March 14, 1933. C. J. GUTBERLET 1,901,508

TELEPHONE TICKET DISTRIBUTION SYSTEM

Filed May 31, 1930

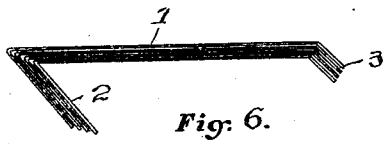


Fig. 6.

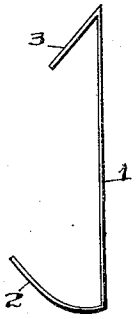


Fig. 3

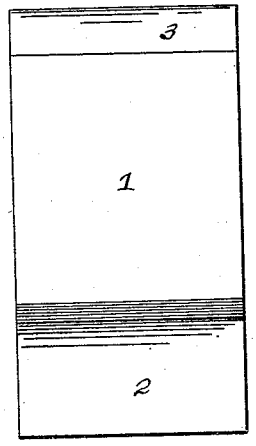


Fig. 4.

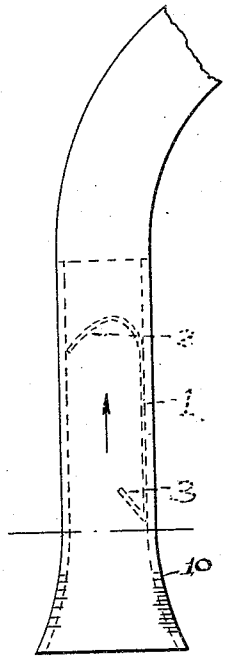


Fig. 5.

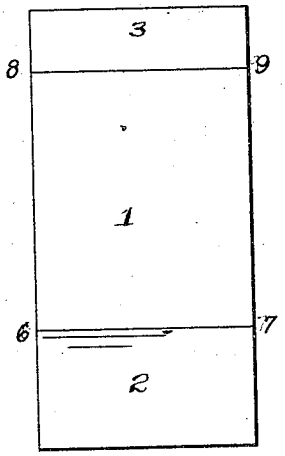


Fig. 1.

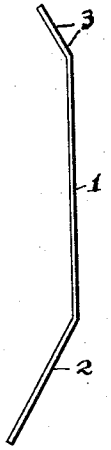


Fig. 2

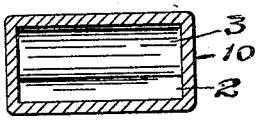


Fig. 7.

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UNITED STATES PATENT OFFICE

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TELEPHONE TICKET DISTRIBUTION SYSTEM

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The use of memorandum slips or tickets in telephone exchanges is universal. These slips have a face that has printed on it a form that has blanks which are filled in by several persons. Each ticket has to pass through several hands, sometimes many hands. Operators that are separated, often by substantial distances, are required frequently to fill in blanks on the same slip before it is filed away. The devices that have become standard for conveying the memorandum slips are tubes rectangular in cross section of much less depth than width through which the individual tickets can be caused to travel by air suction or air pressure.

The ticket must be of such form as will travel quickly and with certainty and every precaution must be taken to prevent each ticket from being delayed in the tubes, and to make the tickets space themselves in their travel; because such occurrence would tend to choke the tube and, the tickets following adding to the obstruction, to block the transmission of the tickets.

I have discovered that the form of ticket used hitherto, which had a flat face intended to lie against the wall of one of the broad sides of a tube, and a turned over sail at only one end, did not work entirely satisfactorily. The end of the ticket which was without a sail and lay towards the direction from which the air was travelling (called technically the windward end of the ticket) sometimes moved away from the wall on which it was intended to rest. The air would then get between the ticket and the inner surface of the tube wall against which the ticket should rest, and lessen the driving pressure of the air on the sail of the ticket. I have discovered a very simple and effective means of preventing this from occurring.

Fig. 1 is a front elevation of an unfolded ticket. Fig. 2 a side elevation of same. Fig. 3 a side elevation of the ticket folded for insertion into the tube. Fig. 4 is a front elevation of the same. Fig. 5 shows a side elevation of a carrying tube with the ticket shown by dotted lines therein. Fig. 6 is a sketch of a pack of tickets. Fig. 7 is a cross-sectional view.

The face of the body 1, of the ticket may contain any blank form desired. The tickets are furnished to the operator stacked as shown in Fig. 6. The material out of which the tickets are made is paper, with the fibre running in the direction of the length of the paper, to give the material the requisite springing quality.

The body of the ticket, in practice, is substantially as wide as the interior of the tube. The sail 2, is long enough to extend across the width of the tube, and leave a short portion at its end lying against the side of the tube opposite the side along which the body 1, of the ticket slides. Preferably the ticket is made of strongly fibred paper that is uncalendered, the fibre running lengthwise of the ticket.

The ticket has the sail portion 2, that is hinged to the main body 1, of the ticket, and also the air deflector 3, at the opposite end of the ticket. The function of the sail is to catch the driving air in the tube 10 and cause the ticket to move a length through the tube in the direction of the arrow, as indicated on Fig. 5.

The air deflector 3, when folded as shown in Figs. 3, 4, and 5, secures the body 1, of the ticket from separating from the wall of the tube on which it rests, because the driving air in the tube will strike against the inclined deflector 3, and its impact on the inclined surface of the deflector will push back the body 1, of the ticket against the inner wall of the tube 10.

As the air will travel slightly faster than the ticket, the pressure produced by this impact will assure the body 1, riding closely against this wall. It will also always direct the air current toward the opposite wall C of the tube 10, thereby giving an additional pressure of the sail 3, against this wall.

The whole ticket is made from a single sheet of paper, the hinges between the sail 2, and the main body 1, of the ticket and between the deflector 3 and the main body 1 of the ticket running crosswise of the ticket, in practice, being scored on the lines 6—7 and 8—9 respectively.

The tickets are furnished to the operator

in packs (see Fig. 6) and are then taken out from the pack singly, and the blanks, or some of them, filled in. The sail 2, and the deflector 3, are then bent partly over and the ticket is entered into the tube 10 sail 2 end first. The air will draw the ticket onward through the tube and the deflector 3, will deflect the air toward the side of the tube opposite the body 1, of the ticket, and will cause the body of the ticket to lie closely against the wall with which it is in contact. The deflector 3, in practice, preferably but not necessarily does not extend completely across the tube and bends rather easily upward. The just above described construction has the advantage that the force of the air in the tube between the deflector 3, and the sail 2, is very slightly lessened, and the flow of air to the space back of the sail 2, very slightly impeded; thus making certain that the flow of the air impinging on the inwardly curved sail 2, is not materially diminished. This is important because unless a strong driving air force is exerted on this sail, the ticket will not travel as it should do nearly at the speed of the air travel, in the tube 10.

I claim—

1. In a telephone ticket distribution system, wherein tickets containing memoranda are transmitted through pneumatic tubes rectangular in cross section, a ticket having a main body, a sail, and an air deflector, the sail and air deflector being hinged at the top and bottom of the body of the ticket, the sail being of sufficient width to extend across the width of the inside of the tube, and allow a portion of its end to lie against the inside of the tube opposite to that on which the body of the ticket rests and the deflector being deflectable upward under the impulse of the air current in the tube.

2. In a telephone ticket distributing system wherein tickets containing memoranda are transmitted through tubes rectangular in cross section, a ticket having a main body, a sail and an air deflector, the sail and air deflector being hinged at the top and bottom of the ticket, the sail being of sufficient width to extend across the width of the inside of the tube and allow a portion of its end to lie against the inside of the wall of the tube opposite to that against which the body of the ticket rests and the deflector being deflectable upward under the influence of the air current in the tube and wherein the width of the deflector is less than the distance between the wall of the tube against which the body of the ticket rests, and the wall of the tube opposite thereto.

3. The device defined in claim 2 wherein the width of the body of the ticket is substantially the length of the longer width of the tube.

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