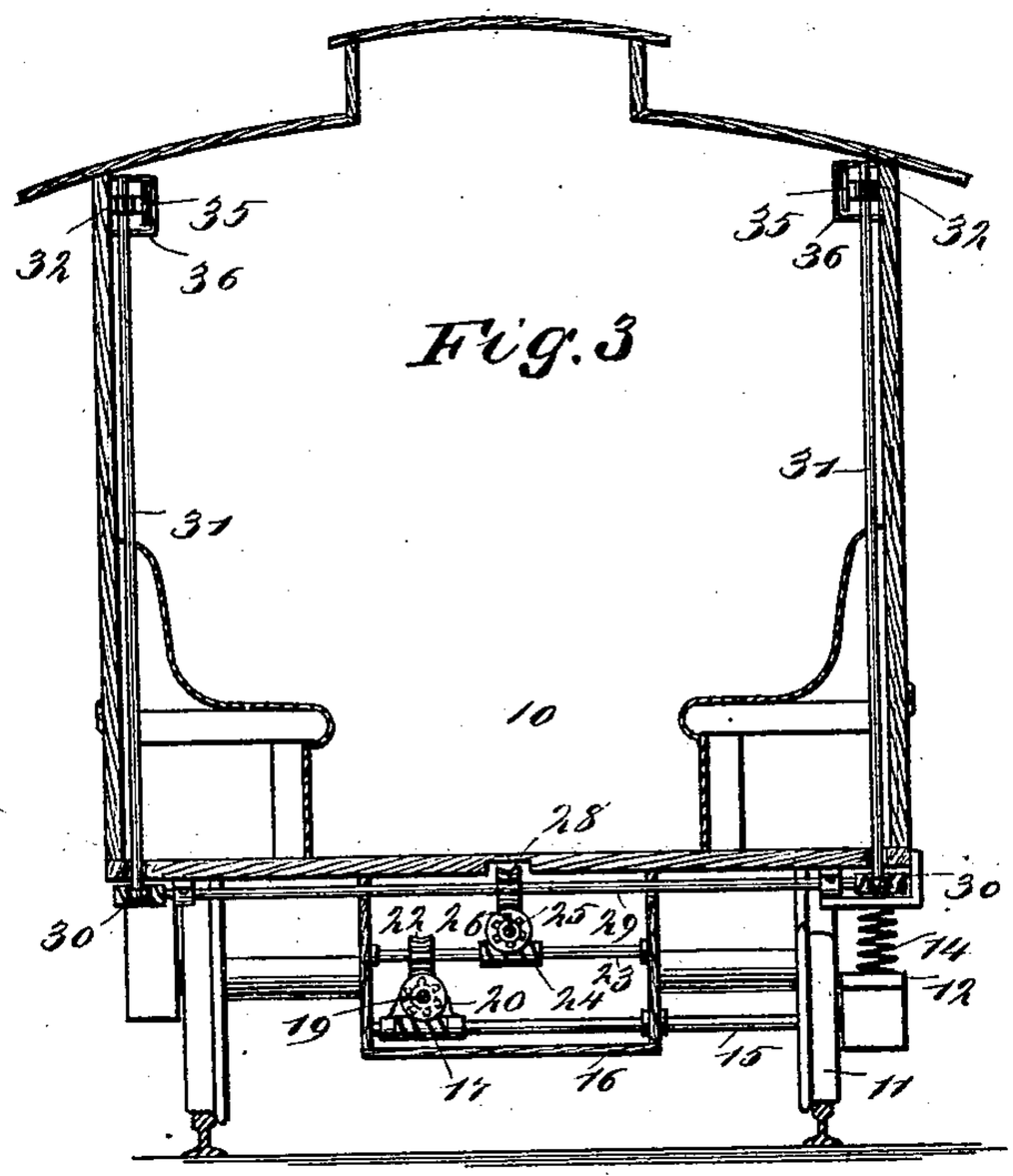
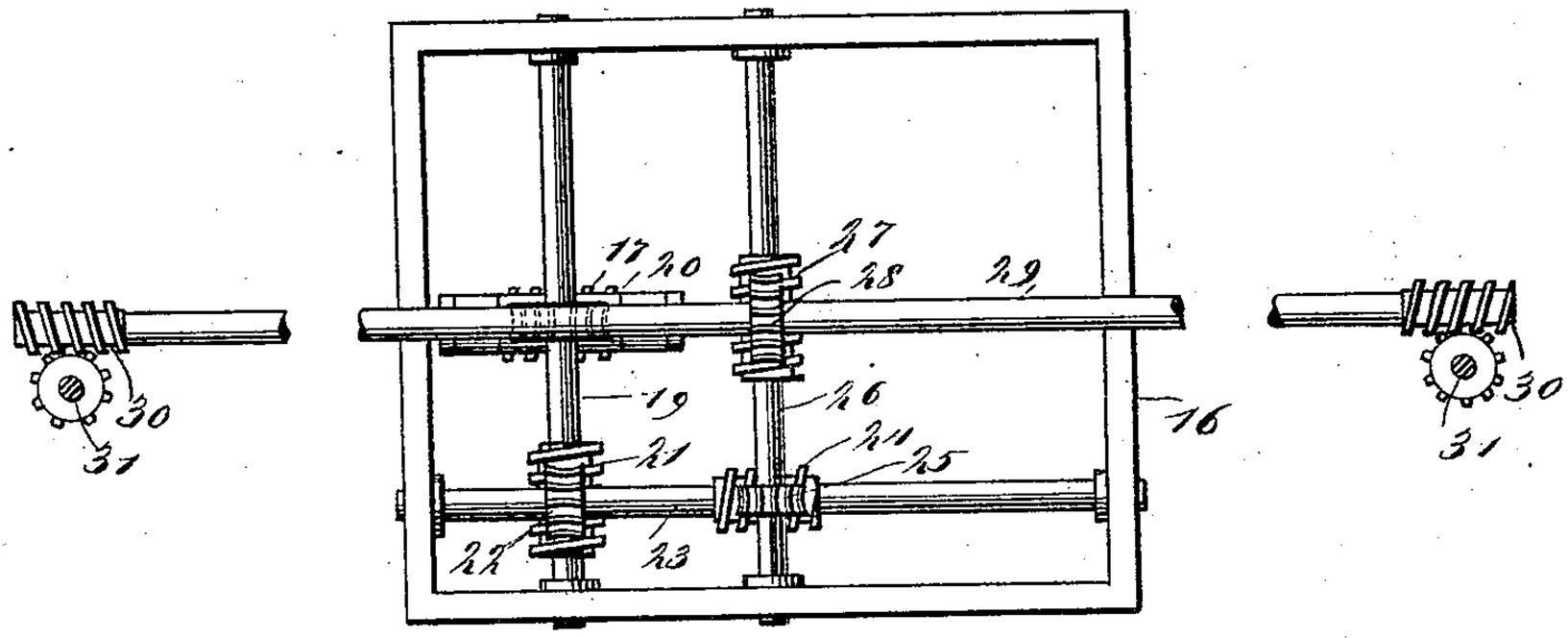


Fig. 4



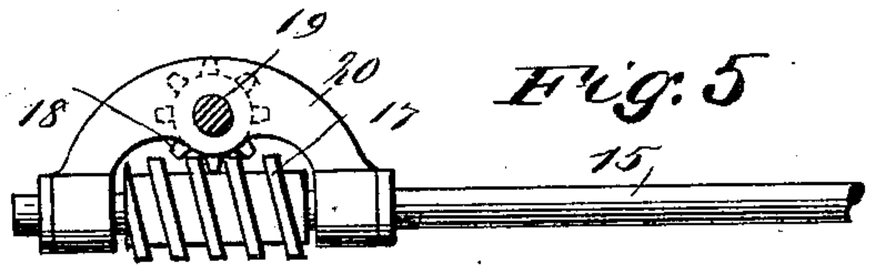


Fig. 5

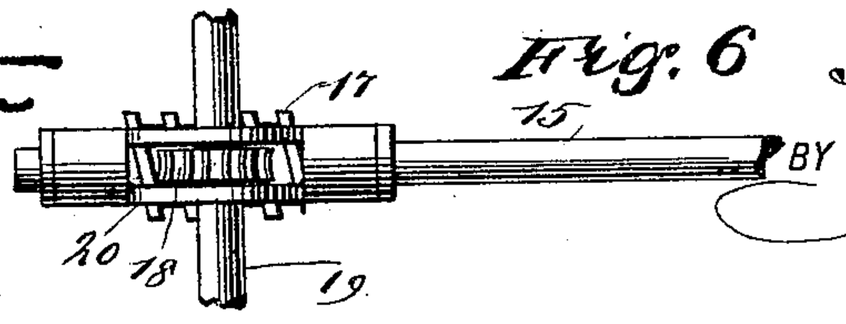


Fig. 6

WITNESSES:

J. a. Bergstrom

C. Sedgwick

INVENTOR

A. Baker

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ATTORNEYS.

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UNITED STATES PATENT OFFICE.

ARTEMAS BAKER, OF LANCASTER, TEXAS, ASSIGNOR OF ONE-HALF TO ARTEMAS PHELPS, OF SAME PLACE.

STATION-INDICATOR.

SPECIFICATION forming part of Letters Patent No. 521,359, dated June 12, 1894.

Application filed July 11, 1893. Serial No. 480,111. (No model.)

To all whom it may concern:

Be it known that I, ARTEMAS BAKER, of Lancaster, in the county of Dallas and State of Texas, have invented a new and Improved Station-Indicator, of which the following is a full, clear, and exact description.

My invention relates to improvements in that class of devices which are adapted to be applied to cars of all kinds to indicate the stations at which the cars stop, or in case of street cars the various streets which the cars cross; and the object of my invention is to produce an automatic apparatus of this kind which is worked by the movement of the car and in which a map is employed, which is moved in such a way that the various points at which the car stops will always be correctly indicated.

In carrying out my invention, a map is held in a rigid slidable frame, and it may be made as elaborate as desired, even to the names and locations of the various counties, towns, &c., and the principal points along the line are marked conspicuously and pointed out automatically by the moving of the train, so that a passenger is always aware of his exact location and may readily ascertain the next stopping place.

My invention may also be used for advertising purposes if desired, different advertisements being displayed upon every shifting map.

To these ends, my invention consists of certain features of construction and combinations of parts, as will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is in part a side elevation and in part a longitudinal section of a car provided with my improved indicating apparatus. Fig. 2 is a detail sectional plan view of the gear mechanism, connecting the map frame with its actuating shaft. Fig. 3 is a cross section of the car and my improved attachments thereon. Fig. 4 is a broken plan view of the gear mechanism located beneath the car and adapted to drive the map. Fig. 5 is a detail side elevation, partly in section, of the connection between the main driving shaft and the adjacent screw shaft; and Fig. 6 is a plan view of the mechanism shown in Fig. 5.

The car 10 may be of any usual kind, and it is provided with a driving wheel 11 to operate the indicating apparatus, which wheel is adapted to run upon the track and is provided with a yoke 12 on the top of its bearing box, which pivotally connects with braces 13 by which the wheel and its shaft are held in position. The wheel is pressed downward into firm contact with the track rail by a spring 14 arranged above its box. The wheel 11 drives a shaft 15 to which it is secured, and the shaft extends inward into a casing 16 beneath the car and is provided with a screw 17 which engages a gear wheel 18 on a shaft 19, arranged at right angles to the shaft 15 and near the inner end of the latter shaft, the shaft 15 being connected with the shaft 19 also by a stirrup 20 which permits the necessary oscillating movement of the shaft 15 and holds the two shafts with their screw and gear wheels in connection. The shaft 19 is also provided with a screw 21 which engages a worm wheel 22 on a shaft 23, which is journaled in the case 16 parallel with the shaft 15 and at right angles to the shaft 19. The shaft 23 is provided with a screw 24 meshing with a worm wheel 25 on a shaft 26, which is arranged at right angles to the shaft 23 and parallel with the shaft 19, and the shaft 26 has also a screw 27 meshing with a worm wheel 28 on the shaft 29 which extends across the car beneath the floor and close to the same, the shaft projecting outward through opposite sides of the casing 16. The shaft 29 connects by a suitable worm gear 30 at each end with vertical shafts 31 which project upward into the car and along the sides of the same, the shafts having, at their upper ends, pinions 32 which engage rack bars 33 on the backs of the map frames 34, in which maps 35 are carried, see Fig. 1, and these maps and frames are preferably inclosed in casings 36 having open sides through which the maps may be observed, but the casings may be dispensed with if desired. The maps 35 are marked off at appropriate intervals to indicate the names of stations, streets, &c., and it will be readily understood that the scale of

the maps must depend on the gearing which drives them and the distance between stations or streets.

The gear which I have shown for driving the maps is arranged so as to greatly reduce the speed and it therefore takes very many revolutions of the wheels 11 to move the maps a trifling distance, and it is obvious that this connecting gearing may be made to reduce the speed to any desired extent and that different forms of driving mechanism may be employed without departing from the principle of my invention.

It will be seen that the apparatus will work equally well whichever way the car travels, and it will be understood that the gearing may be adjusted so that at every station or street the name of said street or station, or some other mark designating it, may be made to appear directly opposite an indicating hand 37 which is shown clearly in Fig. 1 and which extends opposite the map.

It will be further observed that the up and down movement of the car will not affect the driving apparatus, as the spring 14 permits the necessary movement of the shaft 15. When the car moves, the wheel 11 is rotated by its friction on the track, and it imparts a rotary movement to the shaft 15 and all the connected shafts are very slowly moved and the maps 34 are driven, as described, so that at each station the name of the station appears opposite the pointer 37, as specified.

It will be understood that while I have shown one map frame in each side of a car, any desired number of them may be used and they may be arranged in any convenient rotation.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with a car, of a rigid map frame slidably mounted in a guide way arranged in the side of said car, a map carried by the frame and provided with the names of stations, a pointer or indicator opposite the map, a spring-pressed wheel journaled beneath the car and adapted to run upon the track, and a gear connection between the wheel and the map frame whereby the revolution of the wheel slides the frame, substantially as described.

2. The combination, with a car, of a map frame held to slide therein, a map carried by the frame and provided with the names of stations, a pointer or indicator opposite the map, a rack bar on the map frame, a vertical shaft mounted in the car and geared with the map frame, a wheel journaled beneath the car and running on the track, and an operative gear connection between the wheel and the vertical shaft, substantially as described.

ARTEMAS BAKER.

Witnesses:
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WILL. MCCURDY.