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HINGE.

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1,052,928.

Patented Feb. 11, 1913.

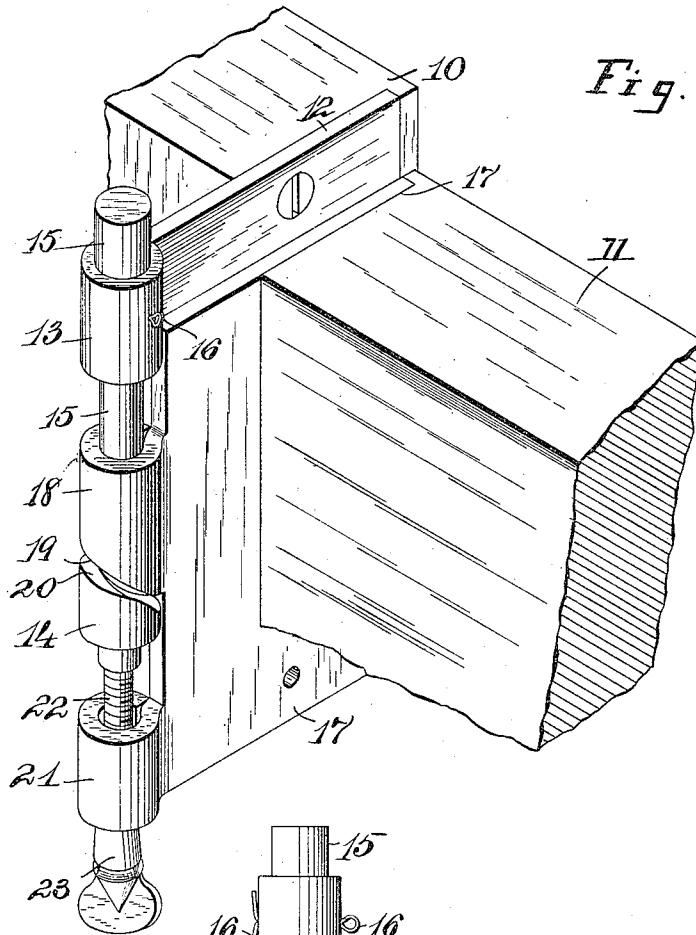


Fig. 1.

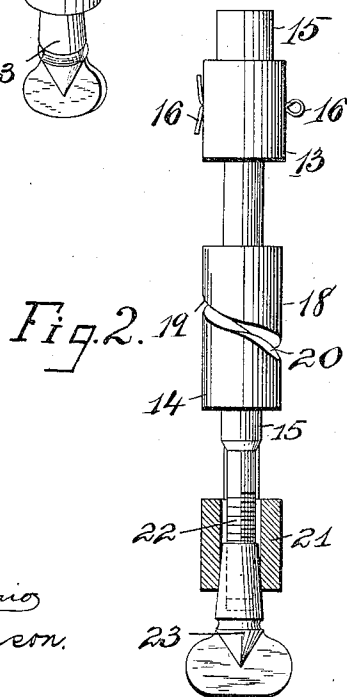


Fig. 2.

WITNESSES
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UNITED STATES PATENT OFFICE.

JOHN LA VERGNE, OF NEWARK, AND GASPARE IZZO AND FERDINANDO MACOLINO, OF JERSEY CITY, NEW JERSEY.

HINGE.

1,052,928.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, JOHN LA VERGNE, residing at Newark, and GASPARE IZZO and FERDINANDO MACOLINO, residing at Jersey City, in the counties of Essex and Hudson, respectively, and State of New Jersey, citizens of the United States, have invented certain new and useful Improvements in Hinges; and we 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, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

This invention relates to an improved hinge which has a vertically disposed pintle, the hinge leaves being provided with knuckles which embrace the pintle, the pintle being supported by the knuckles of one of the leaves, and the knuckles of the leaves having inclined faces so that the hinge leaves will be moved in the direction of the downward tendency of the inclined faces, this being preferably in the direction of the closed position of the leaves whereby the element hung on the leaf is normally swung shut, although it is evident that the opposite disposition of the inclined faces can be made so as to normally swing the element supported by the hinge to an open position.

The invention is further designed to provide a device of this kind in which the contact of the inclined faces can be adjusted. In other words, the inclined faces do not engage until the swinging leaf is partly swung open so that the closing tendency is not operative to a full closing of the leaves, but stops when the hinge leaves rotate enough to bring the inclined faces out of contact.

The invention is illustrated in the accompanying drawing, in which—

Figure 1 is a perspective view of a hinge fastened to a support and also to a supported element, this view showing the adjustable feature. Fig. 2 is a face view of the hinge shown in Fig. 1, with the lower knuckle shown in section.

10 is a suitable support such as a door-casing, and 11 is a supported element, such as a door. To the support 10 is fastened the hinge leaf 12 which in this specification we call the fixed leaf, this leaf having a knuckle 13 and a knuckle 14 through which passes a

pintle 15 which is fastened to one of the knuckles, preferably the knuckle 13, by a pin 16, which pin prevents the movement of the pintle longitudinally and also prevents its rotation. The swinging leaf 17 which is fastened to the element 11 has a knuckle 18 resting on the knuckle 14 of the fixed leaf. The opposed faces 19 and 20 of the leaves 18 and 14 respectively, cause the swinging leaf to rise when it is swung to its open position, and cause the swinging leaf to close by its own weight when it is released on account of the inclined faces co-acting to force the descent and consequently the closing of the swinging leaf.

The bottom eye 21 of the swinging leaf fits around a screw-threaded extension 22 of the pintle 15, and a nut 23 screws on the screw-threaded extension, and when it is screwed up it causes the swinging leaf to be raised, that is, its weight is placed on the nut 23. When the swinging leaf is raised the inclined faces do not engage unless the swinging leaf is swung from its normal position for a slight distance, in fact, if the nut is screwed up far enough, the inclined faces can be held against any engagement and the inclined faces would not act. If the nut is screwed up enough to raise the swinging leaf so that the inclined faces will not engage until the hinge is half way open, the door or other element supported on the swinging leaf will not be swung more than half way shut, and in this way we regulate the swinging of the door.

Having thus described our invention, what we claim is:—

1. A hinge comprising a fixed leaf having knuckles thereon, a pintle secured in the knuckles, a swinging leaf with knuckles embracing the pintle, the pintle being vertically disposed, the knuckles of the movable leaf resting on the knuckles of the fixed leaf, the supporting surfaces of the knuckles being inclined to normally force the leaves to close, and means for raising the movable leaf so that the inclined faces of the knuckles do not abut.

2. A hinge comprising a fixed leaf having knuckles thereon, a pintle secured in the knuckles, a swinging leaf with a knuckle embracing the pintle, the pintle being vertically disposed, the knuckle of the movable leaf resting on a knuckle of the fixed leaf, the supporting surfaces of the knuckles be-

ing inclined to normally force the leaves to close, and adjustable means for moving the movable leaf so that the inclined faces of the knuckles can be moved from each other various distances.

3. A hinge comprising a fixed leaf having a pair of knuckles thereon, a pintle vertically disposed in the knuckles, the pintle being secured in the knuckles against longitudinal movement in a downward direction, the lower eye of the fixed leaf having an inclined upper face, a swinging leaf with a knuckle thereon, the eye of the swinging leaf having an inclined face to act on the

inclined face of the eye of the fixed leaf, a screw-threaded extension on the pintle, and a nut on the extension, said nut acting when rotated on the screw to bear on the eye of the swinging leaf to raise the swinging leaf.

In testimony that we claim the foregoing, we have hereunto set our hands this 13th day of January 1912.

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Witnesses:

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