J. A. STUART.

GRAVITY HINGE.

APPLICATION FILED AUG. 30, 1909.

945,820. Patented Jan. 11, 1910.

Fig. 1.

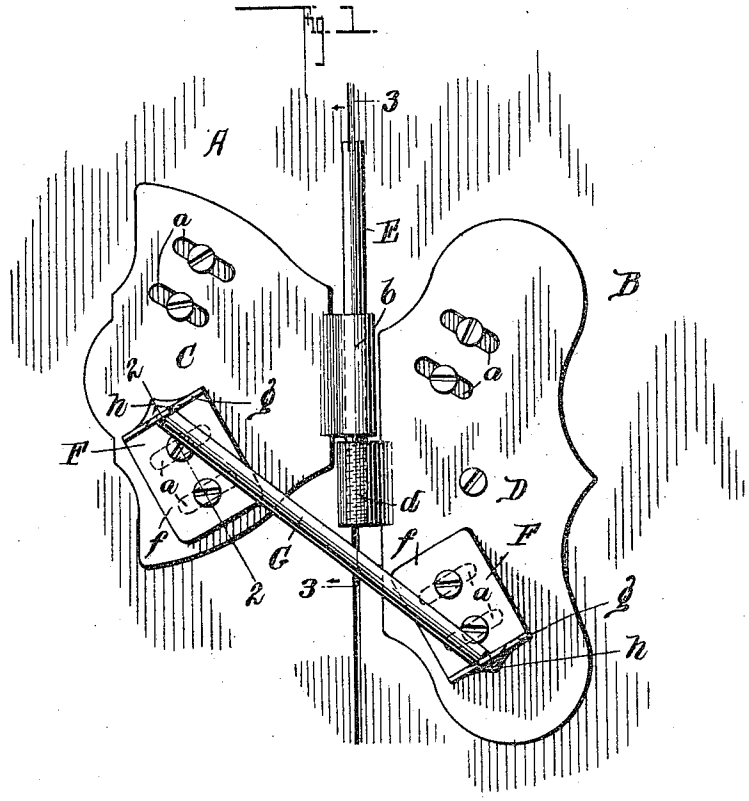


Fig. 2.

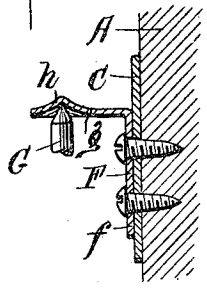
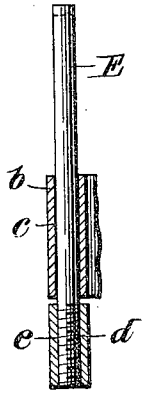


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

JAMES A. STUART, OF HIGHLAND, CALIFORNIA.

GRAVITY-HINGE.

945,820. Specification of Letters Patent. Patented Jan. 11, 1910.

Application filed August 30, 1909. Serial No. 515,214.

To all whom it may concern:

Be it known that I, JAMES A. STUART, a citizen of the United States, residing at Highland, in the county of San Bernardino and State of California, have invented new and useful Improvements in Gravity-Hinges, of which the following is a specification.

My invention relates to gravity hinges, of the type comprising leaf-members and a lifting-rod interposed between bracket-bearings on said members; and it consists in the peculiar and advantageous gravity hinge hereinafter described and definitely claimed.

In the drawings, accompanying and forming part of this specification: Figure 1 is a front elevation showing as applied a gravity hinge constructed in accordance with my invention. Fig. 2 is a detail section taken in the plane indicated by the line 2—2 of Fig. 1, and illustrating the manner in which the bracket-bearings are adjustably connected with the leaf members. Fig. 3 is a detail section taken on the line 3—3 of Fig. 1 and showing the detachable connection of the hinge pin to one of the leaf members.

Similar letters designate corresponding parts in all of the views of the drawings, referring to which:

A is a part of a door.

B is a part of a door casing, and C and D are the leaf-members of my novel hinge. Each leaf member has a pair of inclined slots or oblong apertures near one of its ends, and a pair of oppositely inclined slots or oblong apertures near its opposite end, as shown; the upper pairs of slots shown in Fig. 1 being designed to be utilized in lieu of the lower pairs when the hinge is reversed. It will also be observed that the leaf member C is provided with a knuckle *b* in which is a smooth bore *c*, and the member D is provided with a knuckle *d*, having a threaded bore *e*. This latter is for the detachable connection of the threaded end of the hinge pin E, and consequently it will be observed that when the hinge is to be reversed, as stated, the threaded portion of the pin E may be screwed out of one end of the threaded bore *e* and into the other end thereof.

In addition to the leaf-members C and D and the pin E, my novel hinge comprises bracket-bearings F, one on each leaf-member, and a lifting-rod G. The said bracket bearings respectively comprise a body portion *f* and an angular arm *g* in which is a seat *h* to receive one end of the lifting rod G in such manner as to permit said rod to freely swing and otherwise accommodate itself to the movements of the leaf member C on the pin E.

Screws extending through the slots or oblong apertures *a*, as shown, are employed to fixedly connect the leaf members C and D to the door and the door casing respectively, and certain of the said screws are utilized to attach the bracket bearings F to the leaf-members. From this it follows that the said bracket bearings may be fixed at various points on the faces of the leaf-members, and the lifting rod may be disposed at various angles of inclination according to the force with which it is desired to have the door gravitate to a closed position subsequent to the opening of the door and the lifting of the door attending the opening thereof.

In addition to the practical advantages hereinbefore ascribed to my novel hinge, it will be noted that the hinge is simple and compact and may be expeditiously and easily applied without the employment of skilled labor.

Having described my invention, what I claim and desire to secure by Letters-Patent, is:

The herein described gravity hinge consisting essentially of leaf members having knuckles one of which is provided with a threaded bore, and the other with a smooth bore; each of the said leaf members also having a pair of inclined slots near one end and a pair of oppositely inclined slots near its opposite end, a pin extending through the smooth bore of one knuckle and having a threaded end portion removably secured in the threaded bore of the other knuckle, bracket bearings, each having apertures registered with two of the inclined slots of its respective leaf member for the passage of attaching devices and also having an angular arm in the inner side of which is a seat, and a lifting rod interposed between the arms of the two bracket bearings and disposed at its ends in the seats thereof.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JAMES A. STUART.

Witnesses:

W. J. NORWOOD,

W. E. PARKER.