

J. F. PEREY.
TURNSTILE.

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985,544.

Patented Feb. 28, 1911.

2 SHEETS—SHEET 1.

Fig. 1.

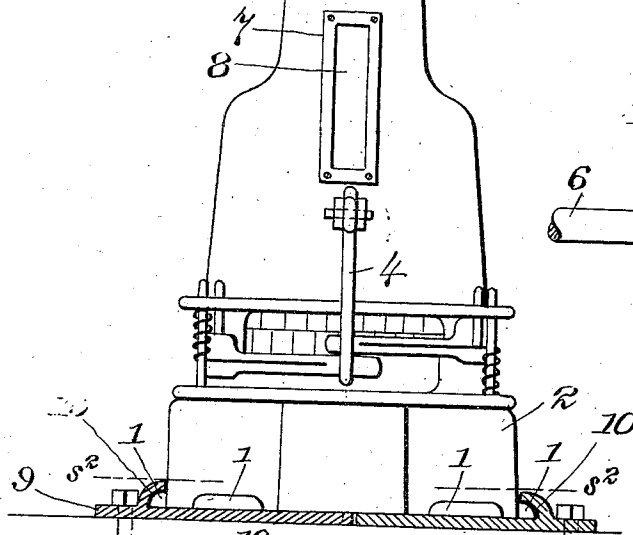
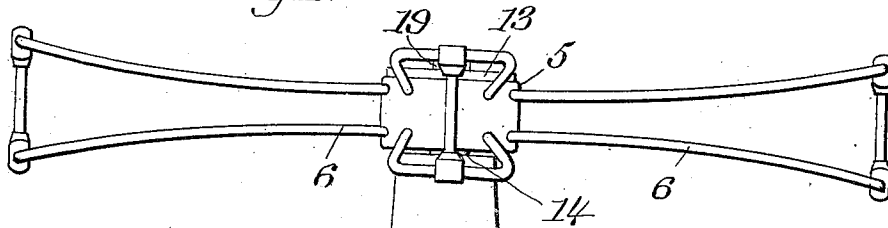


Fig. 5.

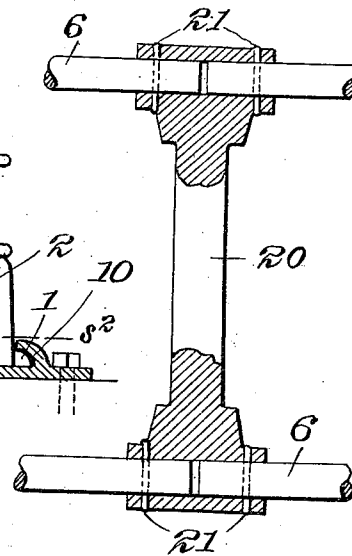
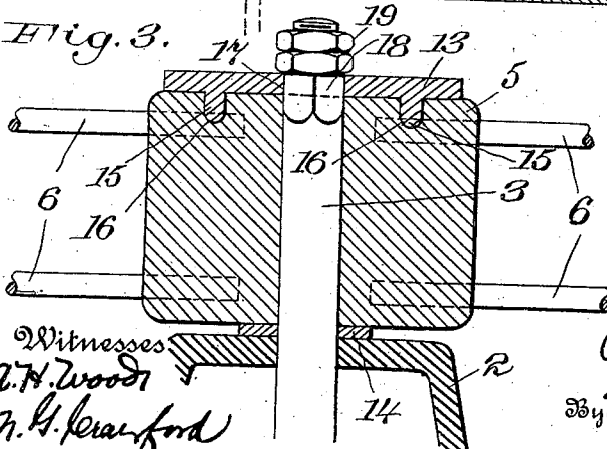


Fig. 3.



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TURNSTILE.

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To all whom it may concern:

Be it known that I, JOHN FRANCIS PEREY, a subject of the Emperor of Germany, residing at New York city, borough of Brooklyn, county of Kings, and State of New York, have invented certain new and useful Improvements in Turnstiles, of which the following is a specification.

My invention relates to certain improvements in turnstiles and particularly to the type having the arms thereof normally locked.

An important feature of the present invention consists in mounting a turnstile in such manner that it will yield or have a limited rotation, as a whole, upon the application of pressure to one or more arms thereof. The object of this feature is to avoid injury to persons who attempt to force a way or rush through a passage controlled by a turnstile and operate the same before the locking mechanism thereof is released.

A further feature of the invention consists in mounting the head carrying the radially disposed arms of the turnstile, in a manner to lock it firmly and securely upon the main shaft, to avoid wear, loosening of parts and the resulting break-down of the machine, also to simplify the construction and assembling of the parts or members of the head and thereby facilitate examination, repair, etc.

The accompanying drawings will serve to illustrate a construction suitable for carrying my invention into effect. I wish it understood, however, that I do not limit myself to the exact construction or arrangement of parts shown, as various changes may be made in the same without departing from the spirit and scope of my invention.

In the drawings: Figure 1 is a view in elevation, partly in section, of a turnstile, showing my improvements applied. Fig. 2 is a horizontal section, on the line s^2 , s^2 , of Fig. 1. Fig. 3 is a central vertical section of the upper portion of the machine. Fig. 4 is a plan view of the head carrying the radially disposed arms of the turnstile. Fig. 5 is a detail sectional view of the outer end of one of the arms.

Referring now to the drawings, a well known type of turnstile is shown, which forms no part of the present invention and is here employed for purposes of illustration and convenience only to show the ap-

plication of my improvements. In setting up such a turnstile for use, it has been customary heretofore, to secure it directly to the floor by means of bolts, screws or the like (not shown) which passed through openings in lugs 1, projecting outwardly from the bottom of the casing 2. This method of fastening served to hold the turnstile firmly and securely in position and prevented any yielding action whatever, as for example, when a person attempted intentionally or otherwise, to force a passage before the mechanism locking the arms, had been released.

Extending upward through the casing 2, there is a central shaft 3, which is normally locked against rotation in either direction, by suitable ratchet mechanism (not shown). The release of this mechanism is controlled by a lever 4 (Fig. 1,) which may be operated from a distant point by a ticket-seller for example, by means of a chain, cord or like connection (not shown). Mounted on the upper end of the shaft 3, projecting above the casing 2, there is a head 5, provided with a number of arms 6. These arms are radially disposed and are so relatively arranged and proportioned as to extend across and successively bar the passage controlled by the turnstile, in a manner well known in the art.

At a point 7 on the casing 2, a suitable registering indicator 8 is mounted and serves to present a reading of the number of operations of the turnstile or the total number of people who have passed through the way controlled by the machine.

The construction thus far described is old and well known in the art and in use is found objectionable by reason of injuries sustained by persons rushing against the arms barring the passage before the locking mechanism is released, as above pointed out. In order to overcome this objection, I mount the turnstile in a special form of base 9 and interpose rubber or other suitable cushioning material 10, between the casing 2 and the base 9, so as to permit the turnstile as a whole, to yield or have a limited rotary movement upon the application of pressure to one or more of the arms 6. The base 9 is preferably made in sections and provided with an upwardly projecting flange 11, forming an inclosed space or seat, conforming to the outline of the bottom of the casing 2 but slightly larger to admit of

the insertion of the cushioning material, as above described. Pockets 12 are formed at points to receive the lugs 1 of the casing and serve to prevent the turnstile from rocking or being lifted out of the base casting.

Mounted as above described, the entire machine will yield to pressure against the rigidly locked arm barring the passage and thus avoid inflicting serious injury in the event of a person rushing against the same before the locking mechanism is released.

The old form of turnstile is further objectionable, owing first to the difficulty experienced in removably securing the head 5 on the main shaft 3, so as to prevent its working loose and second, to the inaccessibility of the parts and the time and labor required in determining when repairs are necessary and in making the same. All such objections are overcome by applying a locking plate 13 to the upper side of the head. In order to do this successfully, the head is set above and clear of the casing, on an interposed collar 14, which loosely encircles the shaft and provides a suitable bearing on which the head may rotate with a minimum amount of friction. The locking plate 13 has two or more studs 15 projecting therefrom and engaging openings 16 in the upper side of the head and also has a squared opening 17 formed centrally thereof, closely fitting a similarly shaped portion 18 of the shaft. The several parts are secured thus assembled by means of lock nuts 19, threaded on the end of the shaft, as shown in Fig. 3. In the construction just described, the head and the shaft are securely locked together against independent rotation and at the same time, the parts are accessible and removable in a ready and convenient manner.

The arms 6, projecting outward from the head, are made up of approximately J-shaped sections, which are united and held in proper relation at their outer ends by a vertical brace 20. The braces 20 are each made in one piece and are bored out to receive the adjoining ends of the J-shaped sections of the arms, which are secured in position by pins 21.

The operation and many advantages of my invention will be apparent from the foregoing description.

Having, therefore, described my invention, I claim:

1. A turnstile, and a mounting for the turnstile comprising a base, and means permitting limited rotation of the turnstile as a whole relative to the base.

2. A turnstile, and a mounting for the turnstile comprising a base and cushioning means permitting limited rotation of the turnstile as a whole in the base.

3. A turnstile, and a mounting for the

turnstile comprising a separable base and removable cushioning means permitting limited rotation of the turnstile as a whole on the base.

4. A turnstile, comprising a rotating head provided with arms and a support for the head, and a base for the turnstile having means permitting rotation of the turnstile as a whole relative to said base.

5. A turnstile, the arms of which are normally locked against rotation independent of the casing and a mounting permitting the turnstile to yield as a whole to pressure applied to the arm or arms thereof.

6. The combination with a turnstile provided with a shaft normally locked against rotation and having a series of radially disposed arms fast thereon, of means for mounting the shaft and its locking mechanism to yield as a whole to the application of pressure to one or more of the arms.

7. The combination of turnstile mechanism, a containing casing for the mechanism, and a base providing a cushioned mounting for the casing.

8. The combination of turnstile mechanism, a containing casing for the mechanism, and a base yieldingly securing the casing in position.

9. The combination of turnstile mechanism, a containing casing for the mechanism, and a sectional base securing the casing in position and providing a cushioned seat for the casing.

10. The combination of turnstile mechanism, a casing for the mechanism, said casing having a shaped lower portion, and a base adapted to receive the lower portion of the casing and partly inclose the same.

11. The combination of turnstile mechanism, a casing for the mechanism, said casing having a shaped lower portion, a base adapted to receive the lower portion of the casing and partly inclose the same, and cushioning means interposed between the casing and the base.

12. The combination of turnstile mechanism, a casing for the mechanism, said casing having lugs on the lower portion thereof, a base provided with pockets to receive the lugs on the casing and a cushioning material interposed between the casing and the base.

13. The combination of turnstile mechanism, a casing for the mechanism, said casing having an irregularly shaped lower portion, a sectional base removably fitted to said irregularly shaped lower portion and inclosing parts thereof and a cushioning material interposed between the casing and the base.

14. In a turnstile, a casing, a shaft projecting out of the casing, a head mounted on the projecting portion of the shaft, said head being provided with a series of radi-

ally disposed arms, a locking member above the head connecting the head and shaft against independent rotation and means securing the locking member in position.

5 15. In a turnstile, the combination of the main shaft having a shaped portion at or near one end, a head loosely mounted on the shaft below the shaped portion and having a series of radially disposed arms projecting therefrom, a removable locking member fitted on the shaped portion of the shaft and interlocking with the head, and means securing the locking member in position.

15 16. In a turnstile, the combination of a rotatable head having a series of radially disposed arms projecting therefrom, a shaft extending loosely through the head and squared above the same, a plate removably
20 fitted on the squared portion of the shaft and having engaging studs entering openings in the head, and lock nuts securing the plate in position.

17. In a turnstile, a rotatable head, a shaft, a locking plate, and a lock nut securing said head, shaft and plate operatively assembled.

18. In a turnstile, a rotatable head, a shaft carrying the head, a locking plate connecting the shaft and head against independent rotation and a lock nut securing said head, shaft and plate operatively assembled.

19. In a turnstile, a casing, a shaft projecting out of the casing, a head loosely mounted on the shaft above and clear of the casing, a removable plate locking the shaft and head against independent rotation, and one or more nuts threaded on the end of the shaft securing said shaft, head and plate
35 40 operatively assembled.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
