

G. L. Bailey

Railroad Switch.

N^o 79,940.

Patented Jul. 14, 1868.

Fig. 1.

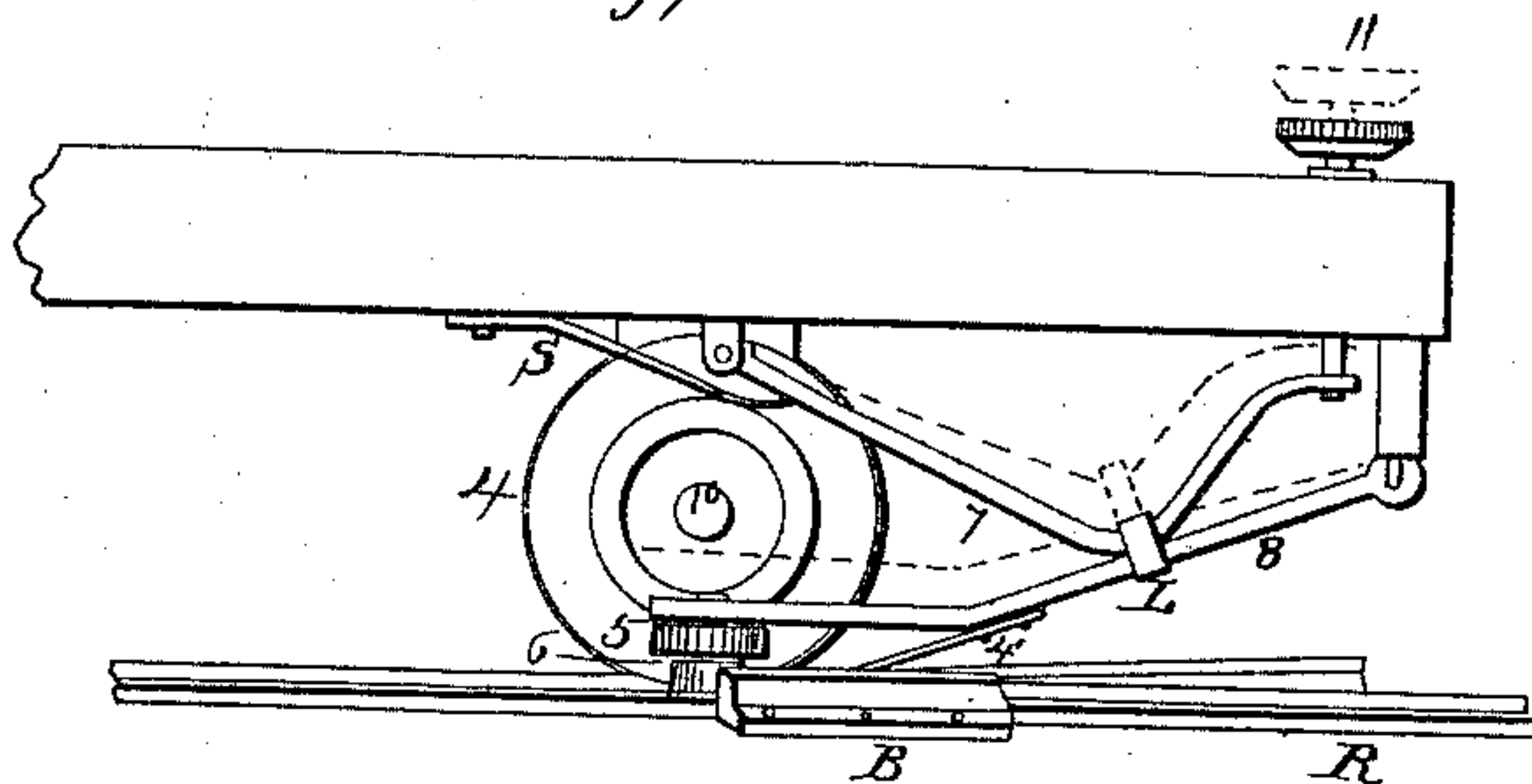


Fig. 3.

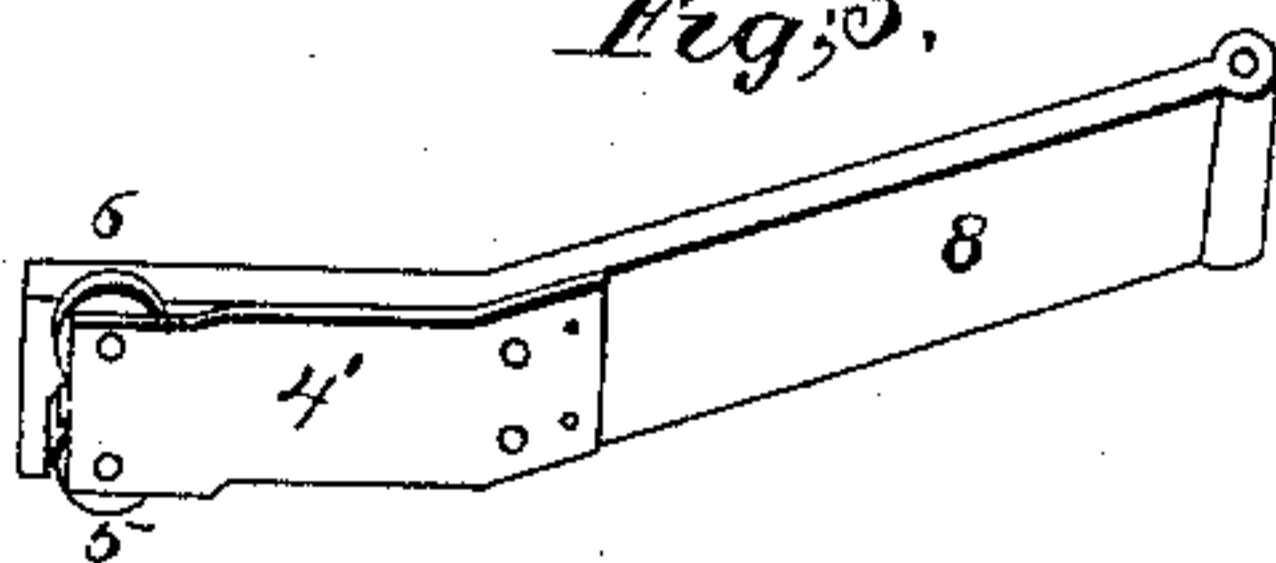
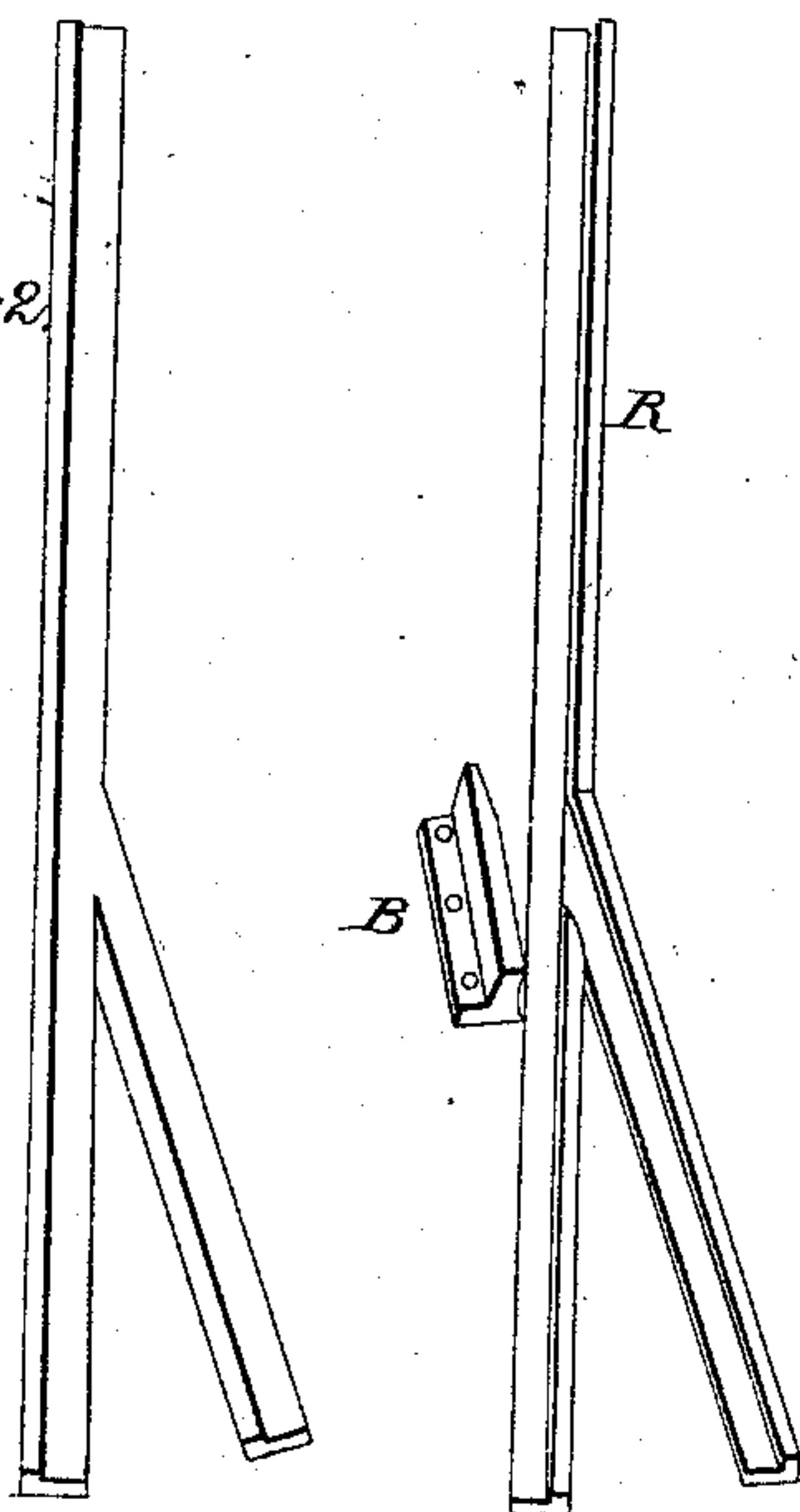


Fig. 2.



Witnesses;
Joseph W. Akey
Wm. H. Bowne

Inventor;
Gilbert L. Bailey

UNITED STATES PATENT OFFICE.

GILBERT L. BAILEY, OF PORTLAND, MAINE.

IMPROVED SWITCH FOR STREET-RAILROADS.

Specification forming part of Letters Patent No. 79,940, dated July 14, 1868.

To all whom it may concern:

Be it known that I, GILBERT L. BAILEY, of Portland, in the county of Cumberland and State of Maine, have invented a new and useful Improvement in Switches for Horse-Railroads; and I do hereby declare that the following is a full, clear, and exact description of the same, which will enable others skilled in the art to make and use it, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side elevation of the forward part of a car-frame, with one wheel removed, and also one rail of the track, showing my invention. Fig. 2 is a plan view of the main and branch tracks, and Fig. 3 is a perspective view of one of the levers used and one mode of attaching friction-rollers thereto.

The same figures and letters refer to like parts.

My invention has for its object to furnish a simple and convenient means by which a car can be guided in passing from the main to a branch track with the minimum of friction by the driver while standing in his place on the car.

It consists in the combination of friction-rollers with a lever or levers acting in conjunction with the car-wheel and a guide-rail, said levers being suspended from the car-frame and operated by the foot of the driver or other person.

Its construction and operation are as follows:

9 represents the car-frame and 4 the car-wheel. 5 and 6 are friction-rollers centered on a stud projecting downward from lever 8. This stud is supported at the lower end by brace 4', also attached to lever 8, which is itself hinged to a bracket fixed to the bottom of the car, near the front end.

7 is a bent lever, hinged at one end to the bottom of the car near the wheel, and at the other end connected with upright rod 11, which passes up through the bottom of the car, near the driver, and has a head on its upper end. Lever 7, at the point of its greatest bend, rests on the upper side of lever 8, and is loosely connected therewith by loop L, so that when the two rise or fall one or the other will slip through the loop freely.

B is a guide-rail, slightly elevated above and placed between the main rails near and opposite to the junction of the outside branch rail with the main rail and nearly parallel with said branch rail, as shown in Fig. 2.

A dovetail is made on the side next the wheel of the guide-rail, and friction-roller 6 is made with a corresponding bevel. The guide-rail may be cast with the frog or may be put down separately.

When not in use, levers 8 and 7 occupy nearly the position indicated by the dotted lines, bringing the rollers close under the axle 10 of the car-wheels, and are held there by spring S, which is attached by one end to the bottom of the car, thus avoiding obstacles that may be between the rails.

Its operation is as follows: As the car approaches the turn-out the driver presses with his foot upon the head of upright rod 11, which depresses levers 7 and 8, carrying the friction-roller 6 down to the web of the rail, and when the branch track is reached said roller enters between guide-rail B and the car-wheel, as shown in Fig. 1, rolling on the side of said guide-rail, while roller 5, which is a little larger in diameter, bears against and rolls upon the side of the car-wheel, thus crowding the wheel from the main to the branch track. When the foot of the driver is removed the levers return by the operation of spring S to their former position.

Fig. 3 is a modification of lever 8, in which the friction-rollers are placed side by side, and are made of equal size, the one next the guide-rail being beveled, as described, to prevent its riding over the rail.

The advantages of this switch over others are its simplicity and cheapness, the small amount of friction attendant on its operation by the use of friction-rollers, the facility with which it can be applied, and the fact that no important change from an ordinary turn-out frog is necessary, no depressed or raised parts being required in the track. Lever 8 is bent near its lower end, in order that the rollers may act in a horizontal plane, or nearly so.

I do not claim a dovetailed or beveled guide-rail, nor a beveled guide wheel or roller in themselves, for these have been used before; but,

Having described my invention, what I claim is—

The construction and arrangement of the spring S, levers 7 and 8, friction-rollers 5 and 6, and treadle 11, all substantially as and for the purposes described.

GILBERT L. BAILEY.

Witnesses:

JOSEPH W. AKERS,
WM. H. BOWNE.