No. 801,374. PATENTED OCT. 10, 1905.

W. B. GERVAIS.

GUIDEWAY FOR ELEVATOR DOORS AND THE LIKE.

APPLICATION FILED MAR. 18, 1904.

Fig. 2.

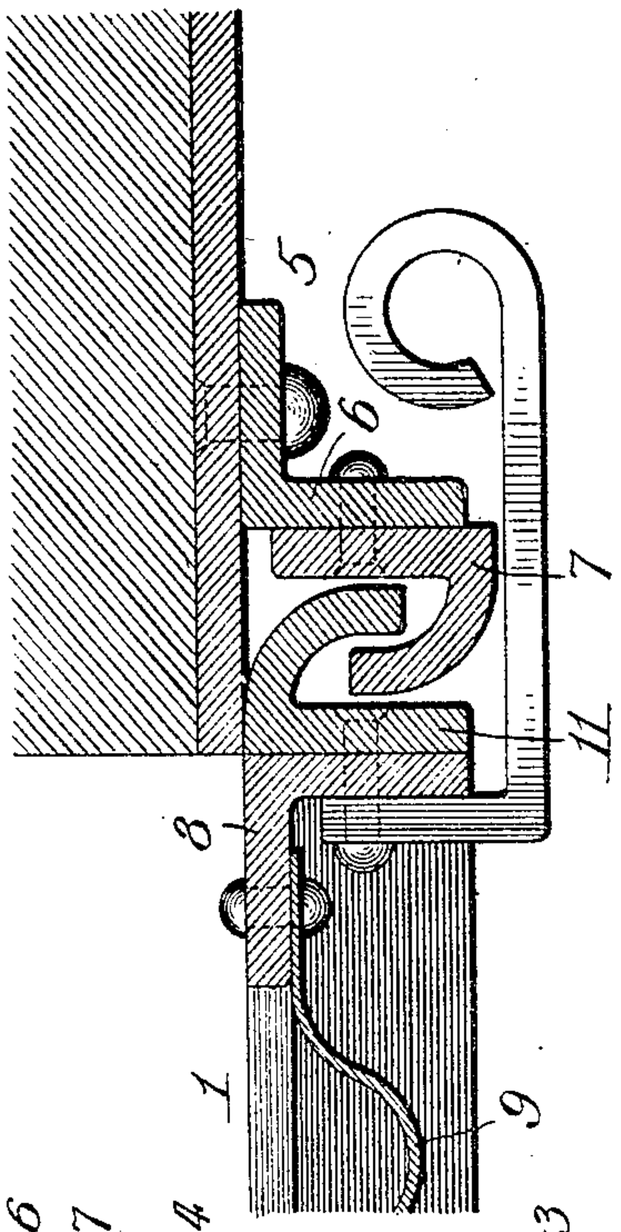
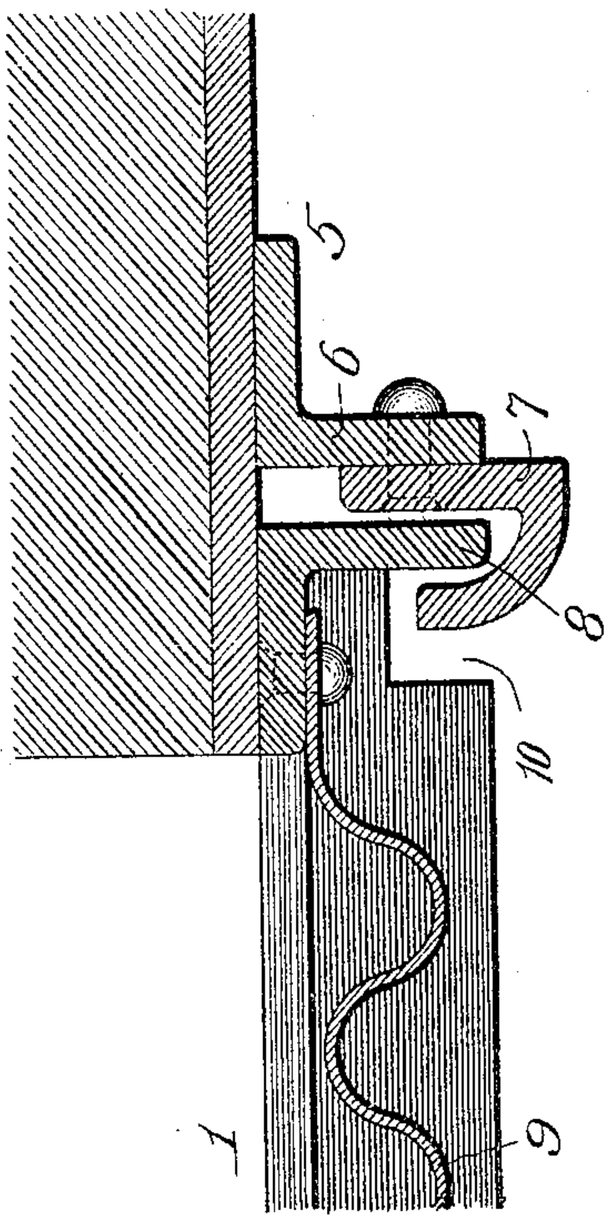


Fig. 3.



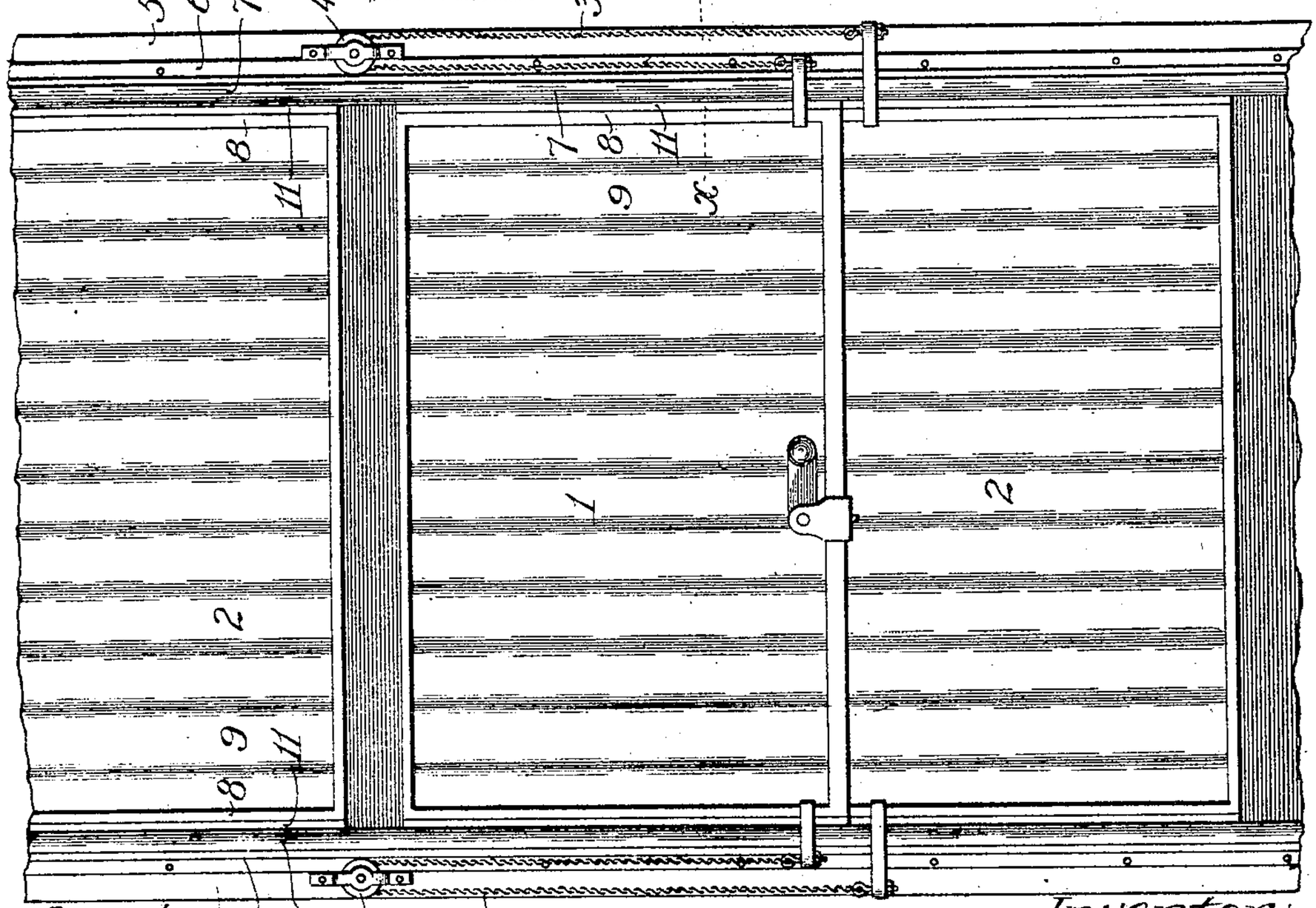


Fig. 1.

Attest:
John Enders
M. A. Holmes.

Inventor:
Wainwright B. Gervais,
by Robert Burns
Attorney.

UNITED STATES PATENT OFFICE.

WAINWRIGHT B. GERVAIS, OF CHICAGO, ILLINOIS.

GUIDEWAY FOR ELEVATOR-DOORS AND THE LIKE.

No. 801,374. Specification of Letters Patent. Patented Oct. 10, 1905.

Application filed March 18, 1904. Serial No. 198,745.

To all whom it may concern:

Be it known that I, WAINWRIGHT B. GERVAIS, a citizen of the United States of America, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Guideways for Elevator-Doors and the Like, of which the following is a specification.

The present invention relates to that class of sliding doors for elevator-wells and like uses which are guided at opposite ends by opposed slides in which the door has movement, and more particularly to the vertically-moving type of such doors, which form the subject-matter of the prior patents of William A. Cross, Nos. 560,396 and 727,098, dated, respectively, May 19, 1896, and May 5, 1903; and the present improvement has for its object to provide a simple, durable, and efficient sliding connection between the door and its guideways, and whereby buckling of the door and the disengagement thereof when exposed to fire is prevented in a very effective manner, all as will hereinafter more fully appear and be more particularly pointed out in the claims.

In the accompanying drawings, illustrative of the present invention, Figure 1 is an elevation of the well-doors of an elevator to which the present invention is applied. Fig. 2 is an enlarged fragmentary horizontal section at line *x x*, Fig. 1. Fig. 3 is a similar view of a modification.

Similar numerals of reference indicate like parts in the different views.

Referring to the drawings, 1 and 2 represent the upper and lower door halves or sections, which constitute the vertically-moving door of an elevator-well, and which door-sections are connected together by chains 3 and pulleys 4, so as to counterbalance each other and render their movements easy, all as set forth in detail in the prior patented constructions heretofore referred to.

The novelty of the present invention relates wholly to the guiding means for the above or other kindred type of sliding doors which move in guideways at opposite sides of the door, and the present improvement accordingly comprises a construction and structural arrangement of parts as follows:

5 5 are counterpart guideways, secured to the wall of the building at opposite sides of the doorway, and each consisting of a structural-iron angle-bar 6, as an attaching means or base and a structural-iron channel-bar 7, secured to the outwardly-projecting web of the angle-bar 6 in such a manner that the web at the free side of such channel-bar will project inwardly toward the building-wall to afford a longitudinal guide channel or groove, as shown. Said grooves or channels are adapted to receive outwardly-projecting longitudinal webs, hereinafter more particularly described, that are carried at opposite ends of the door and engage in said channels to prevent a disengagement of the door under accidental buckling of the door in the case of a conflagration in the building.

In cases where the door is formed with a marginal frame 8 of structural-iron angle-bars and a central panel 9 of corrugated iron attached to said frame, as illustrated in the drawings, the two angle-bars 8, comprising the opposite ends of the marginal frame aforesaid, may be made to constitute the beforementioned outwardly-projecting longitudinal guide-webs of the door, as illustrated in Fig. 3. With such arrangement the transverse or end angle-bars of the said marginal door-frame will be cut away to form clearance-notches 10 for the aforesaid inwardly-projecting web of the channel-bar 7. The provision of such notches 10 are objectionable, however, in that they weaken the lateral stiffness of the door to a material extent, and accordingly the preferred form of the present invention involves a structural arrangement of parts in which such notches are not required. Such construction is illustrated in Fig. 2 of the drawings, and in which 11 represents structural-iron channel-bars secured to the opposite ends of the door and of a counterpart construction to that of the channel-bars 7, heretofore described, and located upon the door in reversed relation to and interlocking with the said bars 7, as shown. Such construction affords a very strong and effective connection for the door to its guideways adapted to resist any ordinary buckling strains and the disengagement of the door when the same is exposed to excessive heat during the spread of a fire in the building through the elevator-walls of the same, and in this connection a material part of the present invention consists in the formation of the base plate or member of the aforesaid channel-bars 7 and 11, with a wide base in order to afford a strong and substantial means of attachment and with a channel-forming flange narrower than such base, in order to permit of the insertion of the securing rivets or bolts by which the channel-

bars are secured in place and which in addition is adapted to afford a compact construction to the guideway as a whole, so that but a minimum amount of clearance between the face of the well-wall and the elevator cage or platform is required.

Having thus fully described my said invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a guideway for sliding doors, the combination of a door provided with guide-webs on opposite ends, and guideways therefor consisting of structural-iron angle-bars adapted for attachment to the building-wall, and structural-iron channel-bars attached to the projecting webs of said angle-bars and having in turn the webs at their free ends projecting toward the building-wall to form guide-channels for the guide-webs of the door, said channel-bars having a broad attaching-base and a narrow channel-forming flange to afford a compact formation of the guideway, substantially as set forth.

2. In a guideway for sliding doors, the combination of a door provided with guide-webs on opposite ends, and guideways therefor consisting of structural-iron angle-bars adapted for attachment to the building-wall, and structural-iron channel-bars attached to the projecting webs of said angle-bars and having in turn the webs at their free ends projecting toward the building-wall to form guide-channels for the guide-webs of the door, the guide-webs on the opposite ends of the door consisting of structural-iron channel-bars arranged in reversed relation to the channel-bars of the guideways and interlocking therewith, said channel-bars having a broad attaching-base and a narrow channel-forming flange to afford a compact formation of the guideway, substantially as set forth.

Signed at Chicago, Illinois, this 6th day of March, 1904.

WAINWRIGHT B. GERVAIS.

Witnesses:
ROBERT BURNS,
M. H. HOLMES.