

No. 640,998.

Patented Jan. 9, 1900.

A. P. DODGE.

TURNSTILE.

(Application filed Apr. 14, 1899.)

(No Model.)

2 Sheets—Sheet 1.

FIG. 1.

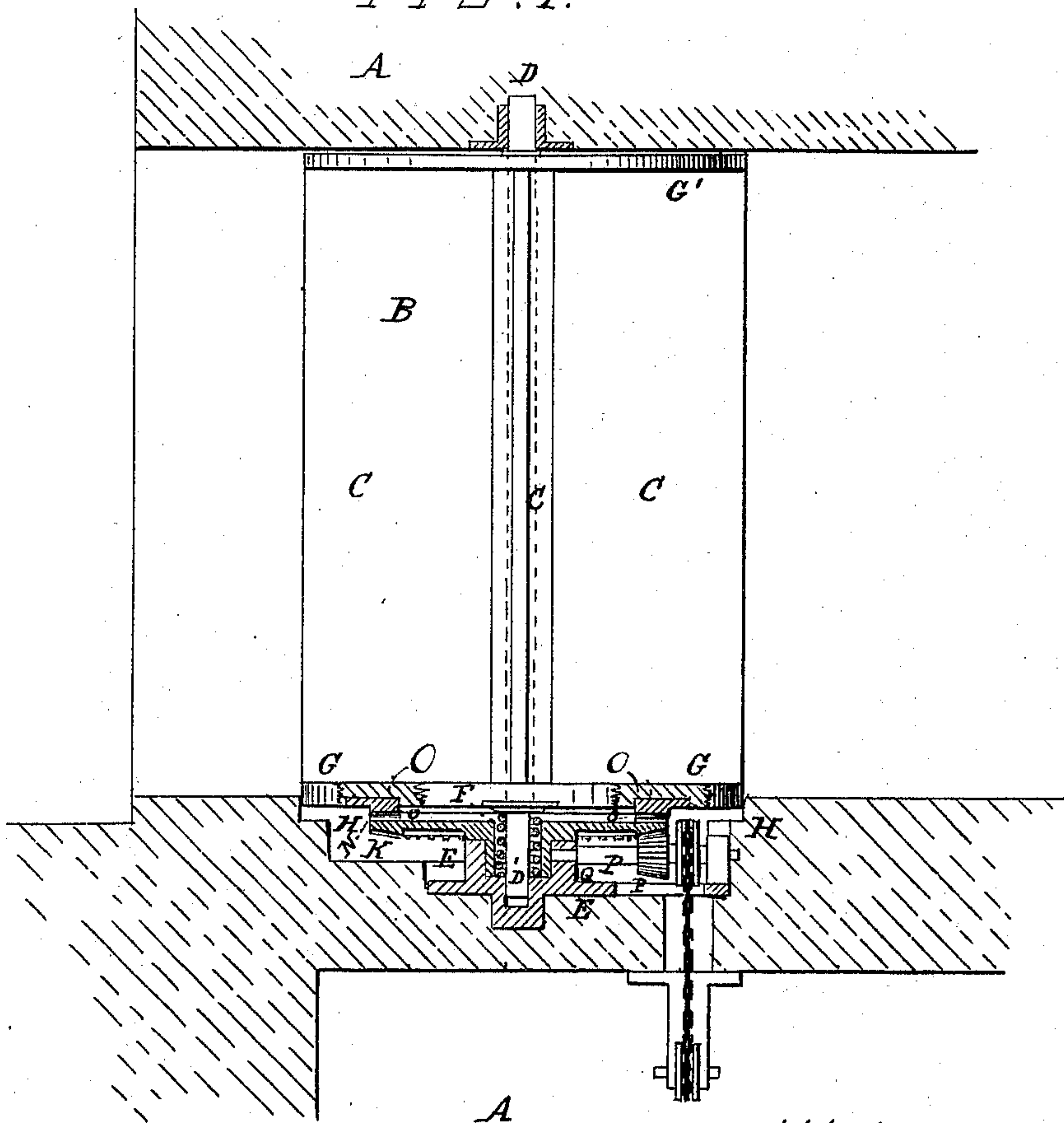
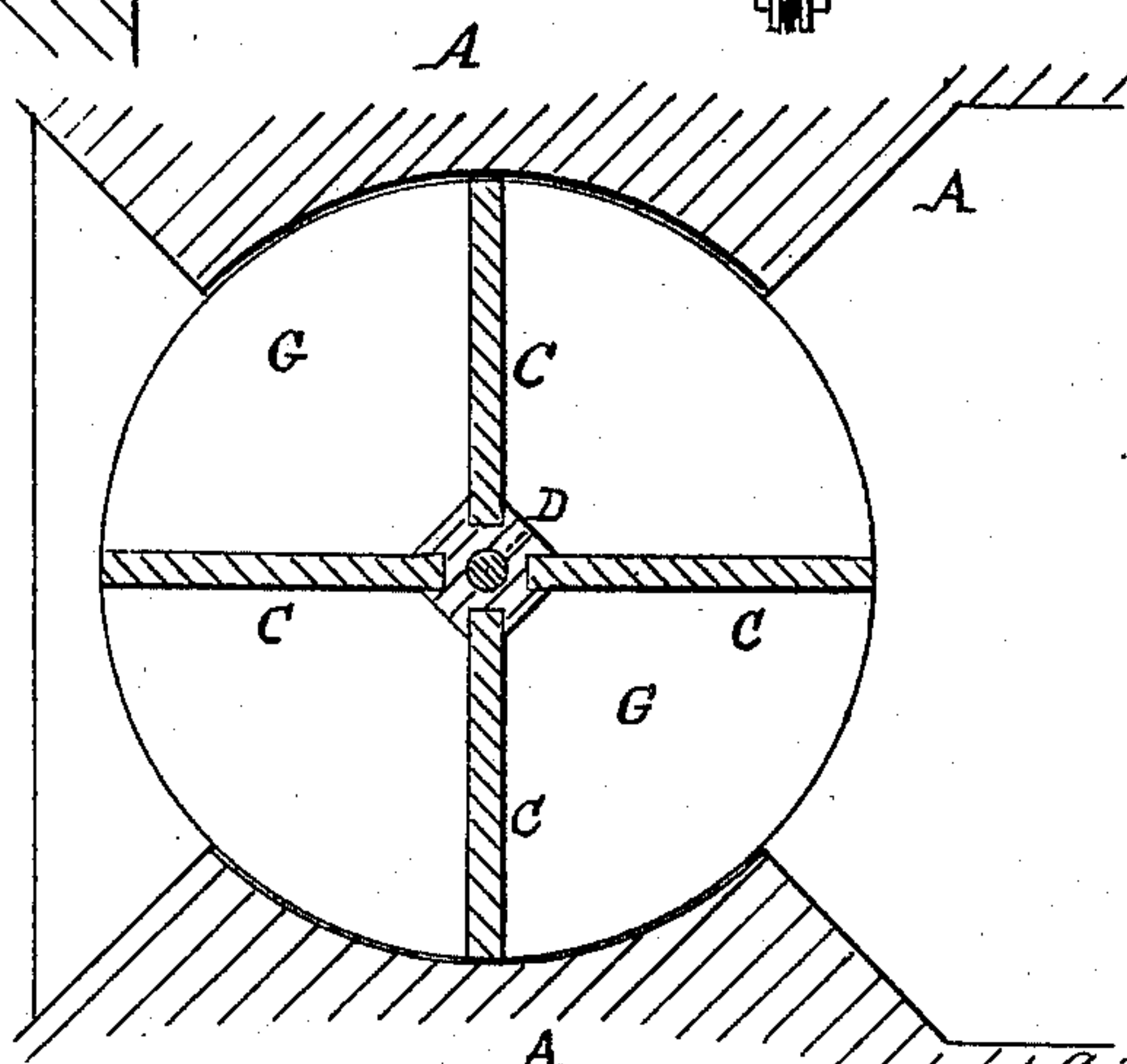


FIG. 2.



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TURNSTILE.

SPECIFICATION forming part of Letters Patent No. 640,998, dated January 9, 1900.

Application filed April 14, 1899. Serial No. 713,040. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR PILLSBURY DODGE, a citizen of the United States, residing at New York city, State of New York, have
5 invented certain new and useful Improvements in Turnstiles, of which the following is a specification.

This invention relates to an improvement in turnstile-entrances for buildings.

10 The object of the invention is to carry the person as soon as he steps into the turnstile automatically through the same, and as soon as he is landed within the building the turnstile is stopped automatically.

15 In the annexed drawings, forming part of this specification, Figure 1 represents a sectional vertical elevation of an entrance and turnstile of a building constructed in accordance with my invention. Fig. 2 is a horizontal
20 section of the same. Fig. 3 is an enlarged view of the lower part of the platform and its driving mechanism, said parts being in section.

The letter A indicates the entrance of the
25 building, and B is the vertical turnstile, which consists of several radial equidistant vertical partitions or wings C, a central pivot or trunnion D, guided in a bearing in the ceiling of the entrance A, and a trunnion or
30 pivot D', guided in a step-bearing E in a central cavity in the floor of the entrance way or passage.

On the bottom ends of the partitions C is constructed and attached a horizontal circular
35 step floor or platform G of the same radius as the partitions or wings C. The top ends of said partitions are also combined and are covered by a horizontal circular top board G'. The entrance-floor has a circular cavity H
40 under the turnstile to permit the platform G to pass freely into the entrance-floor.

Under the platform G is arranged a horizontal bevel gear-wheel K, with a hub guided in the step-bearing E, and the hub of the
45 wheel K has a vertical opening in which is employed a strong spiral spring F, surrounding the trunnion D', guided in the step-bearing E. The spiral spring F rests on the bottom of the bearing E, and its top end presses
50 against the bottom side of the platform G, and is of a strength sufficient to balance the weight of the turnstile. The upper side of

the bevel-gear K has a circular rim N, and on the bottom side of the platform G is secured a ring O to engage with its bottom face
55 the upper opposite face of the rim N by being pressed down upon it. The bevel gear-wheel K is toothed on the bottom side of its rim and engages a bevel pinion-gear P, mounted upon a horizontal counter-shaft Q, arranged under the bevel gear-wheel K, and
60 the shaft Q is driven through power derived from the elevator or other power in the building. The circular rim N may engage the rim O by one of them having teeth or projections
65 and the other cavities, or both may be made to engage by friction. As soon as the person steps upon the platform G the spring F yields to the weight and pressure of the person, thus engaging the rim O with the moving
70 rim N and causing the automatic motion of the turnstile, carrying the person through the entrance. As soon as the person steps off the platform G the rims O and N disengage by the action of the spring F, and there-
75 by the turnstile is stopped. The rim N is shown more clearly in Fig. 3. In the ring O I may place a piece of rubber or other material, as at O', to get a better frictional contact with the rim N.
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What I claim, and desire to secure by Letters Patent, is—

1. In combination, a turnstile comprising a platform, driving means for rotating the
85 platform and transmitting means between the platform and driving means arranged to be put into and out of operative engagement by the weight of the person stepping on the platform, substantially as described.

2. In combination in a turnstile, a depressible platform, means for holding it normally
90 up, and driving means below the platform arranged to be thrown into operative engagement therewith when the platform is depressed, substantially as described.
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3. In combination in a turnstile, the wings, a platform or step-board at the lower end of the same connected thereto, a spring under the platform to hold the turnstile normally up,
100 and a rotating drive-wheel below the platform arranged to be thrown into operative engagement with the platform when the same is depressed, substantially as described.

4. In combination, a turnstile having ver-

tical displacement under the weight of a person and means for turning the turnstile, said means being caused to act on the turnstile upon the depression of the same, substantially as described.

5 5. In combination, a turnstile having vertical displacement under the weight of a person, means for lifting the turnstile, and means

for rotating the same when under the weight of the person.

In testimony whereof I affix my signature in presence of two witnesses.

ARTHUR PILLSBURY DODGE.

Witnesses:

REINHOLD BOEKLIN,
CHARLES L. EASTON.