No. 784,459. PATENTED MAR. 7, 1905.

J. WENDLER.

REVOLVING DOOR.

APPLICATION FILED MAR. 19, 1904.

2 SHEETS—SHEET 1.

fig. 1.

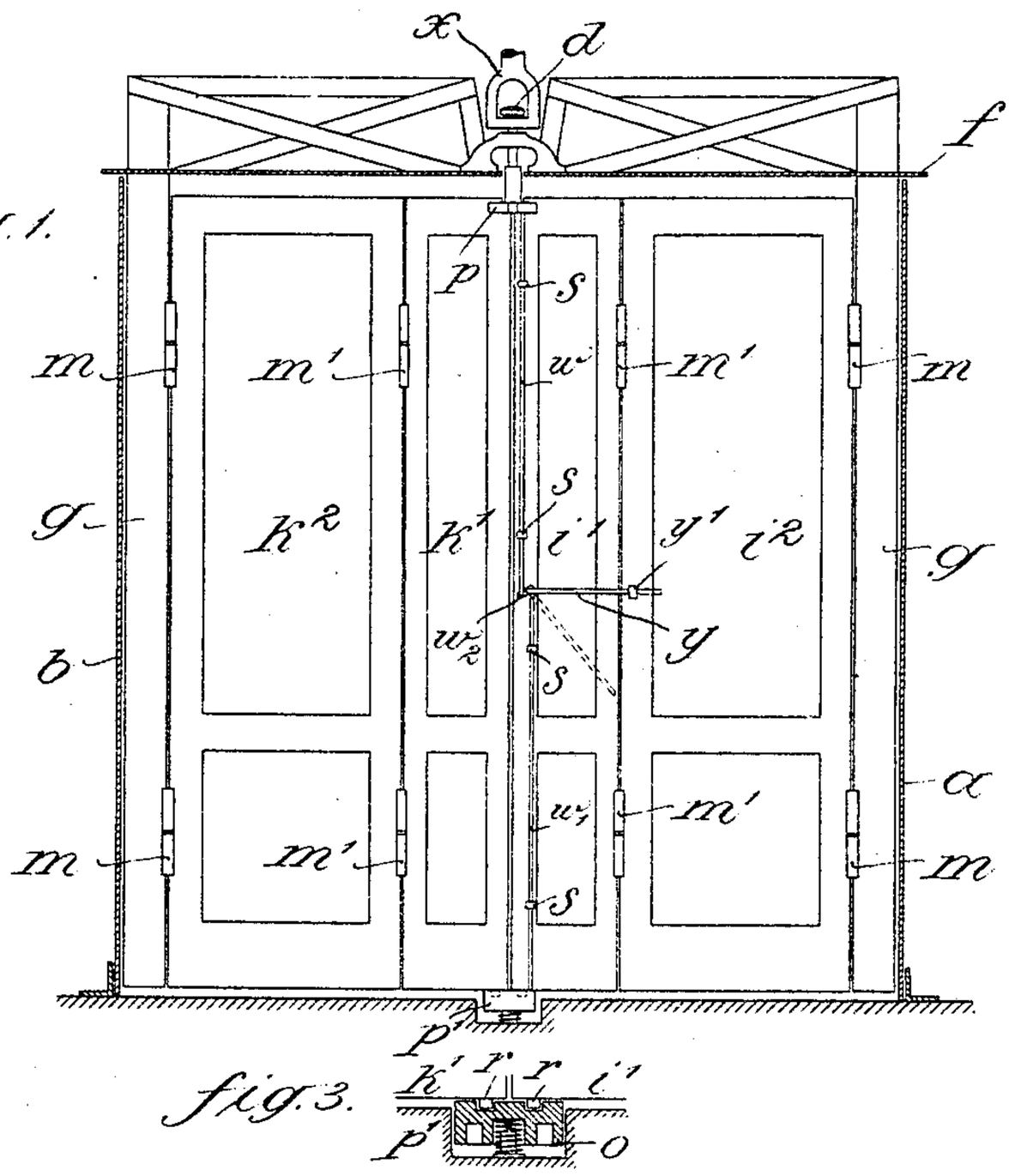
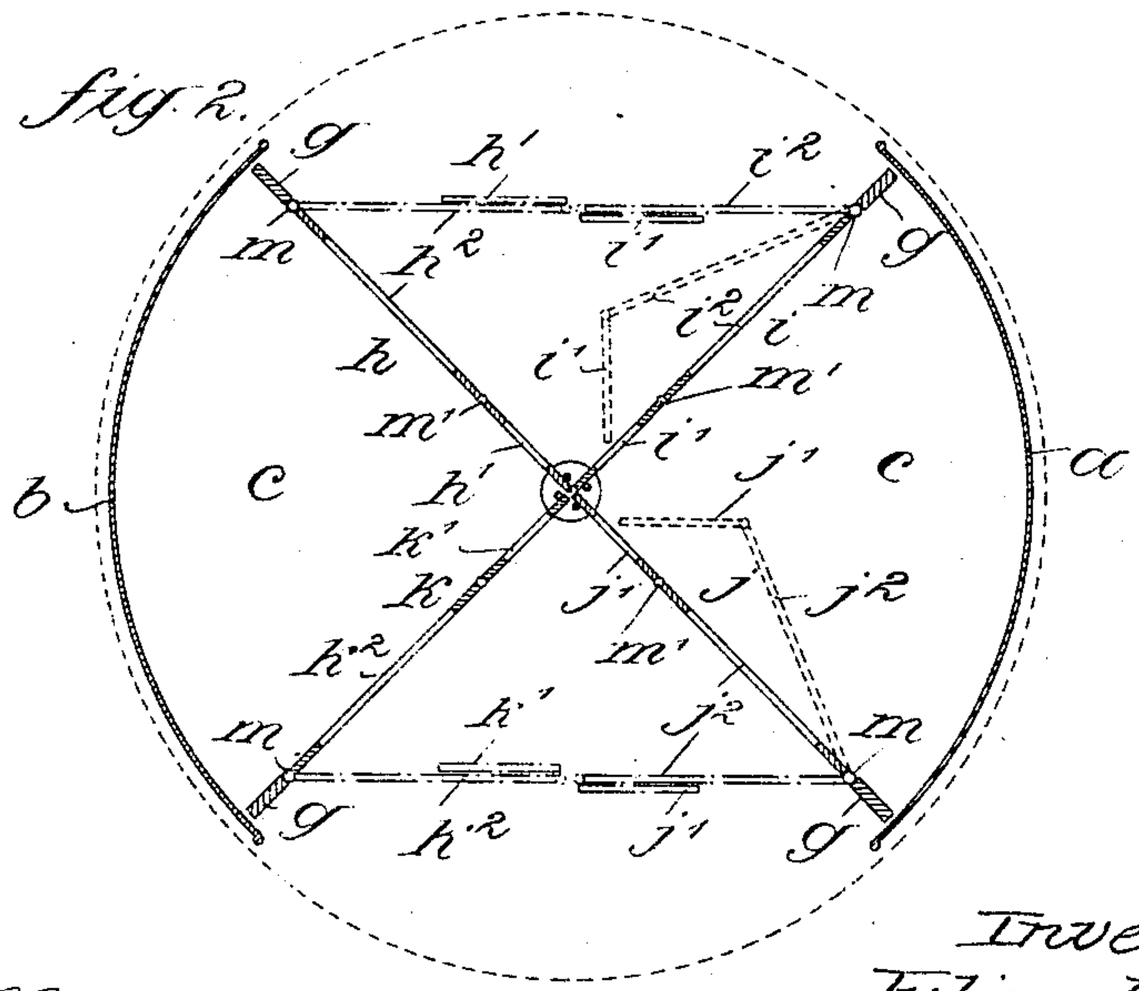


fig. 3.

fig. 2.



Witnesses
H. W. Fuchs
John A. Percival.

Inventor
Julius Wendler
By Richards & Co
Att'ys

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2 SHEETS—SHEET 2.

fig. 4

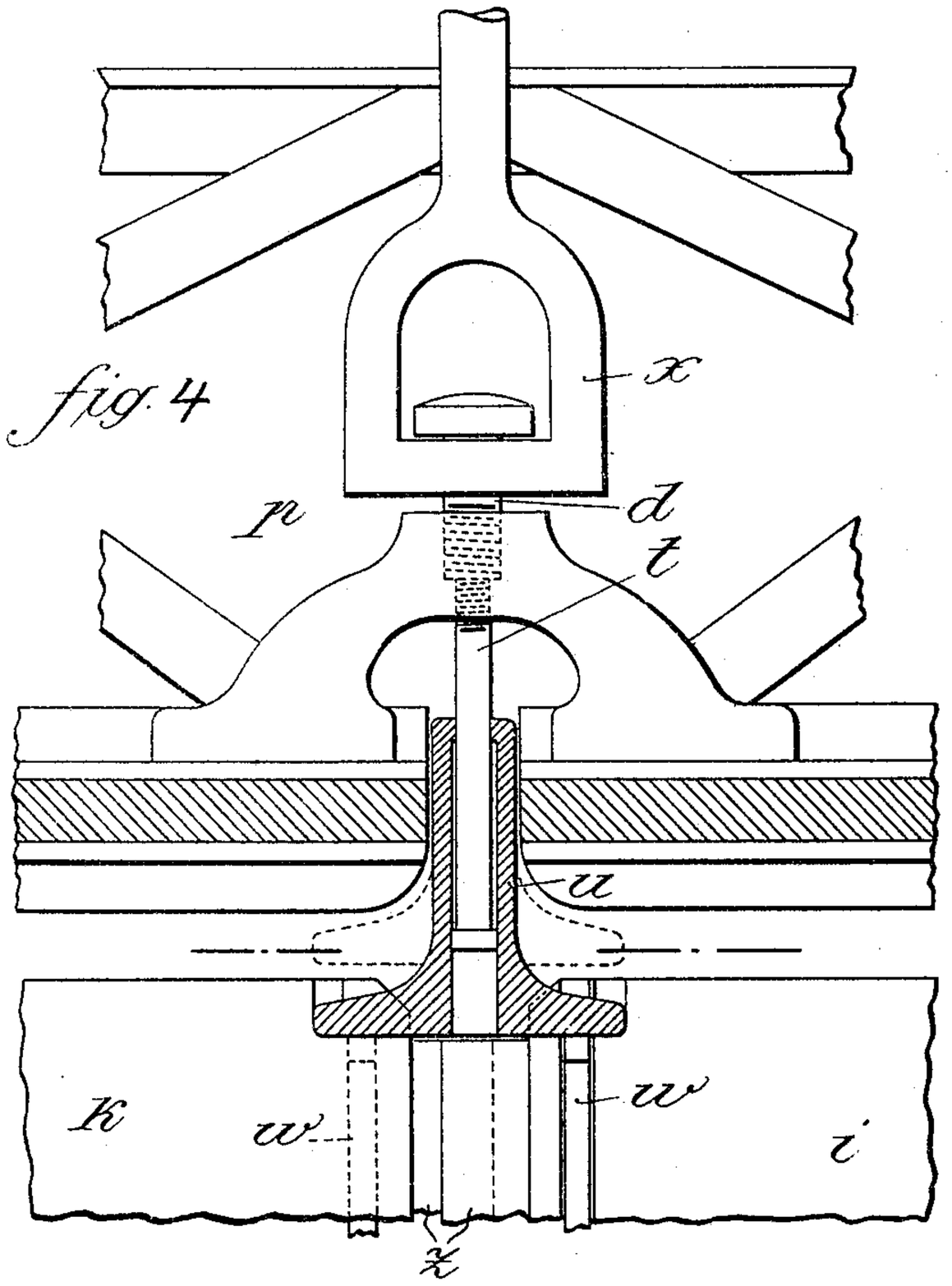
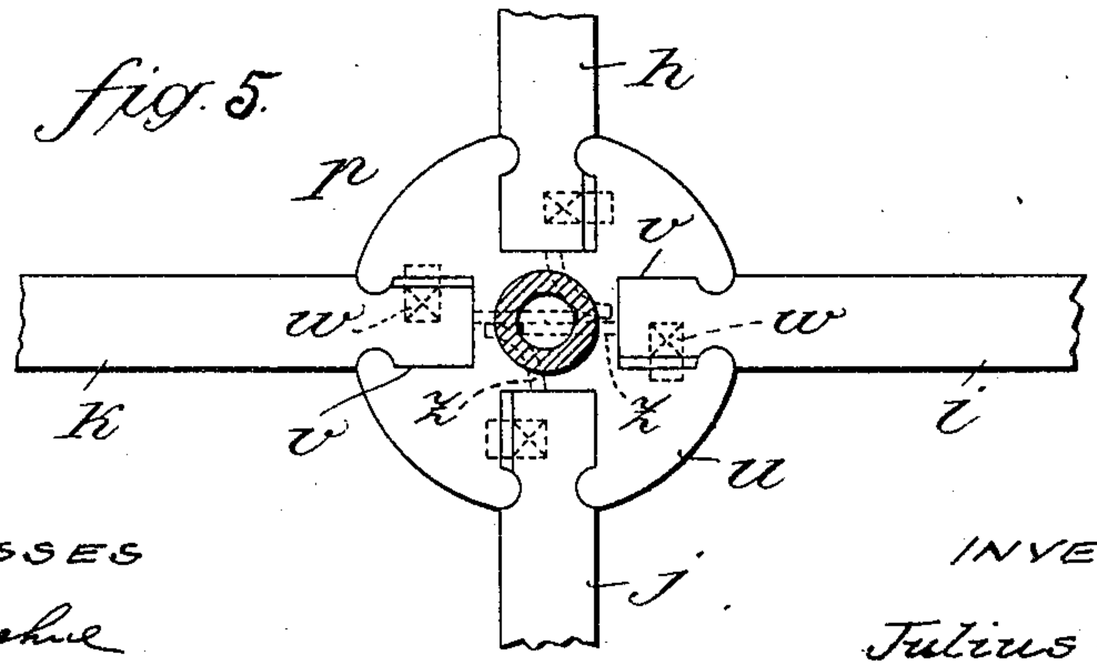


fig. 5.



WITNESSES

H. M. Kuehle

Paul Neuhut.

INVENTOR

Julius Wendler

BY Richards & G

ATTORNEYS

No. 784,459. Patented March 7, 1905.

UNITED STATES PATENT OFFICE.

JULIUS WENDLER, OF BERLIN, GERMANY.

REVOLVING DOOR.

SPECIFICATION forming part of Letters Patent No. 784,459, dated March 7, 1905.

Application filed March 19, 1904. Serial No. 198,921.

To all whom it may concern:

Be it known that I, JULIUS WENDLER, architect, a subject of the King of Prussia, Emperor of Germany, residing at Leipzigerstrasse 117/118, Berlin, Germany, have invented certain new and useful Improvements in Revolving Doors, of which the following is a specification.

My invention relates to a revolving door the wings of which at the side adjacent to the wall of the entrance or door chamber swing on vertical supports carrying a rotary plate, which forms the ceiling of the entrance-chamber, while at the point where they meet in the center of the latter the wings are separably connected together.

The essential feature of the invention is that each wing consists of two separate leaves, one of which can be folded back upon the other. In this manner jamming of the wings on opening them is impossible, so that a free passage is insured, and, furthermore, the revolving door can be readily converted into an ordinary swing-door, which in the warm season is particularly desirable.

My invention is illustrated in the accompanying drawings, which show one form of construction of the apparatus.

Figure 1 is an elevation and part section of a revolving door. Fig. 2 is a sectional plan of the same, the broken lines illustrating the conversion into a swing-door. Fig. 3 is a vertical section illustrating the bottom locking device for the wings. Fig. 4 is a sectional elevation illustrating the top locking device. Fig. 5 is a sectional plan thereof, these two last figures being drawn to a larger scale.

The entrance or door chamber c, formed by the stationary walls a b, is closed above by a rotary ceiling or cover-plate f, carried by a pin d, received by the stirrup x.

q represents four vertical supports connected with the plate f, and to them the wings h i j k are attached by hinges m. Each of the wings h i j k consists of two leaves h' h^2, i' i^2, j' j^2, k' k^2, connected by hinges m'.

The device for centrally locking the wings may be constructed in various ways and may be provided at the top or bottom, or at both the top and bottom, of the door. In the drawings two such devices p p' are shown. The top locking device p consists of a sleeve u, sliding on the spindle t, which forms the prolongation of the pin d. The sleeve u has a flat discoid base slotted at v, so that after the wings have been assembled in the manner of a cross it can be pushed down upon them, the corners of the wings entering the slots v, whereby all four wings are united. The parts can be released by raising the sleeve u into the dotted-line position, Fig. 4.

The bottom locking device p', Fig. 3, consists of a spring-controlled rotary block o, housed in the floor and on depression releasing the four wings. The latter, in the construction shown, are provided at the bottom with lugs or pins r, which in the normal position of the wings engage in corresponding recesses furnished for them in the block o.

In order to elevate the top locking device p and simultaneously depress the bottom locking device p', an ordinary basquill-bolt mechanism is applied to each wing. This mechanism consists of the long bolts w w', sliding in guide-eyes s and connected by a link w^2, provided with a handle y. When the latter is depressed into the dotted-line position, Fig. 1, the link w^2 is turned and the bolt w shot upward and the twin bolt w' shot downward, whereby the two devices p p' are disengaged simultaneously.

If all the four wings h i j k are provided with hinges m', the advantage is secured that mutual jamming of the wings on opening cannot occur, since on being turned on the hinges m they at once partially fold back on themselves, as shown by the dotted lines, Fig. 2. Thus the leaves h' h^2, i' i^2, &c., can always be rapidly swung back on the hinges m, a point of much importance. The handle y of the basquill-bolt device of each wing is normally held in position by a catch y' of any suitable construction provided on each wing h i j k. In this manner also the leaves h' h^2, i' i^2, &c., are secured in the proper radial position.

The employment of the apparatus as a swing-door is illustrated by the broken lines in Fig. 2.

The abutting edges of the wings may be provided with fillets z, Figs. 4 and 5, for the purpose of making a tight joint.

Having thus described my invention, I claim as new—

1. A revolving door, comprising a rotary structure having vertical pendent members adjacent to the walls of the entrance-chamber, wings swinging on the said members and each consisting of two folding leaves, and means at the junction-point of the wings when arranged radially, separably connecting the latter, substantially as described.

2. A revolving door, comprising a rotary structure having vertical pendent members adjacent to the walls of the entrance-chamber and a roof covering the latter, means carrying the said structure and presenting a pendent central pin, wings swinging on the said pendent members and each consisting of two folding leaves, a sleeve having a slotted base sliding in the said pendent pin and engaging with the wings when arranged radially, and means for elevating the said sleeve on its pin to disengage the wings, substantially as described.

3. A revolving door, comprising a rotary structure having vertical pendent members adjacent to the walls of the entrance-chamber and a roof covering the latter, means carrying the said structure, wings swinging on the said pendent members and each consisting of two folding leaves, the inner of which presents projections at the bottom, a spring-actuated rotary member housed in the floor of the entrance-chamber and having recesses to receive the said projections of the leaves when arranged radially, and means for depressing the rotary member to disengage the wings, substantially as described.

4. A revolving door, comprising a rotary structure having pendent members adjacent to the walls of the entrance-chamber and a roof covering the latter, means carrying the said structure and presenting a pendent central pin, wings swinging on the said pendent members and each consisting of two folding leaves, the inner of which presents projections at the bottom, a sleeve having a slotted base sliding on the pendent pin and engaging with the wings when arranged radially, a spring-actuated rotary member housed in the floor of the entrance-chamber and having recesses to receive the said projections of the leaves, and a basquill-bolt device simultaneously lifting the said sleeve on its pin and depressing the spring-actuated member, for the purpose of disengaging the wings, substantially as described.

In witness whereof I have hereunto signed my name, this 1st day of March, 1904, in the presence of two subscribing witnesses.

JULIUS WENDLER.

Witnesses:

WOLDEMAR HAUPT,

HENRY HASPER.