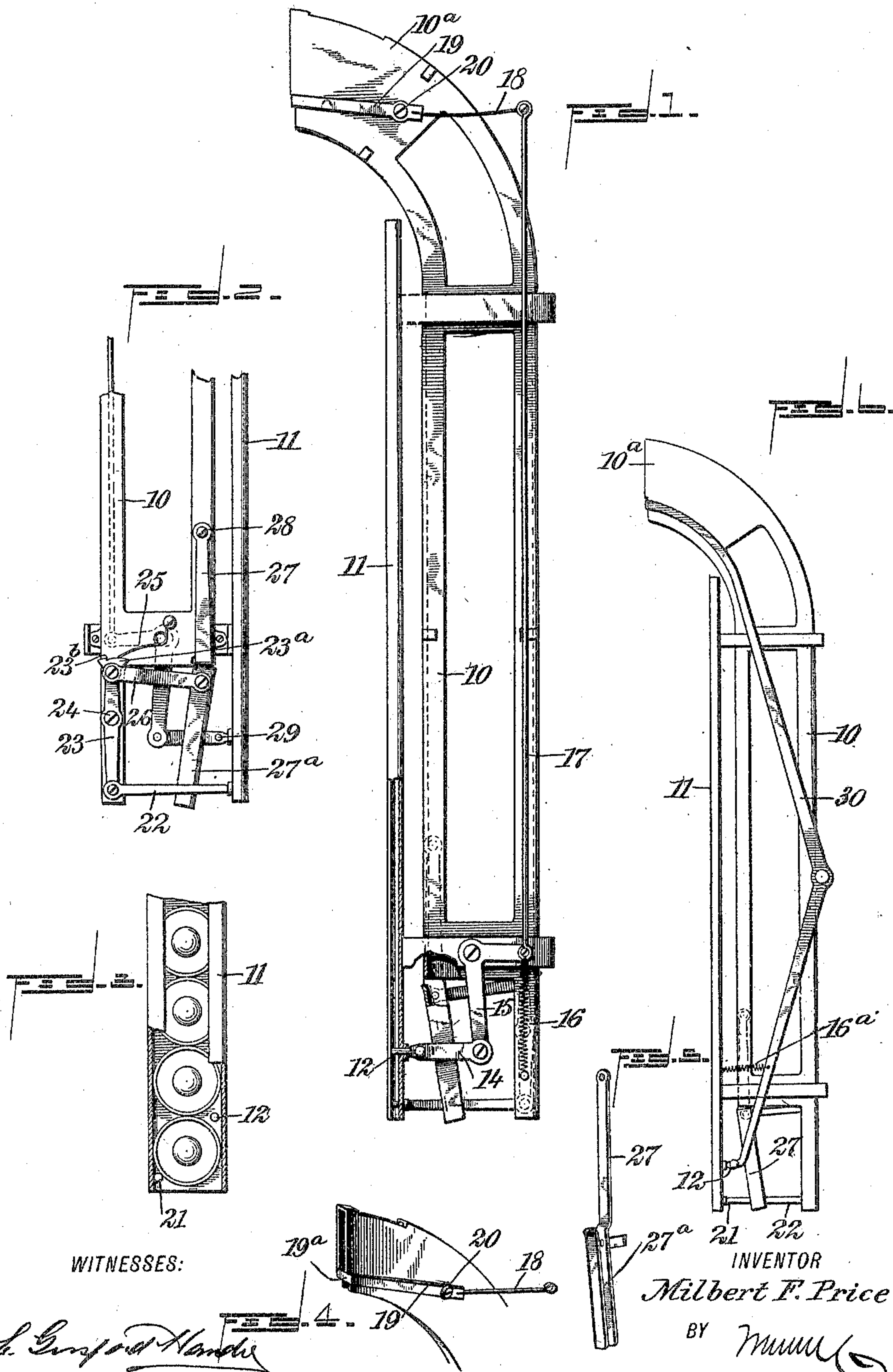


No. 816,936.

PATENTED APR. 3, 1906.

M. F. PRICE.
COIN CONTROLLED APPARATUS.
APPLICATION FILED JUNE 3, 1904.



WITNESSES:

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UNITED STATES PATENT OFFICE

MILBERT FRANKLIN PRICE, OF IOWA CITY, IOWA.

COIN-CONTROLLED APPARATUS.

No. 816,936.

Specification of Letters Patent.

Patented April 3, 1906.

Application filed June 3, 1904. Serial No. 210,954.

To all whom it may concern:

Be it known that I, MILBERT FRANKLIN PRICE, a citizen of the United States, and a resident of Iowa City, in the county of Johnson and State of Iowa, have invented a new and Improved Coin-Controlled Apparatus, of which the following is a full, clear, and exact description.

This invention relates to a coin-controlled apparatus intended for use in connection with machines for vending merchandise of various sorts, but particularly for vending collar-buttons.

The present invention is an improvement over the mechanism forming the subject of my prior patent, No. 681,732, dated September 3, 1901.

In the patented device above referred to two stops are employed, the bottom stop working against the lowermost button of a superimposed pile and the upper stop working between the lowermost button and the one next adjacent, the stops operating alternately separately to deliver the buttons.

The main object of the present improvement is to render the operation of these stops wholly automatic upon the insertion of a proper coin.

A further object is to guard against the insertion of an improper coin disturbing the proper operation of the parts, so that on the insertion of a proper coin after an improper coin the operation of the apparatus is not interfered with.

The invention resides in certain novel features of structure and organization, which will be hereinafter fully set forth, and pointed out in the claims.

Reference is had to the accompanying drawings, forming part of this specification, and illustrating as an example two practical embodiments of my inventive idea, in which drawings like characters of reference indicate like parts, and in which—

Figure 1 is a side view of the coin-controlled mechanism with parts broken away particularly to show the stops. Fig. 2 is a side elevation of the lower part of the mechanism looking toward the side opposite that shown in Fig. 1. Fig. 3 is a front view of the merchandise-chute with parts broken away to illustrate the two stops and their relation to the collar-buttons or other merchandise. Fig. 4 is a fragmentary view of the upper part of the coin-chute, showing the trip-lever op-

erated upon the insertion of a coin. Fig. 5 is a detail perspective view showing the lever which is arranged to be struck by the coin as it passes from the coin-chute and by which the lower stop is retracted, and Fig. 6 is a reduced side elevation showing a slightly-modified means for operating the upper stop.

Referring particularly to Figs. 1 to 5, 10 indicates the coin-chute, the body of which is vertically disposed and the upper part 10^a of which curves over horizontally, so as readily to receive the coin. 11 indicates the merchandise-chute, which is essentially channel-shaped in cross-section and suitably mounted in front of the coin-chute. In the practical employment of my invention a number of coin and merchandise chutes and their appurtenant parts are arranged in a single and preferably a glass case. (Not shown.) 12 indicates the upper merchandise-stop, which is horizontally disposed and arranged to move back and forth across the merchandise-chute 11 near the lower end and at one side thereof in such manner as to intercept the collar-buttons and prevent the delivery thereof from the chute when the stop is in its protruded or forward position. Said stop is carried on a link 14, which is articulated to the lower end of an elbow-lever 15, suitably fulcrumed on one side of the coin-chute. 16 indicates a spring for throwing downward the upper limb of said elbow-lever and causing the stop 12 normally to assume its protruded position. Connected with said upper limb of the elbow-lever 15 is a relatively long link 17, which extends to the curved upper part 10^a of the coin-chute and is pivotally joined to a spring-arm 18, forming, with a relatively non-yielding arm 19, a lever the fulcrum 20 of which is intermediate its ends. The rigid part 19 of said lever extends to the other or receiving end of the coin-chute and is there turned laterally, as indicated at 19^a, the laterally-turned portion lying across the lower part of the mouth of the coin-chute, so that a coin inserted into the chute must engage said part 19^a and throw downward the arm 19 of the lever, throwing upward the spring-arm 18 thereof. This causes the link 17 to be raised, and through the action of the elbow-lever 15 the link 14 is retracted, bringing with it the stop 12 and releasing the merchandise which is supported by said stop when in its protruded position. Therefore when a coin is inserted in the mouth of the

chute 10 the upper stop 12 is retracted. It will be observed that this operation takes place not only when a coin of the true or intended dimension is inserted, but that the
 5 adjustment may be such as to bring about the retraction of the upper stop 12 when a coin of much smaller dimension than that intended is inserted. Owing to the spring-arm 18 a wide range of movement is allowed
 10 to the arm 19 without binding, injuring, or failing to operate any of the parts. This spring-arm 18 is therefore important for this purpose.

The lower stop 21 lies at the lower extremity of the merchandise-chute and at the side opposite that occupied by the upper stop 12. Said stop 21 is carried (see Fig. 2) by an arm 22, which is joined to the lower end of a lever 23, extending vertically and fulcrumed
 20 at the point 24 on the lower portion of the coin-chute. The upper end of said lever is formed with a widened or sector-like portion 23^a, having a notch 23^b in its edge, and with said notch operates a spring 25, mounted on
 25 the coin-chute, the arrangement being such that when the stop 21 is retracted the end of the spring 25 will fall into the notch 23^b and retain the parts in this retracted position until force is applied with sufficient strength
 30 to overcome the action of said spring. The purpose of holding the lower stop 21 thus retracted is to prevent the premature return of the stop, and to thereby insure the proper delivery of the merchandise. At its upper end
 35 the lever 23 is connected by a link 26 with a lever 27. Said lever has its fulcrum 28 arranged at its upper end in connection with the coin-chute 10 and the lower end of said lever is channel-shaped, as indicated at 27^a,
 40 this channel-shaped lower extremity of the lever 27 forming a continuation of the front wall of the coin-chute and being disposed diagonally to the longitudinal axis of the chute, so that when the lever 27 is in its inner position, as shown in Fig. 2, the lower end of the
 45 coin-chute is contracted. The parts are so adjusted that this contracted lower end of the coin-chute allows the free passage of coins under the size selected for operating
 50 the apparatus without imparting any movement to the lever 27; but upon the passage of the coin of proper size the lever 27 is thrown forward, thus retracting the arm 22 and stop 21 through the medium of the parts 26 and
 55 23. The arm 14 has a transverse pin 29 projected past the front side of the lower or channel-shaped part 27^a of the lever 27, the arrangement being such that when the link 14 is moved rearward to retract the stop 12 said
 60 pin 29 will strike the lever 27 and throw the same rearward, thus protruding the stop 21. It therefore will be seen that when a coin is inserted in the upper end of the chute and the upper stop 12 retracted, as already explained,
 65 the lower stop will be instantly protruded, so

that upon the first insertion of the coin the result is to retract the upper stop and simultaneously to protrude the lower stop. The parts stay in this position until the coin
 70 passes from the lower end of the coin-chute, and if the coin is of the proper or intended size it will operate the lever 27 to retract the stop 21 and through the action of the pin 29 simultaneously to protrude the stop 12, thus
 75 allowing the lowermost button to fall from the merchandise-chute, but restraining the other buttons, owing to the protrusion of the upper stop. If the coin is of improper size, it will pass the lever 27 without operating the
 80 same. It therefore will appear that the merchandise is delivered from the chute one piece at a time by the alternate protrusion and retraction of the stops 12 and 21, that upon the insertion of a coin in the chute the
 85 upper stop is retracted and the lower stop is simultaneously protruded, and that if this coin be of the proper size upon passing from the lower end of the chute it will retract the lower stop, and if the upper stop has not been
 90 previously returned to its protruded position by the spring 16 the movement of the lever 27 incident to the retraction of the lower stop will also bring about the protrusion of the
 95 upper stop. By the action of the spring 25 the parts will stay in this position, the merchandise then being sustained by the upper stop until a second coin is inserted, whereupon the above operation will be repeated.

The embodiment shown in Fig. 6 involves simply the use of a single lever 30 in place of
 100 the parts 14, 15, 17, 18, and 19 of Fig. 1. The operation is essentially the same, except that the novel function of the spring 18 is not provided for in Fig. 6. 16^a in Fig. 6 indicates a
 105 spring for returning the upper stop 12 to its protruded position.

Various changes in the form, proportions, and minor details of my invention may be resorted to at will without departing from the
 110 spirit and scope thereof. Hence I consider myself entitled to all such variations as may lie within the terms of my claims.

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

1. The combination of a merchandise-chute, a coin-chute, two stops operating in the merchandise-chute individually to deliver the articles of merchandise, means at the discharge
 120 end of the coin-chute for operating one of said stops, and means including a spring connection at the upper end of the coin-chute for operating the other stop.

2. The combination of a merchandise-chute, a coin-chute, two stops operating in the merchandise-chute individually to deliver the articles of merchandise, means at the discharge
 125 end of the coin-chute for operating one of said stops, means including a spring connection at the upper end of the coin-chute for
 130

operating the other stop, and means in connection with said means for operating the other or second stop to automatically return the first stop to protruded position upon the retraction of the second stop.

3. The combination of a merchandise-chute, a coin-chute, devices coacting with the merchandise-chute for individually delivering the articles of merchandise, and means for operating said devices, such means including a lever intermediately fulcrumed and having a spring-arm and a rigid arm, the rigid arm being arranged to be engaged by the coin.

4. The combination of a merchandise-chute, a coin-chute, two stops coacting with the merchandise-chute individually to deliver the articles of merchandise, an elbow-lever in connection with one stop, a link articulated to the elbow-lever, a second lever mounted on the coin-chute and connected with the link, one arm of the second lever lying across the receiving end of the coin-chute, a lever fulcrumed on the coin-chute and having a part forming a continuation of the coin-chute to be struck by the coin, and a connection between the last-named lever and the second or remaining stop.

5. The combination of a merchandise-chute, a coin-chute, two stops coacting with the merchandise-chute individually to deliver the articles of merchandise, an elbow-lever in connection with one stop, a link articulated to the elbow-lever, a second lever mounted on the coin-chute and connected with the link, one arm of the second lever lying across the receiving end of the coin-chute, a lever fulcrumed on the coin-chute and having a part forming a continuation of the coin-chute to be struck by the coin, and a connection between the last-named lever and the second or remaining stop, said second-named lever including a spring part.

6. The combination of a merchandise-chute, a coin-chute, two stops coacting with the merchandise-chute individually to deliver the articles of merchandise, an elbow-lever in connection with one stop, a link in connection with the elbow-lever, a second lever having connection with the link, and having a part extended across the receiving end of the coin-chute, a member movably mounted on the coin-chute, and forming a continuation thereof, a connection between said member and the second stop to operate the same, and a part in connection with the first stop and extending across the path of movement of said member which is mounted on the coin-chute.

7. The combination of a merchandise-chute, a coin-chute, two stops operating in the merchandise-chute individually to deliver the articles of merchandise, means at the discharge end of the coin-chute for operating one of the said stops, a member at the receiving end of the coin-chute and adapted to be engaged by

the coin upon its insertion into the chute, a spring attached to said member, and a connection between the spring and the other stop to transmit operating movement thereto.

8. The combination of a merchandise-chute, a coin-chute, two stops operating in the merchandise-chute individually to deliver the articles of merchandise, means in connection with one stop and extending to the receiving end of the coin-chute to be engaged by the coin upon the insertion thereof into the chute whereby to operate the said stop, a lever in connection with the other stop, a link connected to the lever, and a movably-mounted member forming a continuation of the coin-chute and located at the discharge end thereof, said member being in connection with the link and adapted to be struck by the coin as it passes from the chute whereby to operate the second-named stop.

9. In a coin-controlled apparatus the combination with the merchandise-receptacle, of devices coacting therewith to control the merchandise movement and means for actuating said devices adapted to be engaged and set in motion by the coin, said means including a spring transmitting to said devices the movement imparted by the coin for the purpose set forth.

10. In a coin-controlled apparatus, the combination with a merchandise-receptacle, of devices coacting therewith to control the merchandise movement, a member adapted to be engaged and set in motion by the coin, a spring having one part attached to said member, and means in connection with another part of the spring for joining said spring with the said devices controlling the merchandise movement, whereby the spring transmits the movement of the coin from said member to said means.

11. In a coin-controlled apparatus, the combination of a merchandise-chute, two stops movable in and out of the merchandise-chute for the purpose set forth, means actuated by the coin retracting one stop, means for instantly returning or protracting said stop after the passage of the coin, means for protracting the other stop upon the retraction of the first stop, and means actuated by the coin after the actuation of the first-named means thereby, for retracting the second stop.

12. In a coin-controlled apparatus, the combination of a merchandise-chute, two independently-movable stops coacting therewith for the purpose specified, means actuated by the coin for moving one stop into inactive position, means for instantly returning said stop to active position, means for moving the other stop into active position upon the movement of the first stop into inactive position, and means actuated by the coin after the actuation of the first-named means thereby for returning the second stop to active position.

13. In a coin-controlled apparatus, the combination with the merchandise-receptacle, of devices coacting therewith to control the delivery of the merchandise, and means
5 adapted to be engaged and set in motion by a coin, for transmitting to said devices their operating movement, said transmitting means including a movement-transmitting spring arranged to swing around a fixed cen-

ter and connected at its ends with elements 10 of said transmitting means.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MILBERT FRANKLIN PRICE.

Witnesses:

BERNHARD J. HAUBER,
U. S. GOSHALL.