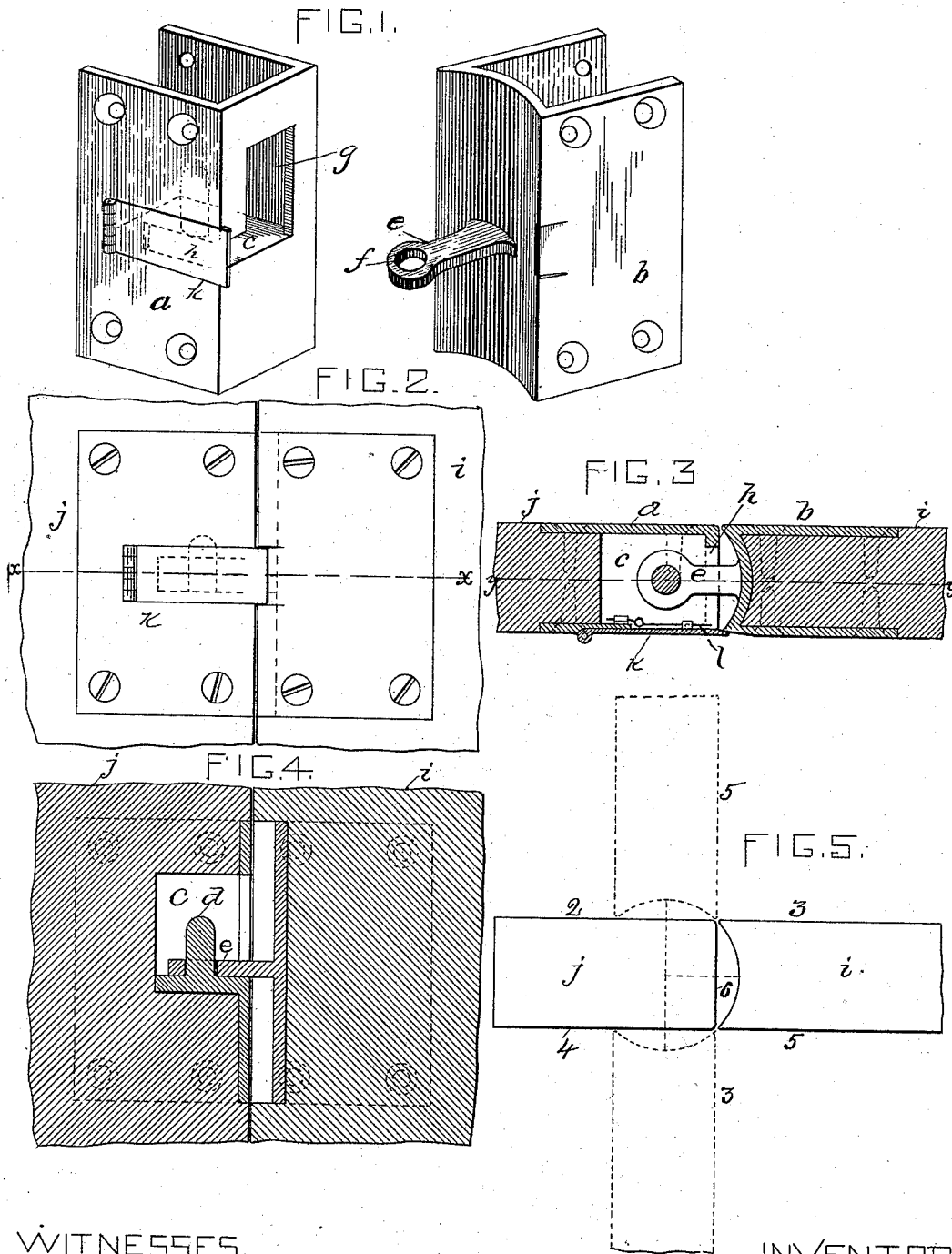


(No Model.)

L. J. HARRIS.
HINGE.

No. 418,021.

Patented Dec. 24, 1889.



WITNESSES.

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LOUIE J. HARRIS, OF BOSTON, MASSACHUSETTS.

HINGE.

SPECIFICATION forming part of Letters Patent No. 418,021, dated December 24, 1889.

Application filed August 13, 1888. Serial No. 282,519. (No model.)

To all whom it may concern:

Be it known that I, LOUIE J. HARRIS, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Hinges, of which the following is a specification.

My invention has as its object the provision of a hinge whereby of the parts united by a hinge-connection or hinge-joint the part that is capable of movement to and adjustment in different planes may have its surface (particularly the upper or outer surface) adjacent to the fixed part flush with the surface of such adjacent fixed part. In other words, it is the purpose of my invention to provide a simply-constructed hinge or hinge-joint of such character that when the two connected parts are adjusted so as to extend in the same plane or in planes at right angles to each other their face surfaces will be flush with each other.

To this end my invention consists of the construction and arrangement of parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a perspective view of my improved hinge, the two parts being shown as separated. Fig. 2 is a side view of the same, showing a portion of a door and its casing or the like to which the hinge may be applied, the parts being represented as operatively connected. Fig. 3 is a sectional view taken on the line *xx* of Fig. 2. Fig. 4 is a sectional view taken on the line *yy* of Fig. 3. Fig. 5 is a diagram showing the operation of my improvements.

The same letters and figures of reference designate the same parts in all of the views.

In the drawings, *a* designates the part of the hinge that is designed to be secured to the fixed support, and *b* is the part constructed and arranged to be secured to the movable or adjustable part. The part *a* is provided with a recess or housing *c*, in which is arranged a pintle or pin *d*. The pintle *d* may form an integral part of the part *a*, or it may be made separate therefrom and secured in position in the housing *c*. The part *b* is provided with a shank *e*, having an eye *f*, so that said shank may be inserted in the housing of part *a*, with the pintle *d* extending through the eye of the shank *e*, as shown in Figs. 3 and 4. The face

of the part *b* adjacent to the part *a*, and to which the shank *e* is attached, is concaved, as shown, the form or radius of the concavity being struck with the center of the eye *f* of the shank and of the pintle *d* as the center of the concaved arch, as is illustrated by the diagram shown by Fig. 5.

Any convenient means may be provided for permitting the insertion of the shank *e* in the housing *c*, so that the pintle may be passed through the eye of the shank, that here shown consisting of a recess *g*, formed in the part *a* above the slot *h*, which slot is made for the free operation of the shank *e* when the door or other adjustable thing *i* is swung from the full-line position to the dotted-line positions, Fig. 5.

Supposing *i* to represent a door or leaf of a table hinged to a fixed support *j* by my improved hinge, it will be seen that when said part *i* is adjusted so as to extend in the same plane with the fixed part *j* the surfaces of 2 3 and 4 5 of said parts will be flush with each other, and when the part *i* is raised to vertical position the surface 5 will be flush with the surface 6, and when said part *i* is lowered to vertical position the surface 3 will be flush with the surface 6, this result being very desirable in many instances where hinges are used. The slot *h* may be covered, if desired, by arranging a lid *k* thereover, hinging it to the part *a*, so that its free end will slightly overlap the part *b*, and providing a spring *l* for holding the free end of said lid in contact with the part *a*. As the part *b* is moved outward it will move the lid outward with it, and as it is moved backward the lid will be moved by the spring *l* with it.

It is obvious that changes may be made in the form and arrangements of parts and features constituting my invention without departing from the nature or spirit thereof. For example, it is obvious that the part here described as movable may be made as the fixed part, and the described fixed part made movable, &c.

Having thus described my invention, what I claim is—

1. A hinge consisting of a fixed part, slotted as described and provided with a pintle or pin, and a movable part having its side or

face which is adjacent to the fixed part concaved, and also having a shank extending from a point midway between the ends of the concave arc and radially with the same, said
5 shank having a hole with its center conforming with the center of the concave arc, and said hole engaging with the pintle or pin of the fixed part, all as set forth.

2. A hinge consisting of a fixed part and a
10 movable part, the movable part having its face or side which is adjacent to the fixed part concaved and the corresponding face of the fixed part plain, and a pivotal support for

said movable part at a point equidistant between the ends of the concaved arch, and
15 with the pivotal point on the fixed part corresponding with the center of the arch of the movable part, all as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two sub-
20 scribing witnesses, this 10th day of August, A. D. 1888.

LOUIE J. HARRIS.

Witnesses:

ARTHUR W. CROSSLEY,
W. C. RAMSAY.