

C. O. FICHT.  
STATION INDICATOR.

No. 181,256.

Patented Aug. 22, 1876.

Fig. 1.

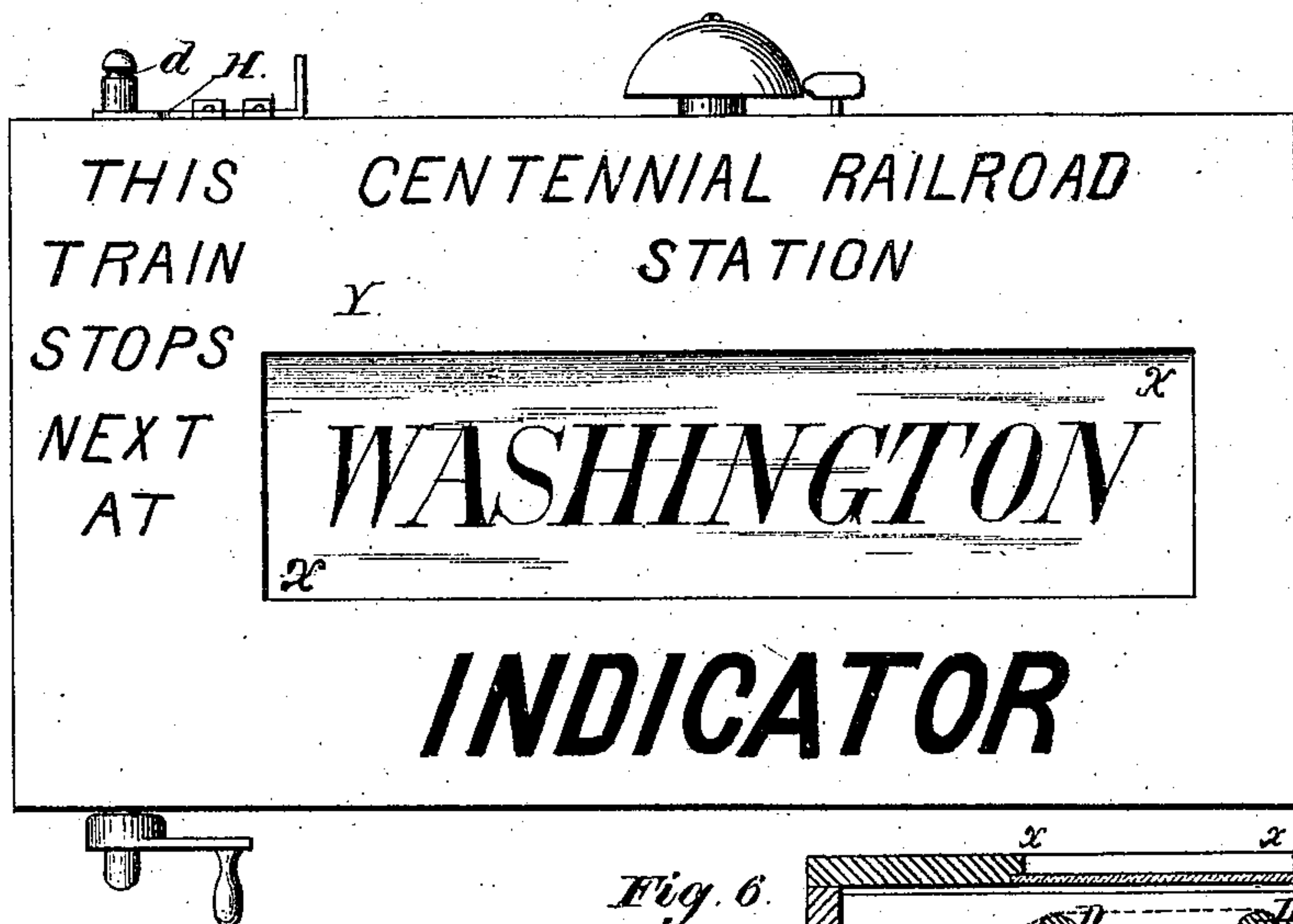


Fig. 6.

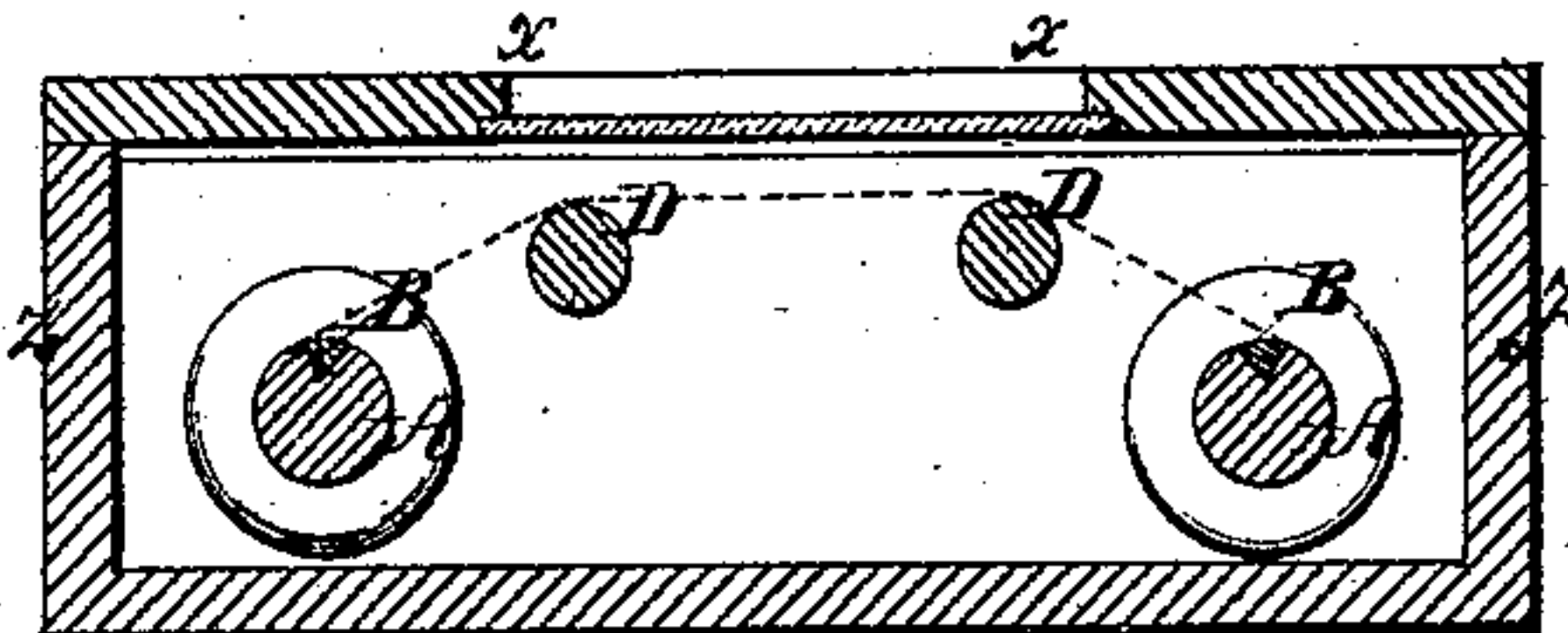


Fig. 2.

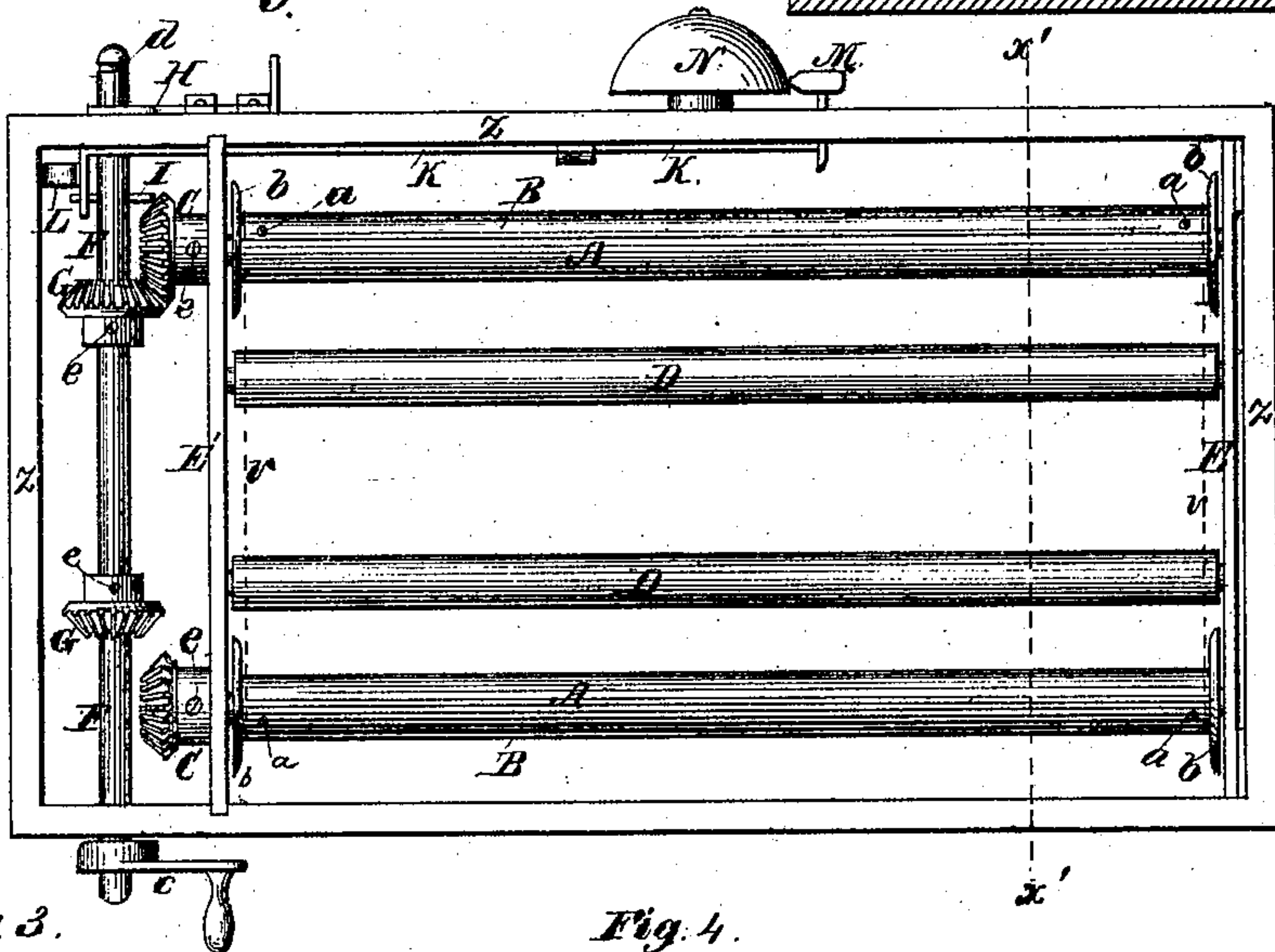


Fig. 3.



Witnesses.

Wm. Welch  
Geo. H. Morse

Fig. 4.

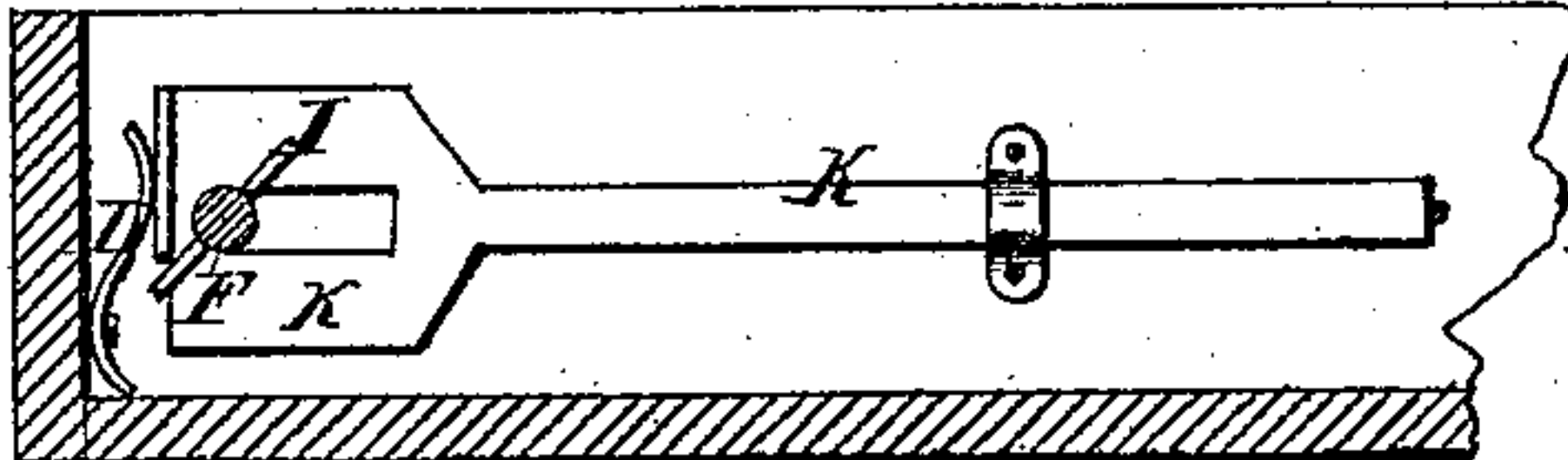


Fig. 5.



Inventor.

Casimir O. Ficht.



# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN STATION-INDICATORS.

Specification forming part of Letters Patent No. **181,256**, dated August 22, 1876; application filed March 28, 1876.

*To all whom it may concern:*

Be it known that I, CASIMIR O. FICHT, of Yonkers, county of Westchester, and State of New York, have invented a machine which I call a "Railroad-Station Indicator;" and I do hereby declare the following, when taken in connection with the accompanying drawings, to be a full and clear description of the same.

In said drawings, Figure 1 is a front view of the indicator when all put together, showing the lettering on the same. Fig. 2 is a front view of the interior of the indicator, the lettered facing board or door being removed—Figs. 3, 4, 5 being views of detached parts of the indicator. Fig. 6 is a vertical cross-section of Fig. 2, shown by the dotted line  $x' x'$ .

The object of this invention is to produce a machine to indicate with facility, to passengers in railway-cars, the stations to which they are approaching.

In order to enable others to make and use my invention I describe it as follows, viz: Z, Fig. 2, is a view of the edges of the frame-pieces of the box or case, made of any suitable size and material. This box may be made with two sections or apartments in it, the division between which is the slat or frame-piece  $E'$ , forming the dividing-partition. In the smaller apartment are located the shaft F and bevel-pinions G G and  $c c$ , and in the larger one the rollers A A and D D. The smaller apartment, with said shaft and pinions, I would prefer to locate at the right-hand end of the box or case instead of at the left, as herein shown, and in that case the position of the other parts of the machine would be changed and located accordingly.

The front or lettered board or door Y, Fig. 1, is hinged to the front of the box or case Z, Fig. 2, in any convenient manner, so that it can be easily opened and shut when desired. This door Y has a mortise or opening, X X, made in it, as seen in Fig. 1. This opening is filled with a glass plate, so that any lettering on the canvas, which is placed within the box, as hereinafter described, can readily be seen. Any desired lettering may be placed on this door, above or below this mortise, or both above and below, as seen in Fig. 1. At either the right or left hand end of this door may be placed these words, or words of similar im-

port: "This train stops next at;" or they may be placed above the glass, where the words "Centennial Railroad-Station" are seen in Fig. 1, so that when these words are taken in connection with the name which appears on the canvas alluded to above, as it may be seen through the said glass, where "Washington" is seen in Fig. 1, it would indicate the station at which the train is next to stop.

In Fig. 2 is shown the internal machinery of the indicator, the door Y being removed for that purpose. A A represent two rollers, upon which is wound a canvas or webbing, which may be composed of any suitable material. Upon this canvas is placed, in any desired manner, and in their proper order, the names of the different stations to be indicated, Washington being, in Figs. 1 and 2, shown as one station.

The dotted lines  $v v$ , in Fig. 2, represent the edges of said canvas. D D are two rollers, which are placed behind the canvas, to hold it up in close proximity to the glass, which is placed in the mortise or opening X X of the door Y. B B are small bars, which are fitted in grooves in the rollers A A, and secured therein by the screws  $a a a a$ . The ends of the canvas are secured in these grooves by means of the bars B B and screws  $a a a a$ . On the rollers A A are collars or flanges  $b b b b$ , between which the said canvas is wound on said rollers. All the rollers are held in place by the slats or frame-pieces  $E E'$ , and revolve in bearings therein. The ends of these slats are inserted in grooves in the frame Z Z. On one end of each of the rollers A A is placed a bevel-pinion,  $c$ , and secured thereto by a screw,  $e$ , or in any other desired manner.

F is a vertical shaft, which passes through the bottom and top pieces of the frame Z Z. On this shaft are two bevel-pinions, G G, so placed that the upper one will engage with its fellow pinion  $c$  on the upper roller A, when the said shaft is in the position shown in Fig. 2, which is its highest position, and when it is dropped down to its lowest position, then the lower pinion G will gear with its fellow pinion  $c$  on the lower roller A; and the said shaft F extends a suitable distance below said frame Z, to take on its lower end the crank C, and to have enough space between it and the



said frame to allow the shaft to be moved up endwise, so as to gear the upper pinion G with its fellow, as before described; and this shaft has, at or near its upper end, two grooves, *d*, Figs. 1 and 2, formed therein. The upper one is seen in the said figures; the lower one is even with the top of the frame Z, and is engaged with the forked sliding keeper H, and, therefore, is not seen in said figures. This keeper is shown in Figs. 1, 2, and 3, at H. When this forked keeper is engaged with the lower groove in the vertical shaft F it holds it in the desired position to keep the upper pinion G in gear with its fellow pinion *c* on the upper roller A, and when it is engaged with the upper groove it holds the shaft in suitable position to have the lower pinion G engage with its fellow on the lower roller A, and thus but one pair of said pinions can be engaged at the same time. This slide or keeper H is so made and attached to the top of the frame Z that it can with ease be moved backward and forward from and to said shaft F, so that it can be with facility engaged and disengaged with the said grooves in the shaft. (See Figs. 1, 2, and 3.)

To the under or inner side of the top piece of the frame Z is attached a long slide, K. This slide moves freely back and forth in its bearings, and at one end it is turned down at a right angle to the main part of the same, and to that downward projection is attached a spring, L. (See Fig. 2.) This spring bears against the inner side of the end piece of the frame Z, thus keeping the slide K forced forward from said end of frame Z. There is a pin, I, so placed in the shaft F that when the latter is turned the pin comes in contact with the downward projection of the slide, and forces it backward against the spring L; and when this pin passes the said projection, relieving it from contact therewith, the spring L forces the slide K forward, and thus a forward and backward motion of the slide is effected by the revolving motion of the shaft F.

In close proximity with what may be called the inner end of the slide K is pivoted a hammer, M, the head of which is above the top of the frame Z, and its handle, or the lever on which it is placed, comes down through the top of said frame, as seen in Fig. 2, and is operated by the slide K in its backward and forward motion; and near to said hammer M is placed the bell N, against which the hammer strikes when operated by the slide K, as above described.

Fig. 4 is a view of the slide K, shaft F, pin I, and spring L detached from the box or case Z. Fig. 5 is a perspective view of one of the rollers A, showing its groove and bar B, for securing the lettered canvas to the same. Fig. 6 being a vertical cross-section, at the dotted line *x' x'*, of Fig. 2, it shows the relative positions of the rollers A A and D D, the latter being placed just behind, and in close proximity with, the mortise or opening X X, in which the glass is placed, in order to hold

the lettered apron or canvas, which is shown in a dotted line, up close to the glass in said opening X X, which is necessary in order that the letters or words on said apron can be readily read from any angle or direction of vision.

Having thus fully described the construction of my machine, I will proceed to explain its use and operation.

It may be used in railroad-cars to indicate the stations to which they may be approaching, on steamboats to indicate the landings, and in hotels and depots to indicate the time of arrivals and departures of trains, by a suitable modification of the lettering on the machine.

It is operated as follows, viz: The box or case may be placed in the most conspicuous and suitable location, whether used in cars, steamboats, hotels, or depots. When used in cars, it may be placed over the door at the forward end, or in any suitable place, so as to be in convenient view of the passengers; and the rollers A A having been turned by means of the crank C to the proper position to show the name of the station from which they are about to start through the glass in the door Y of the box or case, then the shaft F is either raised or lowered, as the case may be, to put in gear the proper pinion on the shaft F with its fellow on roller A, to turn said roller in the right direction to bring the name on the canvas of the next stopping-place opposite the glass in the door of the indicator, and the said shaft is held in the desired position by pushing forward into the proper groove in said shaft the keeper H; and when the train starts, the person having charge of the indicator will, by means of the crank C, turn the rollers until the name of the next stopping-station appears behind the said glass; and if said name is Washington, as in Fig. 1, and it be read in connection with the lettering on the door of the indicator outside of the glass, it will be thus: "This train stops next at Washington;" and after passing each station, the person in charge will simply turn the crank till the name of the next station can be seen through the glass, and this operation is continued throughout the trip; and when the train arrives at the end of the route, the position of the shaft F will be changed by withdrawing the keeper H from the groove of the shaft in which it was last placed, and so moving said shaft endwise as to allow the keeper to be pushed forward into the other groove, and when it is forced therein the machine is ready to operate on the backward trip. This change of position of the shaft F changes the gearing of the pinion G with the pinion *c* on one roller A to that on the other roller A, and thus changes or reverses the direction of the motion of the canvas, and of course brings the names of the stations into view in the reverse order, and the roller which is being turned directly by a pinion, G, on shaft F will always be the one on which the canvas is being wound, and the



other roller will be turned merely by the drawing motion of the canvas as it unwinds from it, and thus it is continuously being rolled on one and unrolled from the other roller as the machine is operated; and as the shaft F is turned, its pin I will come in contact with the downward projection of the slide K, forcing it back against the spring L; and when the said pin passes the said projection of the slide K, the spring L drives the slide forward against the lever of the hammer M, causing it to strike the bell N, and thus the attention of the passengers will be called to the indicator, where they will see the name of the next station at which the train is to stop plainly exhibited to their view; and by continuing this operation all the stations at which the train is to stop will be clearly indicated to the passengers, giving them ample time to prepare to leave the cars as desired.

Having thus fully explained the construction and operation of my indicator, what I

claim, and desire to secure by Letters Patent, is—

1. The combination of the shaft F, provided with the pinions G G, rollers A A, provided with the pinions c c, and beam-rollers D D, or their equivalents, with the apron or canvas bearing the names of the stations, all substantially as and for the purpose set forth and described.

2. The combination of the shaft F, pin I, slide K, and spring L, substantially as set forth.

3. The combination of the slide K, spring L, hammer M, and bell N with the shaft F, provided with the tappet or pin I, all substantially as and for the purpose set forth and described.

CASIMIR O. FICHT.

Witnesses:

URIAH WELCH,  
JNO. M. MORSE.