

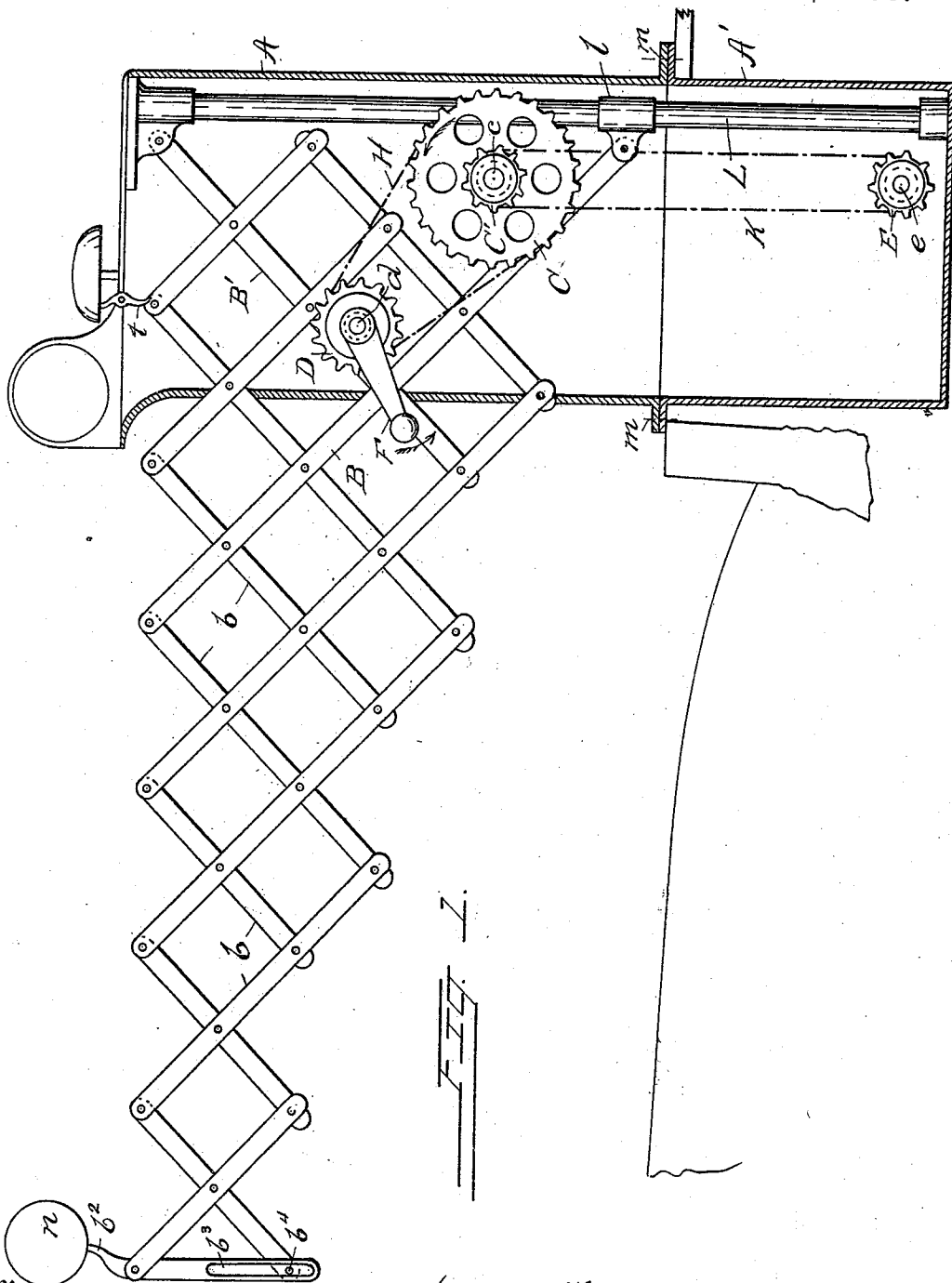
(No Model.)

2 Sheets—Sheet 1.

G. W. PHILLIPPI.
SAFETY GATE FOR RAILROAD CROSSINGS.

No. 551,001.

Patented Dec. 10, 1895.



Witnesses

Oscar D. Kelly.
Marie Kelly

George W. Phillippi, Inventor

By Attorney

E. A. Kelly.

(No Model.)

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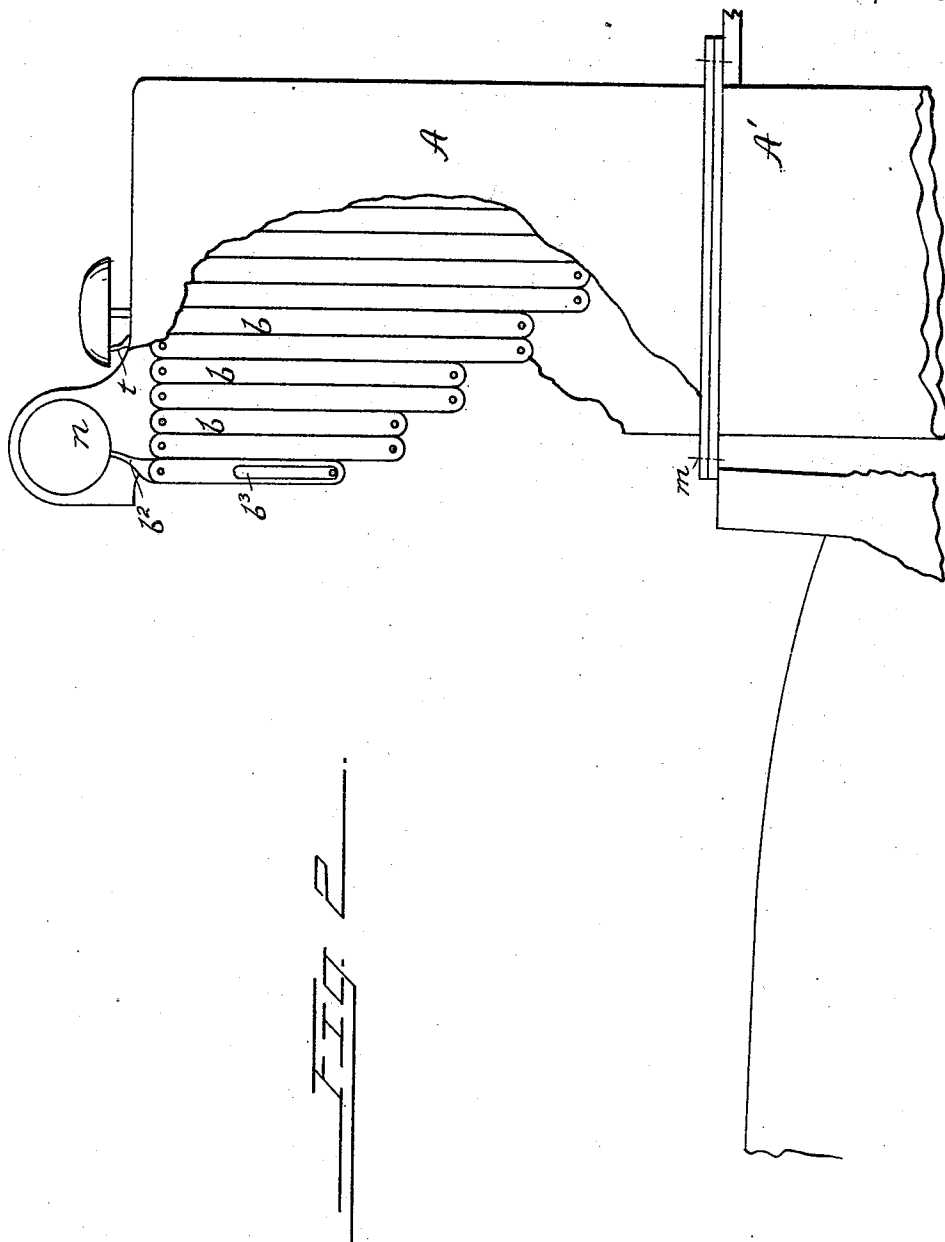


FIG. 2

Witnesses

Oscar D. Kelly.
Carrie Kelly.

George W. Phillippi, Inventor

By Attorney

E. A. Kelly

UNITED STATES PATENT OFFICE.

GEORGE W. PHILLIPPI, OF READING, PENNSYLVANIA, ASSIGNOR OF TWO-THIRDS TO GEORGE E. HAAK AND ELIJAH F. KEEVER, OF SAME PLACE.

SAFETY-GATE FOR RAILROAD-CROSSINGS.

SPECIFICATION forming part of Letters Patent No. 551,001, dated December 10, 1895.

Application filed April 18, 1895. Serial No. 546,184. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. PHILLIPPI, a citizen of the United States, residing at Reading, in the county of Berks and State of Pennsylvania, have invented certain new and useful Improvements in Safety - Gates for Railroad-Crossings; 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 an improved safety-gate for railroad-crossings and is intended to take the place of the swinging gate now in almost universal use.

The object of the invention is to overcome the difficulty of operating such gates at street-crossings, along which streets are strung overhead wires—such as are used in the trolley system of electric roads, for instance. The present invention overcomes all these objections and is cheap in construction.

The invention is fully described in the following specification and clearly shown in the accompanying drawings, in which—

Figure 1 is a sectional elevation of the casing, showing the arm extended. Fig. 2 is a side elevation of the same, partly in section, with the arm folded to the position it assumes when not in use.

A A' is the casing, which is ordinarily situated on the sidewalk and is formed in two parts, the one descending below the surface of the street and bolted at *m* to the upper portion. In this casing is arranged a vertical shaft *L*, fastened at the top and bottom of the casing in any suitable manner. Along this shaft travels a sleeve *l*, to which the lower end of the main operating-bar *B* is attached pivotally. Near the upper end of this shaft is also pivotally attached the upper end of the supplemental operating-bar *B'* of the arm. On the inner side of the face of the casing are arranged three bosses, in which bear the shafts *c*, *d*, and *e*. To the shaft *c* is attached a double sprocket-wheel *C C'*, to the shaft *d* is attached a sprocket-wheel *D*, and to the shaft *e* is attached a sprocket-wheel *E*.

The wheels *D* and *C* are operatively connected by a chain belt *H*. The wheels *C'* and

E are connected in a similar manner by a chain belt *K*. This chain belt *K* is attached to the sleeve *l* by means of a pin or otherwise. The shaft *d*, to which the wheel *D* is attached, projects through the face of the casing and is provided with an operating-crank *F*.

The arm proper is formed of a series of bars *b*, of channel-iron or equivalent material, crossing each other diagonally and pivotally connected at their crossing-points in such manner as to form a series of squares when fully extended and to fold together when in normal position. At the top of the casing is attached an alarm-bell with a depending trip-hammer *t*. There is also a light of green glass placed in the uppermost point of the casing, and to the upper end *b*² of the outer bar is attached a red lamp *n*.

The operation is as follows: In order to open the gate—i. e., to close traffic along the street crossing the railroad—the crank *F* is operated in the direction of the arrow through the chain belt *H*, the wheel *C* is caused to rotate in the direction of the arrow, and in like manner the wheel *E* is operated through the chain belt *K*. The upward travel of the chain-belt *K* will, through its connection with the sleeve *l*, cause said sleeve to slide upon the shaft *L*. The main bar *B* of the arm will be forced outward, carrying with it the whole series of bars, by reason of the fact that the upper end of the supplemental bar *B'* is stationary. When the arms start to move outward, the upper end of each one will come in contact with the trip-hammer *t* and sound the alarm. The outer bar *b*² is provided with a slot *b*³, which rides on a pin at *b*⁴, thus allowing the bar *b*² to retain a vertical position. To the top of this bar is attached a red lamp *n*, which when returned to its normal position behind the green glass will show a blue light, which denotes "safety." The operation of the crank *F* in the opposite direction will of course return the arm to its normal position in the casing.

It will be seen that this improved apparatus overcomes all interference with overhead wires and at the same time is neat in appearance and simple in construction.

A double gate can be operated by my im-

proved mechanism in a similar manner—that is, by connecting the two mechanisms by underground chains.

Having thus fully described my invention,
5 I do not desire to limit myself to the exact construction shown and described, as other modifications may be easily devised without departing from the spirit of the invention; but

What I claim is—

10 A safety gate for railroad crossings formed of a series of folding bars, pivotally connected at their crossing points, the main operating

bar thereof pivotally connected to a sliding sleeve and the supplemental bar pivotally connected to a stationary point, in combination with a series of sprocket wheels and belt chains for operating said bars, substantially as set forth.

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

GEORGE W. PHILLIPPI.

Witnesses:

ED. A. KELLY,
GEO. E. HAAK.