No. 706,266. Patented Aug. 5, 1902.

G. H. SMITH.

SWITCH.

(Application filed Sept. 25, 1901.)

(No Model.)

FIG. 1.

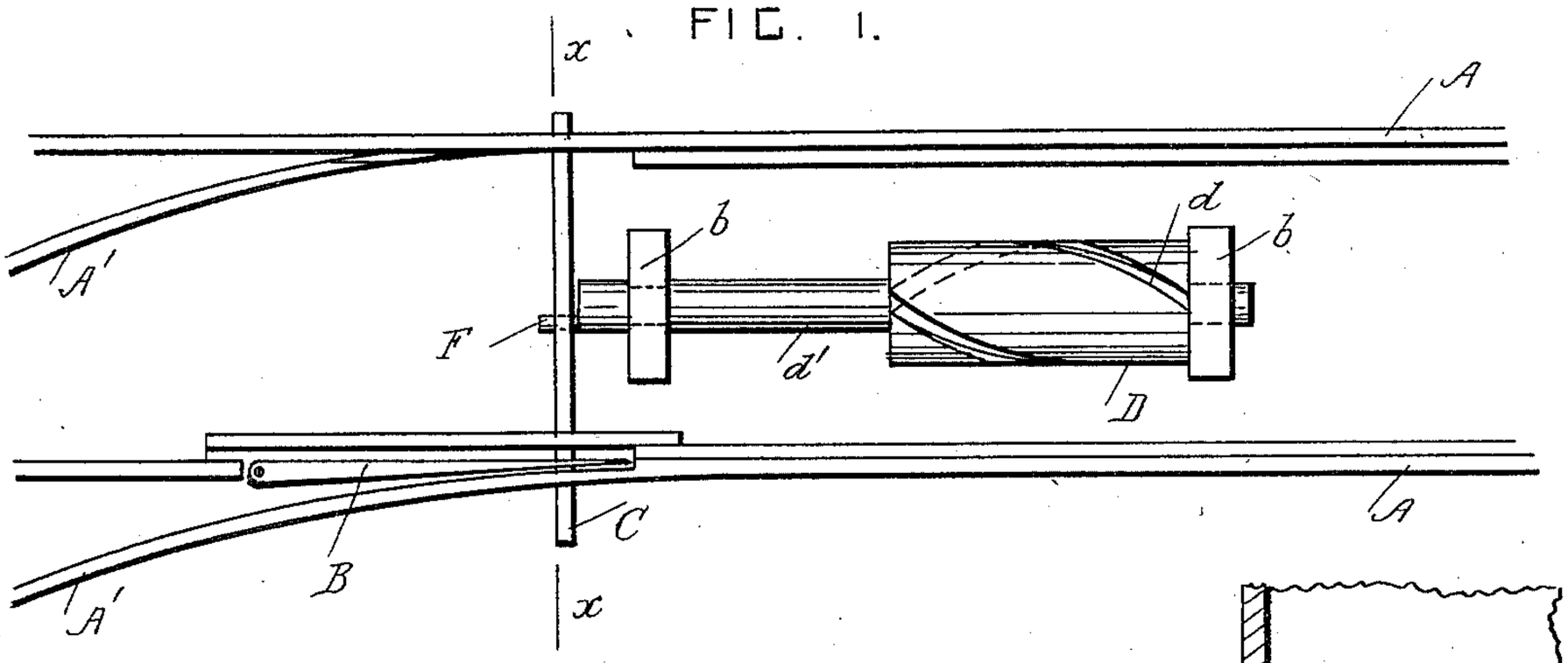


FIG. 2

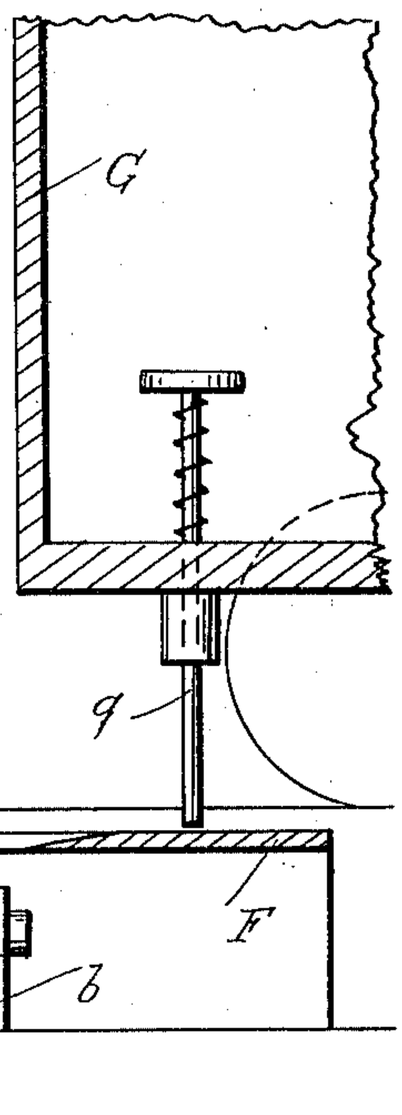
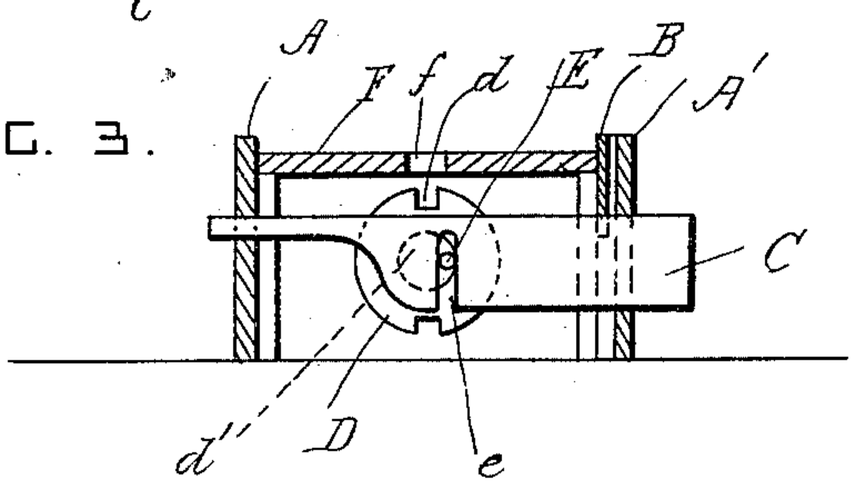


FIG. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

GEORGE H. SMITH, OF BOSTON, MASSACHUSETTS.

SWITCH.

SPECIFICATION forming part of Letters Patent No. 706,266, dated August 5, 1902.

Application filed September 25, 1901. Serial No. 76,543. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. SMITH, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Switches; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to switches; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a plan view of the switch with the cover removed. Fig. 2 is a longitudinal section through the switch. Fig. 3 is a cross-section taken on the line *x x* in Fig. 1.

A represents the main rails, and A′ represents the rails of the siding.

B is the pivoted point which determines the path of the street-car.

C is the point-bar, which is connected to the point B and which is slidable in suitable guides crosswise of the rails. The rails themselves form the guides for the bar C in the arrangement shown in the drawings; but separate guides may be provided, if desired.

D is a cylinder provided with a spiral groove *d* and mounted on a shaft *d′*. The cylinder D is arranged longitudinally between the rails A, and its shaft *d′* is journaled in bearings *b*.

E is a crank-pin at one end of the shaft *d′*, which engages with a slot *e* in the point-bar C, so that the point-bar and the point are operated when the cylinder is partially revolved.

F is a cover-plate provided with a longitudinal slot *f* and arranged over the cylinder D. The ends of the groove *d* in the cylinder are arranged to come in line with each other at the opposite sides of the cylinder.

G is a portion of a street-car which runs on the rails. This street-car is provided with a depressible switch-bar *g* of approved construction. In the drawings this switch-bar is shown supported by a spring. When the switch-bar is not depressed, the car runs over the main rails without entering the siding. When the car is to be switched into the siding, the switch-bar is depressed with the foot as the switch is approached. The lower end of the switch-bar bears on the cover-plate and slips through its guide-slot *f* into one end of the groove of the cylinder. The cylinder is revolved half a revolution by the switch-bar as the car passes over the cylinder, and the point is thereby reversed, so that the car enters the siding instead of proceeding along the main rails. The pressure of the foot is removed as soon as the cylinder has been operated and the switch-bar is raised out of the slot by means of its spring.

What I claim is—

The combination, with a switch-point, and a point-bar engaging with it and provided with a slot at its middle part; said slot being arranged vertically and open at the lower edge of the said bar of a spirally-grooved cylinder provided with a shaft and journaled longitudinally between the rails, a crank-pin projecting from one end of the said shaft and engaging with the said slot of the point-bar, and a switch-bar carried by the car and engaging with the said cylinder, substantially as forth.

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

GEORGE H. SMITH.

Witnesses:

ALICE J. MURRAY,

FREDK. K. DAGGETT.