C. O. MOE.

TICKET TUBE.

APPLICATION FILED SEPT. 7, 1915.

1,202,086.

Patented Oct. 24, 1916.

2 SHEETS—SHEET 1.

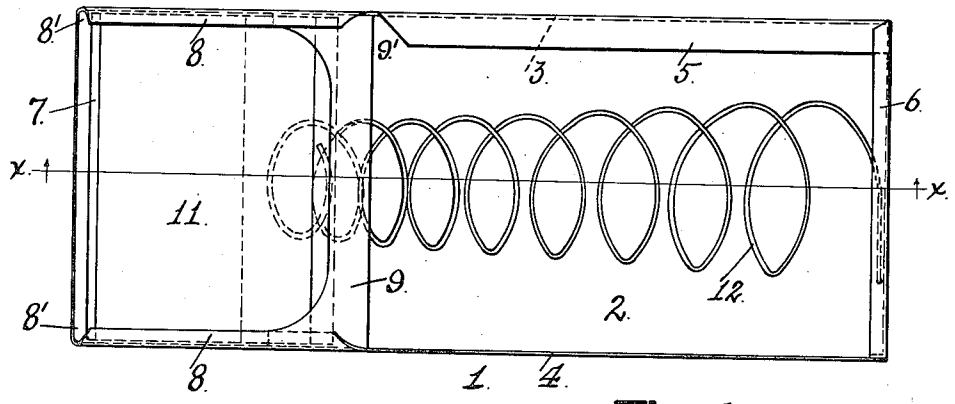


Fig. 1.

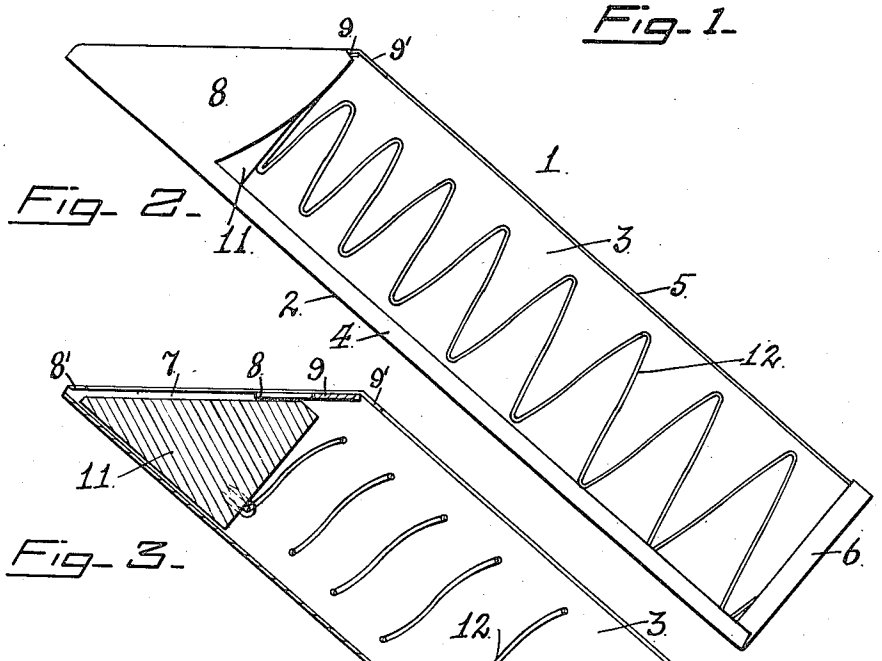


Fig. 2.

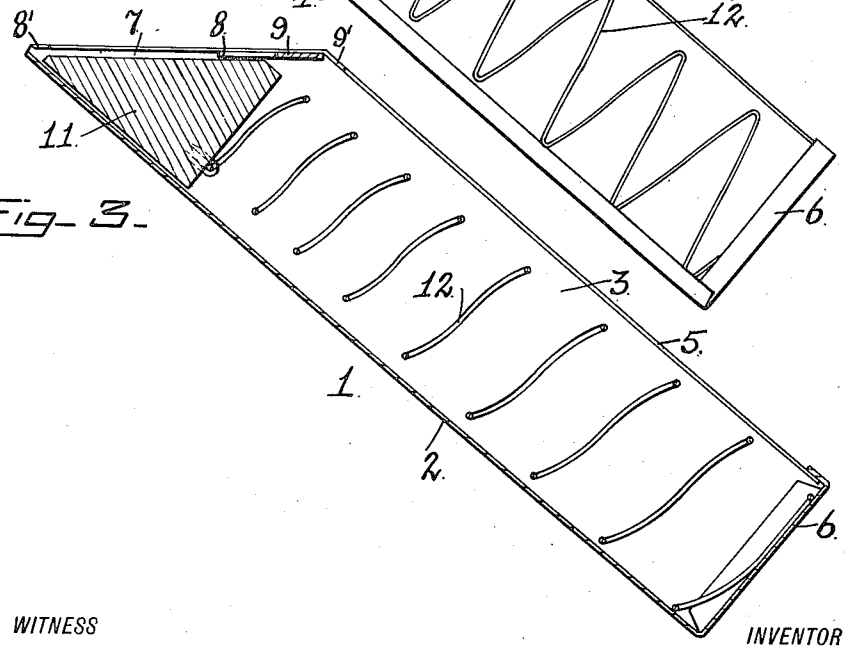


Fig. 3.

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2 SHEETS—SHEET 2.

Fig. 4.

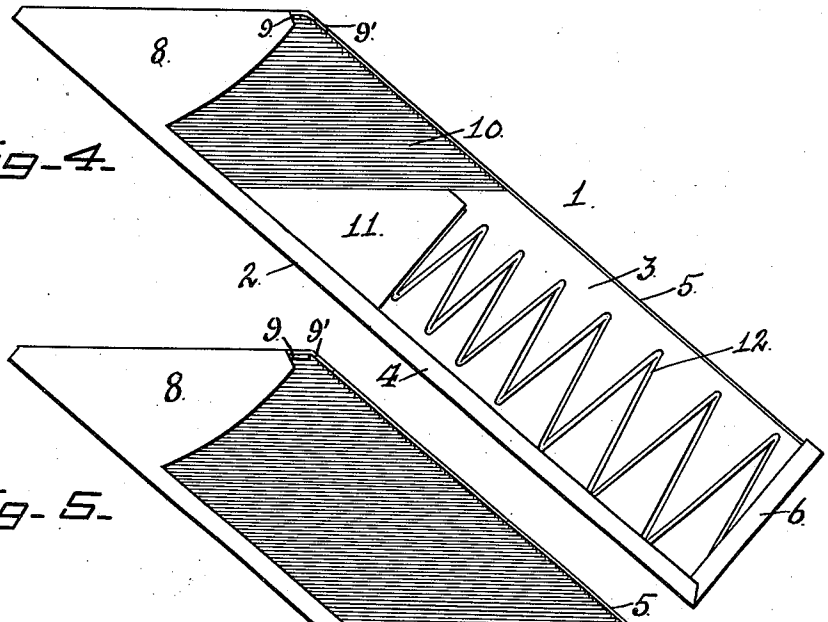
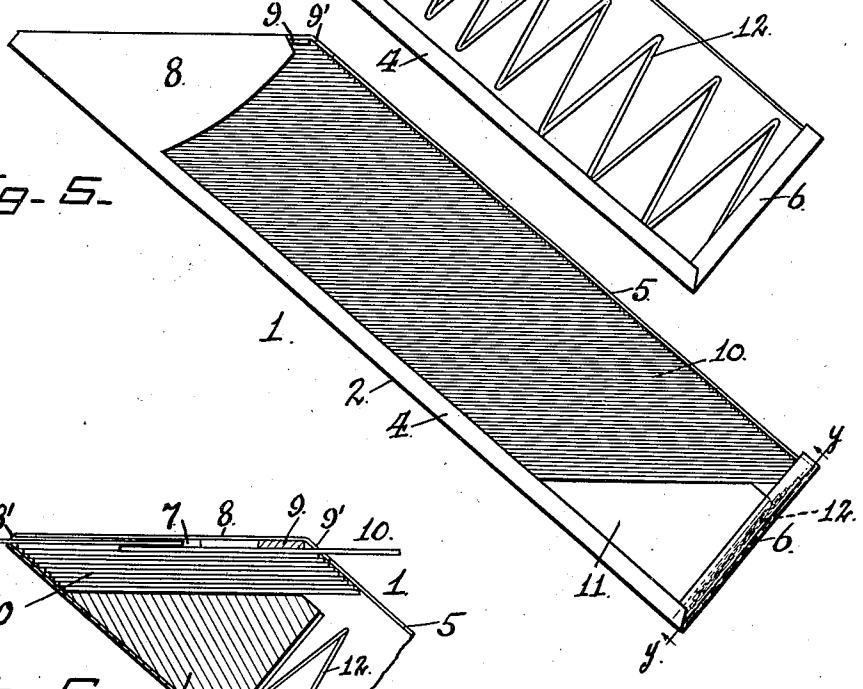


Fig. 5.



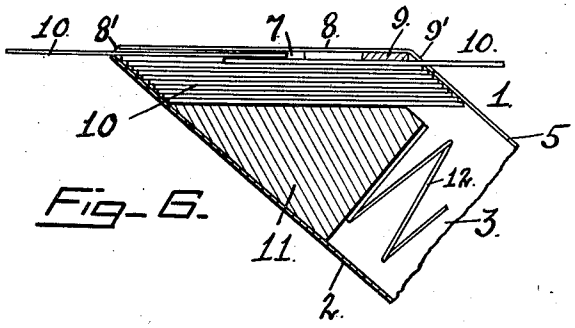
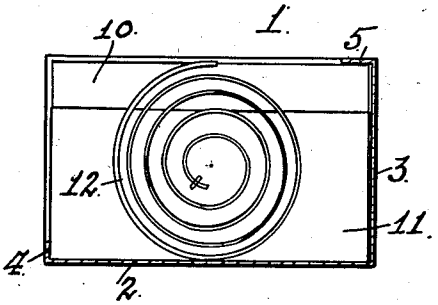


Fig. 6.

Fig. 7.



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CHARLES O. MOE, OF OAKLAND, CALIFORNIA.

TICKET-TUBE.

1,202,086. Specification of Letters Patent. Patented Oct. 24, 1916.

Application filed September 7, 1915. Serial No. 49,147.

To all whom it may concern:

Be it known that I, CHARLES O. MOE, a citizen of the United States, residing at Oakland, in the county of Alameda and State of California, have invented certain new and useful Improvements in Ticket-Tubes, of which the following is a specification.

My invention relates to that class of ticket-tubes in which the delivery end of the column or pile of tickets is constantly presented to the withdrawal aperture by spring pressure.

My invention consists in certain improvements relating to the construction of the tube, and to the spring-pressure means, said improvements having in view greater facility in replenishing the tube with tickets; the more perfect guidance of the tickets in the tube; and economy in space, adapting the tube for a maximum number of tickets. These improvements and the manner in which they attain the objects intended will now fully appear from the following description taken in connection with the accompanying drawings, in which—

Figure 1 is a top plan view of my ticket-tube. Fig. 2 is a side elevation of the same. Fig. 3 is a section of the same on the line x—x of Fig. 1. In Figs. 1, 2 and 3 the tube is exhausted of tickets. Fig. 4 is a side view of the ticket tube, showing it partly filled with tickets. Fig. 5 is a similar view showing the tube filled to its capacity with tickets. Fig. 6 is a fragmentary section of the delivery end of the tube showing a ticket being slipped out in either direction. Fig. 7 is a section on the line y—y of Fig. 5, showing the flattened spring.

The tube, which is indicated as a whole by the numeral 1, is formed with two contiguous complete or closed sides 2 and 3, the remote or free edges of which are bent inwardly at right angles to form narrow guide flanges 4 and 5 respectively, said flanges thus constituting portions of the other two sides, which are otherwise open. This construction is clearly shown in Fig. 7.

The tube has one complete or closed end 6, as seen best in Fig. 3. Its other end is inclined and in said end is made the withdrawal aperture 7, bounded by the side flanges 8, and the cross bar 9. One of these aperture-bounding side flanges 8 is formed from the complete closed side 3 of the tube, its edge being bent over on the front, as shown in Fig. 1, and the other is formed from the narrow guide flange 4 by carrying it up to approximately the full height of the tube, as shown in Figs. 2, 4 and 5, and bending the free edge over on the front as shown in Fig. 1. Thus both aperture-bounding flanges 8 are symmetrical and serve as guides the full height of the ticket stack. A free space 8′, shown clearly in Fig. 1, is left between the adjacent extremities of the side flanges 8, and the closed or full sides 2 and 3, of sufficient capacity to permit the foremost ticket to be slipped therethrough, as seen in one instance in Fig. 6, by the pressure of the thumb of the operator exerted through the aperture 7. Similarly the relation of the outer edge of the cross bar 9 with the adjacent end of the flange 5 of the side 3 is such as to leave a space 9′, as seen in Fig. 1, sufficient to free said foremost ticket, to enable it to be slipped out in that direction if desired, as is shown in another instance in Fig. 6. In a general way this is the usual form of withdrawal aperture in well known tubes of this class, but my improvements in this connection lie, first, in having the lower surface of the guide flange 5 level with the outer edge of the cross bar 9, so that the tickets 10, the edges of which are level with the edge of the cross bar lie snugly behind said flange, as shown in Figs. 4, 5 and 6, and are thus better held in place and guided in their movement as a column or pile; and, second, in having both the aperture-bounding side flanges 8 the full height of the withdrawal aperture, leaving the guide flanges 4 and 5 very narrow, their width being only sufficient to serve as guides, but insufficient to act as an inconvenient closure of the open sides in the planes of which said flanges lie. The tickets 10, being supplied to the tube through these open sides, may be thus fitted to place more conveniently by reason of the narrow guide flanges than if said flanges were wide enough, as is commonly the case, to partly close said side.

The tickets 10, it will be seen by reference to Figs. 4, 5 and 6, lie in the tube in an inclined position parallel with the inclined withdrawal front of said tube. In the triangular space which is therefore necessarily left at the rear of the ticket column, I place a triangular follower-block 11, which lies well within said space, so that the rearmost upper edge of the ticket column may extend fully to the closed end 6 of the tube,

without interference from said block, which thus occupies otherwise waste space. This is fully shown in Fig. 5. Therefore, the tube may be filled to its capacity as far as the follower-block is concerned. Now to provide the necessary spring pressure without affecting this full capacity of the tube, I employ a tapering helical spring 12, one end of which is fastened to the closed end 6 of the tube, and the other end is fastened to the follower-block 11. When the tube is full of tickets and the block is pressed to its limit of movement toward the closed end 6, the spring 12 being fully compressed lies flat against said end, as seen in Fig. 5, because of its taper shape, and thus the whole spring-pressure means, comprising the block and the spring, take up no available room in the tube. Moreover the block and spring furnish an even and reliable pressure, holding the ticket column firmly and constantly to the withdrawal aperture; and the spring is of a character which does not readily lose its tension, a feature very desirable where the ticket-tube forms one of many carried in a rotatable case, the movement of which is liable to jar the tickets out of the tube unless they are well held in place.

I claim:

1. A ticket-tube adapted to contain a stack of tickets, comprising a tube formed with two contiguous closed sides the free edges of which are bent inwardly to form narrow guide flanges constituting portions of the remaining sides which are otherwise open, said tube having at one end a withdrawal aperture bounded on opposite sides by inwardly bent flanges both of which are carried to the full height of the withdrawal aperture and their ends spaced from the adjacent sides of the tube to form withdrawal openings at two opposite sides of said end, and a spring for forcing the stack of tickets within the tube against said end flanges.

2. A ticket-tube adapted to contain a stack of tickets, comprising a tube formed with two contiguous closed sides the free edges of which are bent inwardly to form narrow guide flanges constituting portions of the remaining sides which are otherwise open, said tube having at one end a withdrawal aperture bounded on opposite sides by inwardly bent flanges both of which are carried to the full height of the withdrawal aperture and their ends spaced from the adjacent sides of the tube to form withdrawal openings at two opposite sides of said end, a cross bar bridging said end flanges, the outer edge of said bar lying level with the inner surface of and spaced from the adjacent guide flange of one side of the tube to permit the withdrawal of a ticket thereunder, and a spring within the tube for forcing the stack of tickets against said end flanges.

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

CHARLES O. MOE.

Witnesses:
WM. F. BOOTH,
S. CONSTINE.