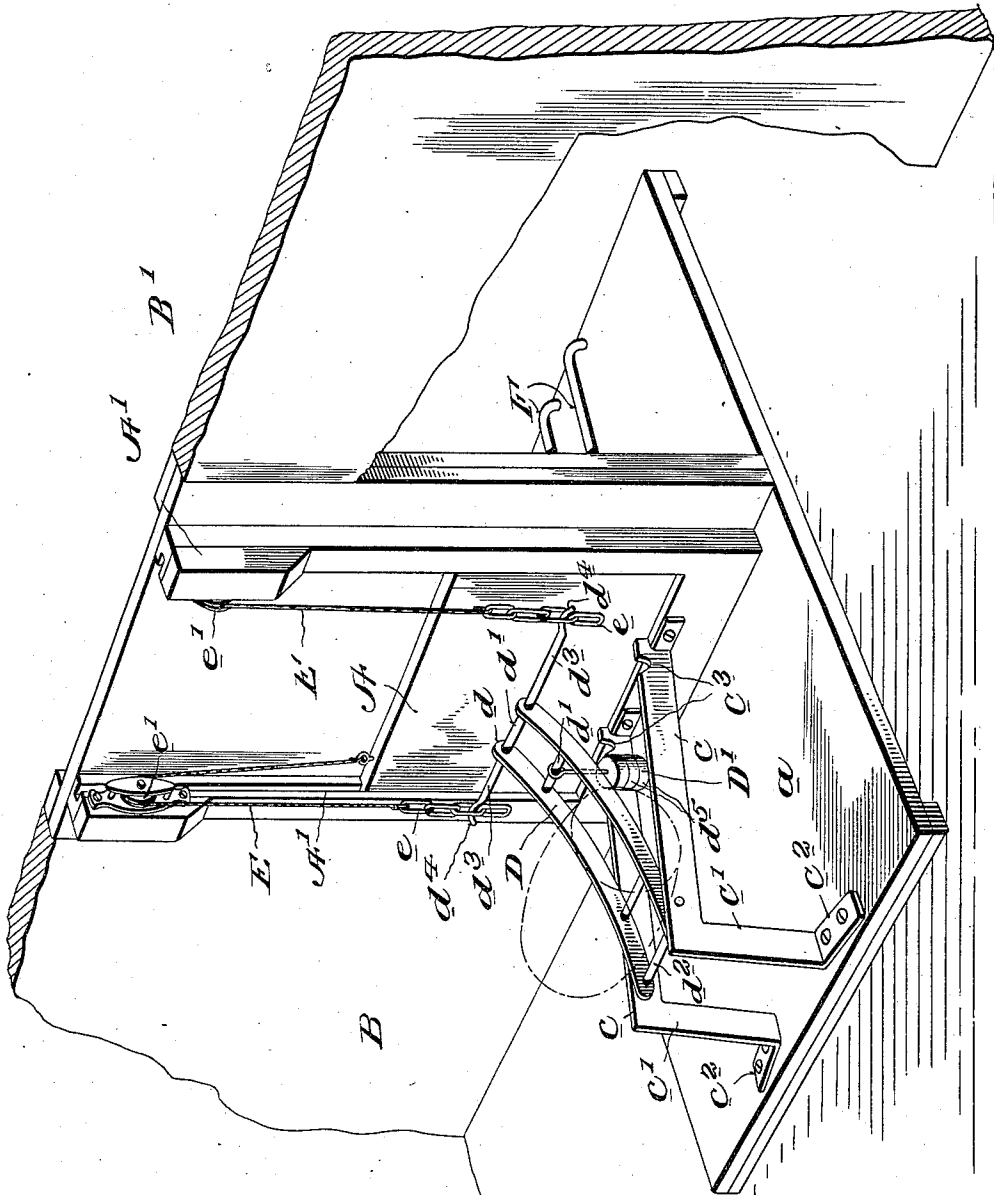


F. E. WENZEL.
 AUTOMATIC DOOR.
 APPLICATION FILED JUNE 13, 1912.

1,044,837.

Patented Nov. 19, 1912.

2 SHEETS—SHEET 1.



Witnesses
Helge H. Munn
Albert P. Kuna
 Fig. 1.

By

Inventor
F. E. Wenzel
Geo. H. Evans
 Attorney

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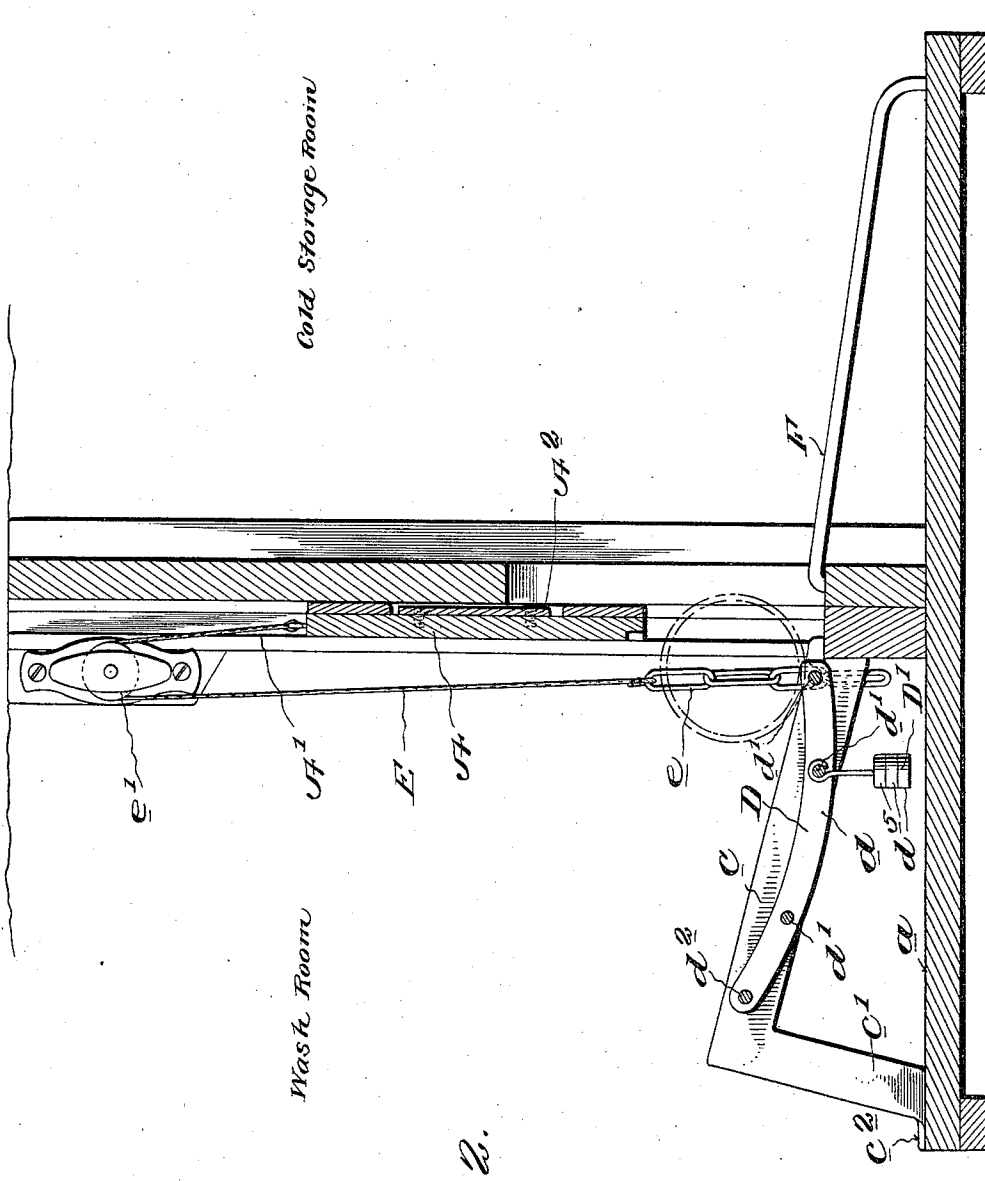


Fig. 2.

Witnesses
 H. H. Mumay
 Albert Perkins

By

Inventor
 F. E. Wenzel
 Geo. H. Evans
 Attorney

UNITED STATES PATENT OFFICE.

FREDRICK E. WENZEL, OF LA CROSSE, WISCONSIN, ASSIGNOR OF ONE-HALF TO EMIL T. MUELLER, OF LA CROSSE, WISCONSIN.

AUTOMATIC DOOR.

1,044,837.

Specification of Letters Patent.

Patented Nov. 19, 1912.

Application filed June 13, 1912. Serial No. 703,489.

To all whom it may concern:

Be it known that I, FREDRICK E. WENZEL, a citizen of the United States, residing at La Crosse, in the county of La Crosse and State of Wisconsin, have invented certain new and useful Improvements in Automatic Doors, of which the following is a specification.

My invention relates to that class of automatically operated doors which are actuated by the article in its passage therethrough.

The objects of the invention are to provide a sliding door with a lever mechanism adapted to be actuated by the passage of the article, such as a beer barrel, as it passes from the wash-room through the door of the cooling or refrigerating room; also to provide for raising the door according to the diameter of the article or barrel to pass thereunder. These objects I accomplish by the mechanism shown in the accompanying drawing, in which—

Figure 1 is a perspective of a doorway between two compartments and provided with my improved automatically operating door. Fig. 2 is a longitudinal vertical section thereof.

A, designates the door sliding in vertical ways A', A', at the sides of the doorway between the wash-room B, and the cold storage room B', of a brewery.

C, is a skid or track at the entrance side of the door formed of parallel inclined bars c, c, having supporting legs c', c', at their higher ends and attaching brackets c², c² engaging the sill a.

D, is a lever formed of parallel curved bars d, d, connected by cross-bars d', d', d', and pivoted at their outer ends between the outer ends of the skid bars c, c, by means of a rod d²; the inner ends of the lever bars d, d, extending close to the door sill a, and are there provided with lateral projections or arms d³, d³ which enter recesses c³, c³, in the bars c, c and limit the downward movement of the lever D. These arms d³, d³, are shown as extensions of the inner cross-bar d'. The outer ends of these arms d³ are formed as hooks d⁴, to engage any one of a plurality of links e, e, on the lower ends of the door-actuating ropes E. The ropes E, or equivalent flexible connections extend from the upper edge of the door over ball-bearing pulleys e', e', and then down to the lever D.

D' is a counterbalance suspended from lever D and having removable weights d⁵, and the door may have a counter-weight A². By means of these counterweights the lever mechanism may be adjusted for operation by barrels of different weights and by means of the links e, e the lever may be made to raise the door A to the height necessary for the passage thereunder of the different sized kegs, &c. When the lowest links e, e, are engaged with the lever hooks d⁴, the door will be raised just high enough for the smallest kegs to pass through and so a minimum escape of cold air is provided for.

In operation, the weight of the door A will hold the lever D raised while a keg or barrel is resting in the position shown to the right in Fig. 2, where it may remain until thoroughly drained. A slight push on the keg or barrel will cause it to depress the lever D and run down the inclined skid. The lever D will have raised the door to the proper height and so the keg or barrel will shoot through the doorway and down an inclined skid F at the opposite side within the cooling room. Since the lever extends to the door sill it will be held depressed and the door held raised till the barrel passes from beneath the door which by reason of its greater weight will quickly descend to its closed position and, in so doing, raise the lever to its operative position. It will be noted that the door is not struck by the descending kegs or barrels which would tend to injure it and get the mechanism out of order.

What I claim is—

1. The combination with a vertically sliding door for cold storage rooms, and a downwardly inclined skid or track leading thereto, of a lever pivoted at its outer end to the skid or track and inclined upwardly from its pivotal point above the skid or track to support a barrel or keg in place on said skid or track, and operative connections between the free end of the lever and the door.

2. The combination with a vertically sliding door for cold storage rooms, and a downwardly inclined skid or track leading thereto, of a lever formed of parallel bars pivoted at their outer ends to the skid or track and inclined upwardly from said pivotal point above the skid or track, operative connections between the raised free end of the

lever and the door, and gradually adjusting devices for changing the throw of said operative connections to raise the door the proper height for barrels or kegs of different sizes.

5 3. The combination with a vertically sliding door for cold storage rooms and an inclined skid or track leading thereto and formed of parallel bars, of a lever formed of parallel bars pivoted at their outer ends
10 between the outer ends of the skid bars and extending at their free ends adjacent to the door, lateral arms extending from the free end of the lever substantially to the sides of the doorway, pulleys above the door and
15 flexible connections extending from the top of the door over the pulleys and down to said lateral lever-arms.

4. The combination with a vertically sliding door for cold storage rooms and a downwardly inclined skid or track leading
20 thereto, of a lever formed of upwardly inclined parallel bars pivoted at their outer ends to the skid or track and extending at their free higher ends adjacent to the door, lateral arms extending from the free end of
25 the lever toward the sides of the doorway, pulleys above the door, flexible connections extending from the top of the door over the pulleys, and down to said lateral arms, and
30 means for lengthening and shortening the

said flexible connections to raise the door, predetermined heights for different sizes of barrels and kegs.

5. The combination with a vertically sliding door for cold storage rooms and an inclined skid or track leading thereto, of a lever extending along the track or skid with its free end adjacent to the door, and having a lateral arm, a pulley above the door, and a flexible connection extending from the top
35 of the door over the pulley and down toward the free end of the lever, and links at the lower end of the flexible connection adapted for adjustable engagement with the said lateral lever arm. 40 45

6. The combination with a vertically sliding door for cold storage rooms and a downwardly inclined skid or track leading thereto, of an adjustably counterweighted lever extending at an upward incline from
50 the outer end of the track or skid alongside the track or skid with its free end adjustably and operatively connected with the door for raising it when actuated by a keg or barrel. 55

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

FREDRICK E. WENZEL.

Witnesses:

DAVID S. LAW,

MARION G. ANDERSON.