

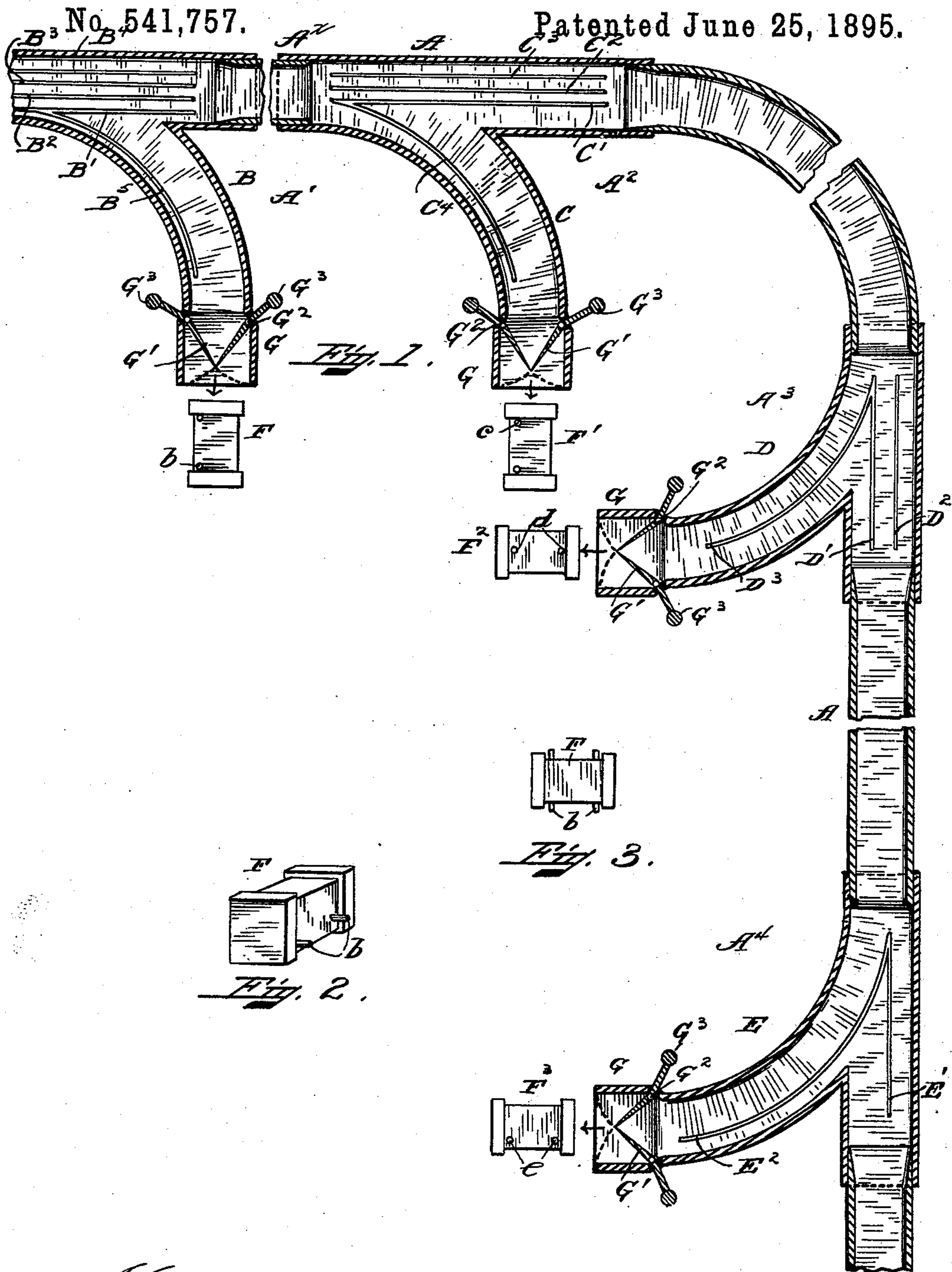
(No Model.)

C. M. JOHNSON.

PNEUMATIC DISPATCH TUBE SYSTEM.

No. 541,757.

Patented June 25, 1895.



Witnesses
S. H. Brown.
E. L. Harlow.

Inventor.
Chas M Johnson
By Edward Rusk
Attys

UNITED STATES PATENT OFFICE.

CHARLES M. JOHNSON, OF NEW YORK, N. Y., ASSIGNOR TO THE LAMSON CONSOLIDATED STORE SERVICE COMPANY, OF BOSTON, MASSACHUSETTS.

PNEUMATIC DISPATCH-TUBE SYSTEM.

SPECIFICATION forming part of Letters Patent No. 541,757, dated June 25, 1895.

Application filed March 29, 1893. Serial No. 468,238. (No model.)

To all whom it may concern:

Be it known that I, CHARLES M. JOHNSON, of New York, county and State of New York, have invented certain new and useful Improvements in Pneumatic Dispatch-Tubes; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a pneumatic dispatch tube system having a number of stations on a line, and has for one of its objects to provide suitable mechanism for switching the carriers, passing through the main tube, to the proper branch tube leading to the respective stations. These and other objects are accomplished by the apparatus hereinafter described and shown.

My invention consists of certain novel features, arrangements, and constructions hereinafter described and particularly pointed out in the claim.

In the accompanying drawings, Figure 1 represents a central section through the main tube and branch delivery tubes of my improved pneumatic system, with the carrier belonging to each station placed at the end of the delivery tube from which it is discharged. Fig. 2 represents a perspective view of one of the carriers. Fig. 3 represents a plan view of one of the carriers.

In the drawings, like letters of reference refer to like parts throughout the several views.

A represents the main tube of a pneumatic dispatch tube system, and it is provided with four stations, A', A², A³, and A⁴, which are provided respectively with the downwardly discharging branch delivery tubes B, C, D, E. The station A' has the bars B', B², B³ and B⁴, the station A² has the bars C', C², C³, the station A³ has the bars D', D² and the station A⁴ has the bar E', all of which bars lie in the direction of travel of the carriers, and are about one-eighth of an inch in depth and three-eighths of an inch vertically apart, and are located on the two opposite sides of the interior of the tube. The curved bars B⁵, C⁴, D³ and E² extend respectively from the stations A', A², A³, A⁴ into the branch delivery

tubes B, C, D, E, and aside from being curved, are identical in construction with the straight bars above described, and are located on the two opposite sides of the branch tubes.

The carriers F, F', F², F³ belong respectively to the stations A', A², A³, A⁴, and are respectively provided on two opposite sides at different vertical heights with the lugs b, c, d, e, which are adapted to ride on the straight bars during the travel of the carriers past the stations to which they do not belong, or to be caught under the curved bars and delivered at their proper stations by gravity through the downwardly discharging branch tubes. Suppose the carrier F² is introduced at the cashier's end to be sent to the station A³, upon reaching the station A' the lugs d ride upon the bars B², on each side of the station A', and the carrier passes that station; at station A² the lugs d ride upon the bars C' and pass that station, and upon reaching the station A³ the lugs d pass under the curved bars D³ on each side of the branch tube, and the carrier F² enters the branch tube D and is discharged therefrom, the valve G' opening by the momentum of the carrier. If the carrier F' is introduced at the cashier's end the lugs c, riding upon the bars B' at station A', pass under the curved bars C⁴ as the carrier reaches the station A², and the said carrier is switched into the branch tube C, from which it is discharged by gravity.

If the carrier F is introduced into the main tube A at the cashier's end, the lugs b pass under the curved bars B⁵ and the carrier is switched into the branch tube B from which it is discharged. If the carrier F³ is introduced at the cashier's end into the main tube A, the lugs e ride upon the straight bars at the other stations, that is upon the bars B³ at station A', upon the bars C² at station A², upon the bars D' at station A³, and said lugs are caught under the curved bars E² at station A⁴, and the carrier is switched into the branch tube E from which it is discharged by gravity.

The lower end of each branch tube is enlarged to form a hood G, at the upper end of which the V-shaped valve G' is pivoted at G². The counterweights G³ are secured to the valve to assist in the closing of the same after a car-

rier has been discharged, and the valve closes by the suction in the system and the counter-weights.

The carriers are returned to the cashier
5 through the usual continuous pneumatic tube. I have shown only four stations on the line, but more may be used if desired. The tube is shown as square, in order to secure the proper interlocking of the co-acting parts, but
10 any other shape by which the carrier is prevented from rotating so as to secure the proper co-acting of the parts can be used.

I do not limit myself to the exact arrangement and construction shown as the same may
15 be varied without departing from the spirit of my invention.

Having thus ascertained the nature and set forth the construction of my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—
20

In a pneumatic dispatch tube system, a main tube, branch tubes leading therefrom, a carrier, switching guides located at each branch tube and on opposite sides for diverting the carrier into its respective branch tube, 25 means located on opposite sides of the carrier arranged correspondingly to the switching guides to divert the respective carrier into its proper branch tube upon the engagement of said means and switching guides, and 30 oppositely arranged supporting guides located at each branch tube for supporting the carrier by engagement therewith of said means in its travel through the main tube toward its respective branch tube.

CHARLES M. JOHNSON.

Witnesses:

JOHN L. GAINES,
HERBERT C. MADGE.