No. 706,046. Patented Aug. 5, 1902.

J. G. GOLDFOOT.

COMPUTING SCALE FOR RAILWAY MILEAGE BOOKS.

(Application filed Jan. 29, 1902.)

(No Model.) 2 Sheets—Sheet 1.

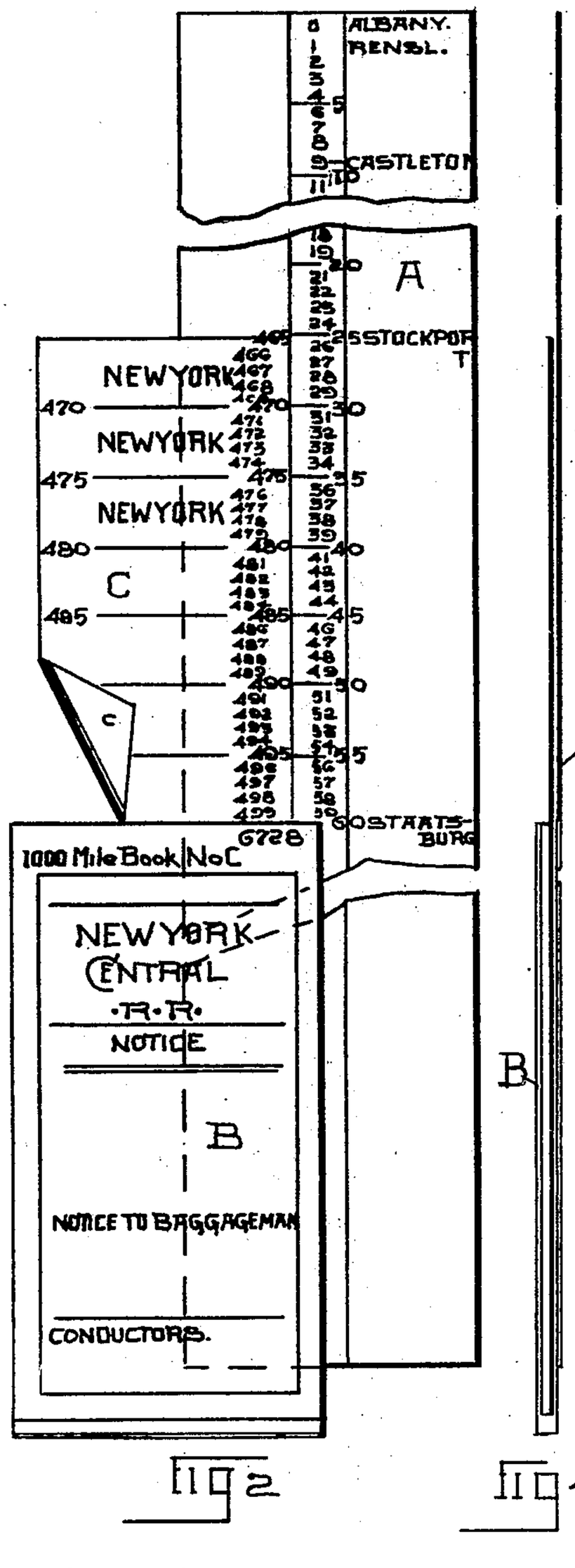

Fig 2

Fig 4

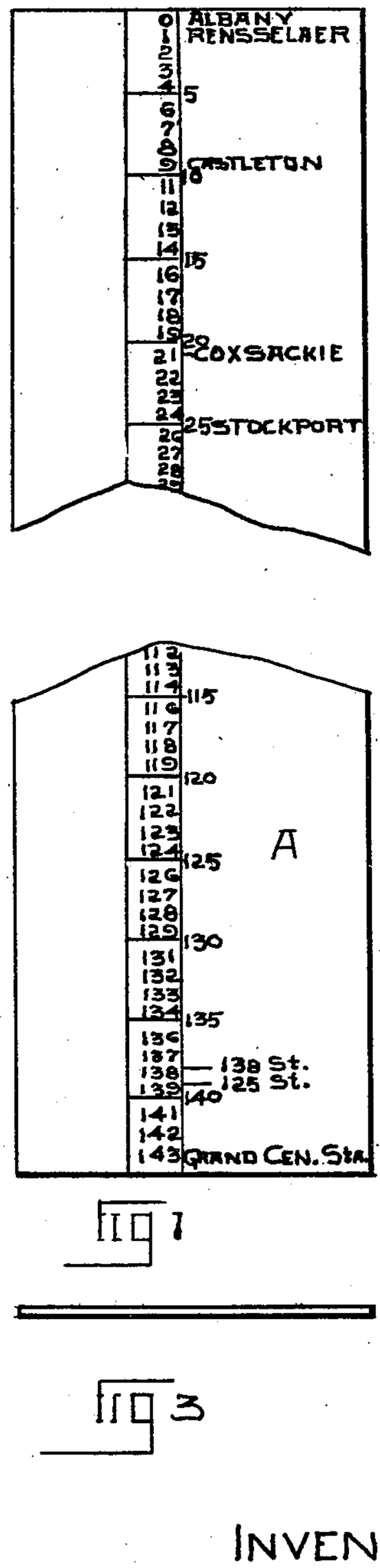

Fig 1

Fig 3

WITNESSES.
WILLIAM FAIRCHILD
Lottie Prior,

INVENTOR
JOHN G. GOLDFOOT
BY Ward & Cameron
his ATTORNEYS.

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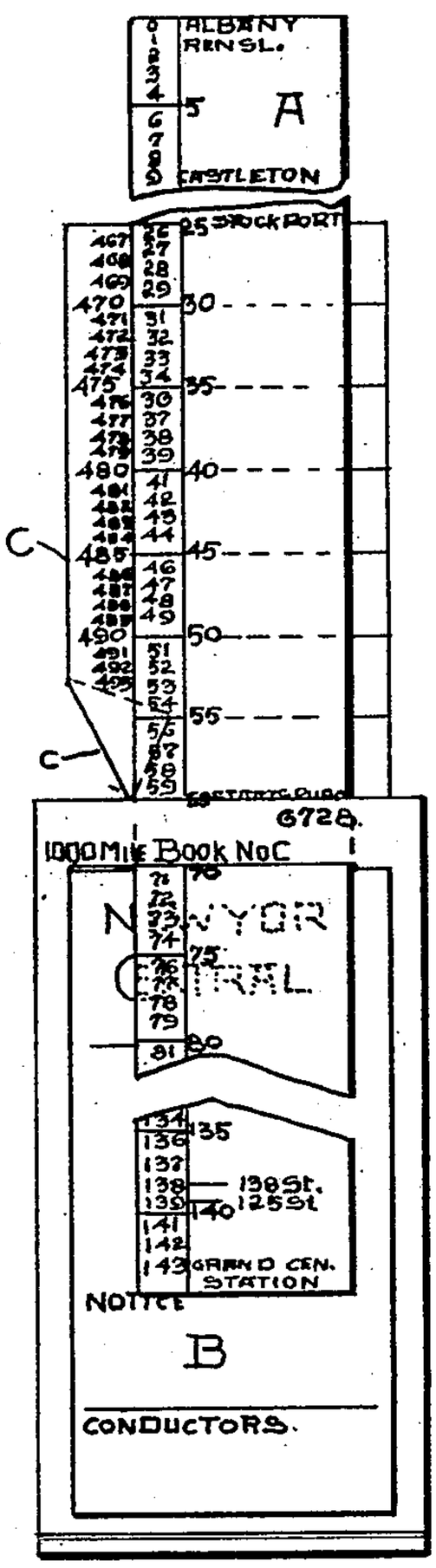

FIG 6

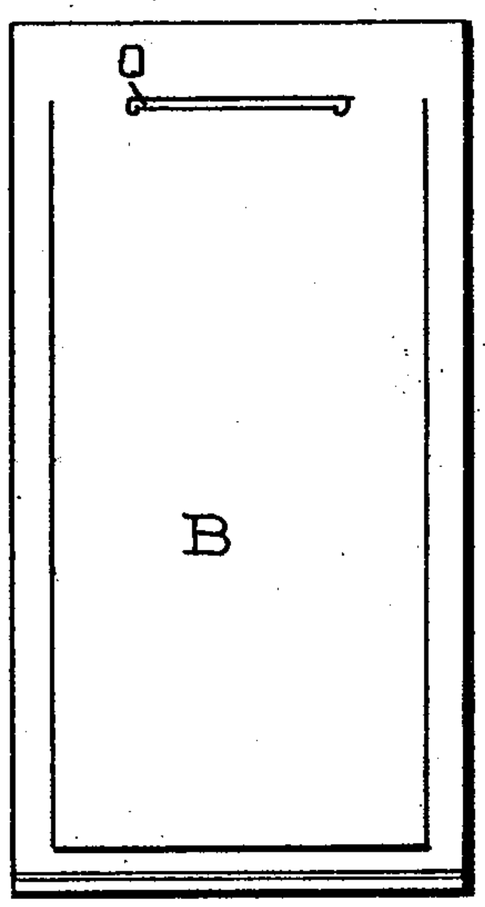

FIG 5

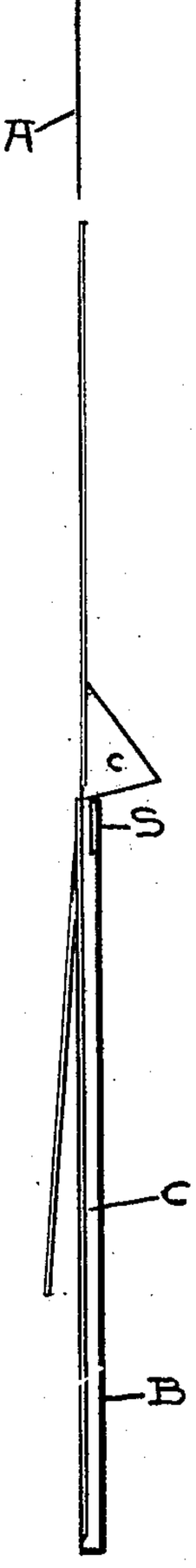

FIG 7

WITNESSES.
WILLIAM FAIRCHILD
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UNITED STATES PATENT OFFICE.

JOHN G. GOLDFOOT, OF ALBANY, NEW YORK.

COMPUTING-SCALE FOR RAILWAY MILEAGE-BOOKS.

SPECIFICATION forming part of Letters Patent No. 706,046, dated August 5, 1902.

Application filed January 29, 1902. Serial No. 91,663. (No model.)

To all whom it may concern:

Be it known that I, JOHN G. GOLDFOOT, a citizen of the United States of America, and a resident of the city and county of Albany, State of New York, have invented certain new and useful Improvements in Computing-Scales for Railway Mileage-Books, of which the following is a specification.

My invention relates to means for quickly and accurately ascertaining the number of units to be detached from a railway mileage-book for either passenger or baggage; and the object of my invention is to provide a computing-scale to be used in connection with a mileage-book, so as to quickly and accurately determine the exact point where the mileage-strip is to be detached. I attain this object by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 represents a plan view of my computing-scale. Fig. 2 represents the scale being laid upon the mileage-strip of a railway mileage-book, illustrating the manner of its use. Fig. 3 is an end view of the computing-scale shown in Fig. 1. Fig. 4 is a side view of the computing-scale and mileage-book in use as shown in Fig. 2. Fig. 5 is a view of the mileage-book with a slot in the cover for the use of my computing-scale. Fig. 6 is a view of my computing-scale being used with the book as shown in Fig. 5. Fig. 7 is a side view of Fig. 6.

Similar letters refer to similar parts throughout the several views.

My invention is designed for use with a mileage-book of the usual form, in which mileage coupon-tickets are printed upon one long continuous strip or ribbon of paper attached in the usual manner between two covers, forming a book known as a "railway mileage-book." The spaces or coupons are numbered consecutively and are used in the usual way by detaching coupons bearing the numbers indicating the number of miles the holder travels or baggage is checked upon it. The mileage-strip should preferably have a blank portion at the end where fastened between the covers of the mileage-book, so that the strip may be drawn out far enough for the entire portion containing the mileage numbers to be outside the covers, so as to be more readily detached.

A represents my computing-scale, which is made by printing or stamping the number of miles of a section or entire length of a road upon a rule or tape. The size of the figures and spaces used are made to correspond with the sizes of the figures and spaces used in the mileage-books of the particular railroad upon which the computing-scale is to be used, so that when my computing-scale is laid upon the mileage-strip attached to the mileage-book any given number of miles upon my computing-scale will correspond with the same number of miles upon the mileage-strip.

My computing-scale may be made of any material and of any length; but it is most convenient to have the scale made for one division of the road upon which it is to be used and to contain the number of miles for that division, as between Albany and New York; but where the computing-scale is printed upon a tape a much greater number of miles can be used, as from New York to Buffalo or even from New York to Chicago. On one side of the scale are printed the number of miles consecutively corresponding with the mileage-book, with the name of each station between the two ends of that division or road, the name of each station being opposite the number designating the number of miles of the station from the starting-point. On the reverse side of the computing-scale are printed the corresponding numbers of miles and names of stations commencing at the opposite end of the division or road. The scale may be printed upon wood, rubber, celluloid, metal, or other substance, in one length or in sections, or in the form of a folding pocket-rule, or may be printed upon tape, which tape may be wound up automatically by a spring in a box, which may be conveniently carried in one's pocket.

To use my computing-scale, it is only necessary to place it upon the unused portion of the mileage-strip, so that the end of the mileage-strip shall be opposite the name of the station where the passenger boards the train, and then pull out the mileage-strip until the number at the edge of the book will be opposite the name of the station where the passage ends and then tear off that strip, rendering it wholly unnecessary to compute the number of miles. In Figs. 2 and 6, C rep-

resents the unused portion of the mileage-strip. As illustrated in those figures, if a passenger comes aboard the car at Stockport intending to ride to Staatsburg the end of the unused portion of the ticket, which in this case commences at "465," would be placed opposite the word "Stockport" upon the computing-rule and the rule held so that the word "Staatsburg" would be even with the straight edge at the end of the covers of the mileage-book and the mileage-strip pulled out that far, so that the last number of miles shown on the mileage-strip would be opposite the word "Staatsburg" on the computing-scale, and also would be at the edge of the straight edge at the end of the covers of the mileage-book, so that the mileage-strip could be torn off at that point, as shown in Fig. 2, *c* showing a corner of the mileage-strip partly torn off. When used in the baggage-room for removing the baggage-strip numbers from the mileage-book, a rule having the computing-scale printed thereon can be readily laid upon the counter upon the mileage-strip ticket and the baggage-strip part of the ticket removed for the proper number of miles. The computing-scale in the form of a rule can also be used by conductors on the cars; but the more convenient method, however, is to have a slot, as shown by the letter O in Fig. 5, cut in the cover of the mileage-book near the end and have a metallic straight edge upon the lower cover of the mileage-book, as shown by the letter S, Fig. 7. This metallic straight edge is preferably made of sufficient thickness to compensate for the thickness made by the folds of the mileage-strip, so that the mileage-strip may be held firmly between the ends of the covers, so as to be readily and accurately detached. When used in this way, the computing-scale is preferably printed upon a thin tape and the tape inserted through the slot, as shown in Fig. 6, so that the person desiring to remove a number of coupons from the mileage-book may grasp the end of the mileage-strip and the computing-scale between the thumb and one finger, the starting-point of the mileage-strip being applied upon the computing-scale, as before described, and the same drawn out until the name of the station to which the passenger desired to pay the fare comes even with the edge of the book, and then the mileage-strip can be torn off upon the straight edge S, as shown by *c* in Fig. 6. The edges of the cover surrounding the slot O may be bound in a suitable manner or strengthened by a plate attached to the cover surrounding the slot to prevent the same from tearing out or becoming damaged.

It is well known that conductors and baggagemen make frequent mistakes in detaching the coupons representing the desired number of miles from the mileage-books. They frequently do not know the number of miles without consulting their books and then computing the proper number. This takes time, and in the rush and hurry it is often impossible for them to take the necessary time to do it accurately. With the use of my computing-scale it would not be necessary to count up, compute, nor ascertain the number of miles for which the coupons are to be detached, but being measured off the number detached would always be absolutely correct and the least possible time taken.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A computing-scale for railway mileage-books consisting of a rule or tape having marked thereon as many divisions or spaces as there are miles of length in the portion of the railroad upon which said computing-scale is designed to be used, said spaces being numbered consecutively to correspond with the number of miles from the starting-point to the terminus thereof; and having the names of the stations along said portion placed opposite the numbers designating the number of miles of the respective stations from the starting-point; said spaces being of uniform length and equal in length to the length of a mileage-coupon of the railway mileage-books issued for passenger travel upon said railroad, whereby said rule or tape is constructed and adapted for use in conjunction with said railway mileage-book having a long strip or ribbon of paper with mileage-coupons printed thereon, substantially as described, and for the purposes set forth.

2. A computing-scale for railway mileage-books consisting of a rule or tape having marked thereon upon both sides thereof as many divisions or spaces as there are miles of length in the portion of railroad upon which the computing-scale is designed to be used; said spaces being numbered consecutively on one side of said scale to correspond with the number of miles from one end of said portion of railroad, and on the reverse side of said scale numbered in like manner commencing at the opposite end of said portion of railroad; said scale having thereon the names of the stations along said railroad placed opposite the numbers designating the number of miles of the respective stations from the respective starting-point; and each of said spaces being in length equal to the length of a mileage-coupon of the railway mileage-book issued for passenger travel on said railroad; whereby said rule or tape is constructed and adapted for use in conjunction with said railway mileage-book having a long strip or ribbon of paper with mileage-coupons printed thereon; substantially as described and for the purposes set forth.

3. A computing-scale for railway mileage-books made by marking off a rule or tape into as many divisions or spaces as there are miles of length in the railroad, or some portion or division thereof, upon which said computing-scale is designed to be used; said spaces being numbered consecutively to correspond with the number of miles from the starting-

point to the terminus thereof; and having the names of the stations along said railroad, or the said division thereof, placed opposite the numbers designating the number of miles of the respective stations from the starting-point; said spaces being of uniform length and equal in length to the length of a mileage-coupon of the railway mileage-books issued for passenger travel upon said railroad; in combination with the said railway mileage-book, composed of a long strip or ribbon of paper with mileage coupon-tickets printed thereon and suitably attached at one end between two covers, of which covers the one next the face side of said mileage-strip is provided with a slot adapted to admit the said computing-scale to pass through it and lie upon the face side of said mileage-strip, substantially as described and for the purposes set forth.

Signed at Albany, New York, this 22d day of January, 1902.

JOHN G. GOLDFOOT.

Witnesses:
LOTTIE PRIOR,
WALTER E. WARD.