(No Model.)

H. MAUL.

DOOR CHAIN AND UNCOUPLING DEVICE THEREFOR.

No. 400,930. Patented Apr. 9, 1889.

Fig. 1.

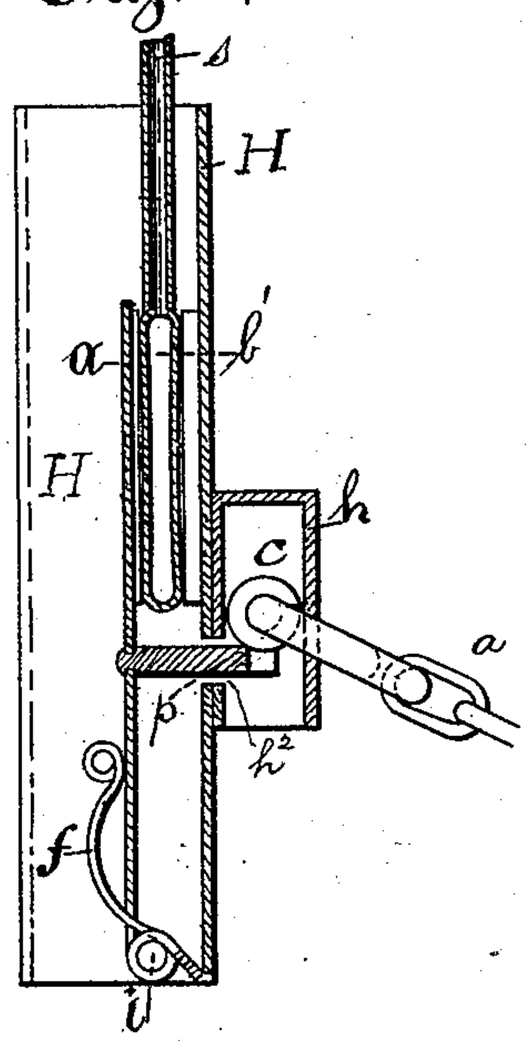

Fig. 2.

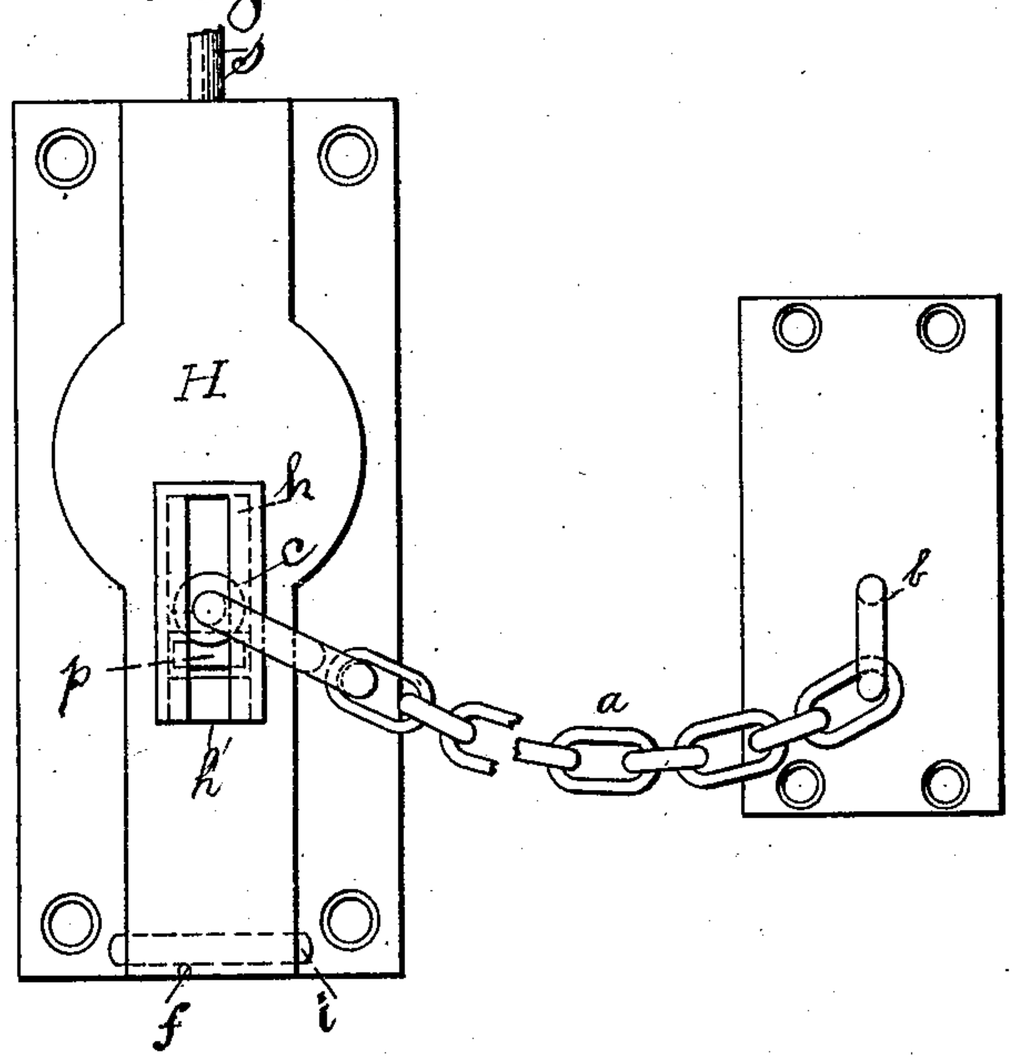

Fig. 3.

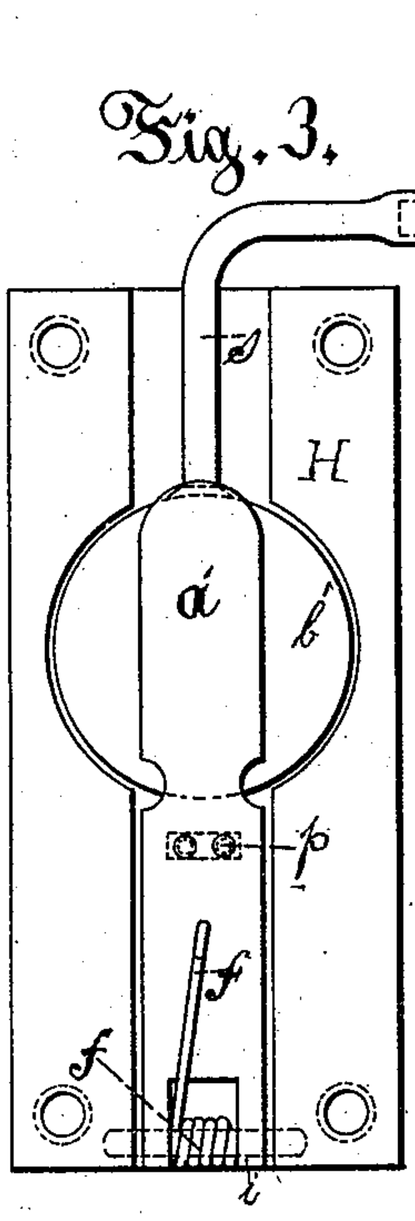

Fig. 4.

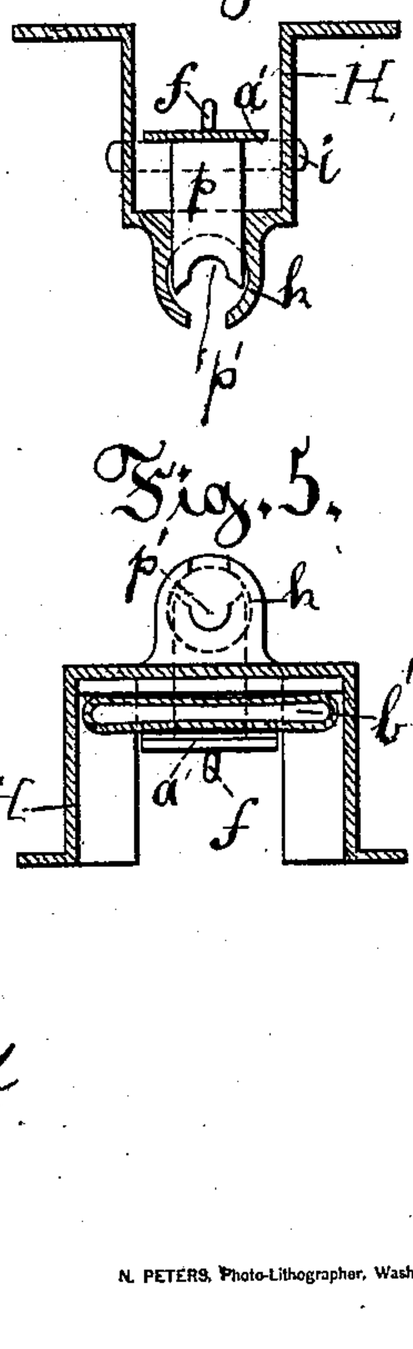

Fig. 5.

Fig. 6.

Witnesses.
Chas A. Mills
Herman Niedfeldt.

Inventor
Hermann Maul
By Wm H Babcock
Attorney

UNITED STATES PATENT OFFICE.

HERMANN MAUL, OF DRESDEN, SAXONY, GERMANY, ASSIGNOR TO MAX ROST, OF SAME PLACE.

DOOR-CHAIN AND UNCOUPLING DEVICE THEREFOR.

SPECIFICATION forming part of Letters Patent No. 400,930, dated April 9, 1889.

Application filed October 8, 1888. Serial No. 287,484. (No model.)

To all whom it may concern:

Be it known that I, HERMANN MAUL, mechanician, of Dresden, Gerberstrasse, No. 16, a citizen of Germany, residing at Dresden, in the Kingdom of Saxony, Germany, have invented certain new and useful Improvements in Door-Chains and Uncoupling Devices Therefor; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The object of this invention is to provide convenient means for unfastening from a distance a door secured by a chain.

To this end the said invention consists, chiefly, in the combination of such a chain and the devices whereby one end of said chain is attached, with pneumatic mechanism arranged to release at will said attaching devices when operated from a distance.

The said invention consists, further, in the combination of a movable bracket and a plate to which it is attached with a door-chain having its knob supported on said bracket, a fixed slotted casing, which holds said knob while the latter is on said bracket, an expansible bag or cushion for moving said plate to withdraw said bracket, and a compressible ball and tube, whereby said bag or cushion is expanded at will.

In the accompanying drawings, Figure 1 represents a vertical section of the devices embodying my invention. Fig. 2 represents a front elevation of the same. Fig. 3 represents a rear elevation of the same. Fig. 4 represents a horizontal section taken just above the knob-supporting bracket. Fig. 5 represents a horizontal section taken through the expansible bag or cushion; and Fig. 6 represents a plan view of a door, door-jamb, fastening-chain, releasing devices, and a bed from the side of which they may be operated.

In said drawings, A designates the door, and B the door-jamb, which are connected by chain *a*, this chain being permanently secured at one end to said door by a staple, *b*, and detachably fastened at the other end to a casing, H, fixed on said jamb. This casing extends outward from said jamb, as shown in Fig. 5, to leave space between them for the actuating devices hereinafter described. Said casing has on its front a supplemental casing, *h*, in the form of a short tube vertically arranged, and having in its face a slot, *h'*, extending from the bottom of said casing *h* upward nearly to the top. The proximate end of the chain *a* is provided with a knob, *c*, which enters said casing *h* from below, the next link of the chain passing up at the same time in slot *h'*. This knob is prevented from falling by a bracket or shelf, *p*, which enters said supplemental casing from behind through a slot, h^2. This shelf or bracket is attached to a plate, *a'*, pivoted at its lower end on a transverse rod, *i*, attached to the casing H. A spring, *f*, bears against the rear of said plate above its pivoted line, and forces bracket or shelf *p* into casing *h* under knob *c*, as stated. In front of the upper part of plate *a'* is an expansible bag or cushion, *b'*, preferably of india-rubber, which is supplied with air at will through tubes *r* and *s*, arranged continuously. The outer tube, *r*, can be carried to the side of a bed, C, Fig. 6, or any other convenient point, where it terminates in an air-forcing device. This may be simply a ball of india-rubber, *g*, compressible by hand. The occupant of the bed grasps and squeezes this ball, causing an immediate expansion of elastic bag or cushion *b'*, and consequent backward motion of plate *a'* and bracket or shelf *p*. The knob *c* then drops out of casing *h*, thus freeing the chain *a* and door A. When the door is to be fastened again, the plate *a'* and the shelf *p* are pressed back, the knob is slipped up into casing *h*, and the bracket of shelf *p* is allowed to return to its position below under the impulsion of spring *f*. The front edge of said shelf or bracket is formed with a semicircular recess, *p'*, to facilitate the introduction of said knob and prevent the contact of the shelf with the chain.

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

1. In combination with a door-chain having a knob on its detachable end, a casing slotted to receive said knob, a movable shelf or bracket for retaining said knob in said cas-

ing, and pneumatic devices arranged to move said shelf from a distance, in order to set free said knob and chain, substantially as set forth.

2. A compressible ball, *g*, tube *r*, and expansible cushion *b'*, in combination with a pivoted plate, *a'*, arranged in proximity to said cushion, a shelf or bracket carried by said plate, a spring bearing against the rear of said plate, a casing, which contains said plate and cushion, and is provided in front with a supplemental vertically-slotted casing entered from the rear by said shelf, and a door-chain provided with a knob which enters said slotted supplemental casing from below and rests therein on said shelf or bracket until released, as set forth.

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

HERMANN MAUL.

Witnesses:

CARL FR. REICHELT,

PAUL DRUCKMÜLLER.