

No. 837,298.

PATENTED DEC. 4, 1906.

J. E. GLOEKLER.

LATCH.

APPLICATION FILED AUG. 8, 1906.

Fig. 1.

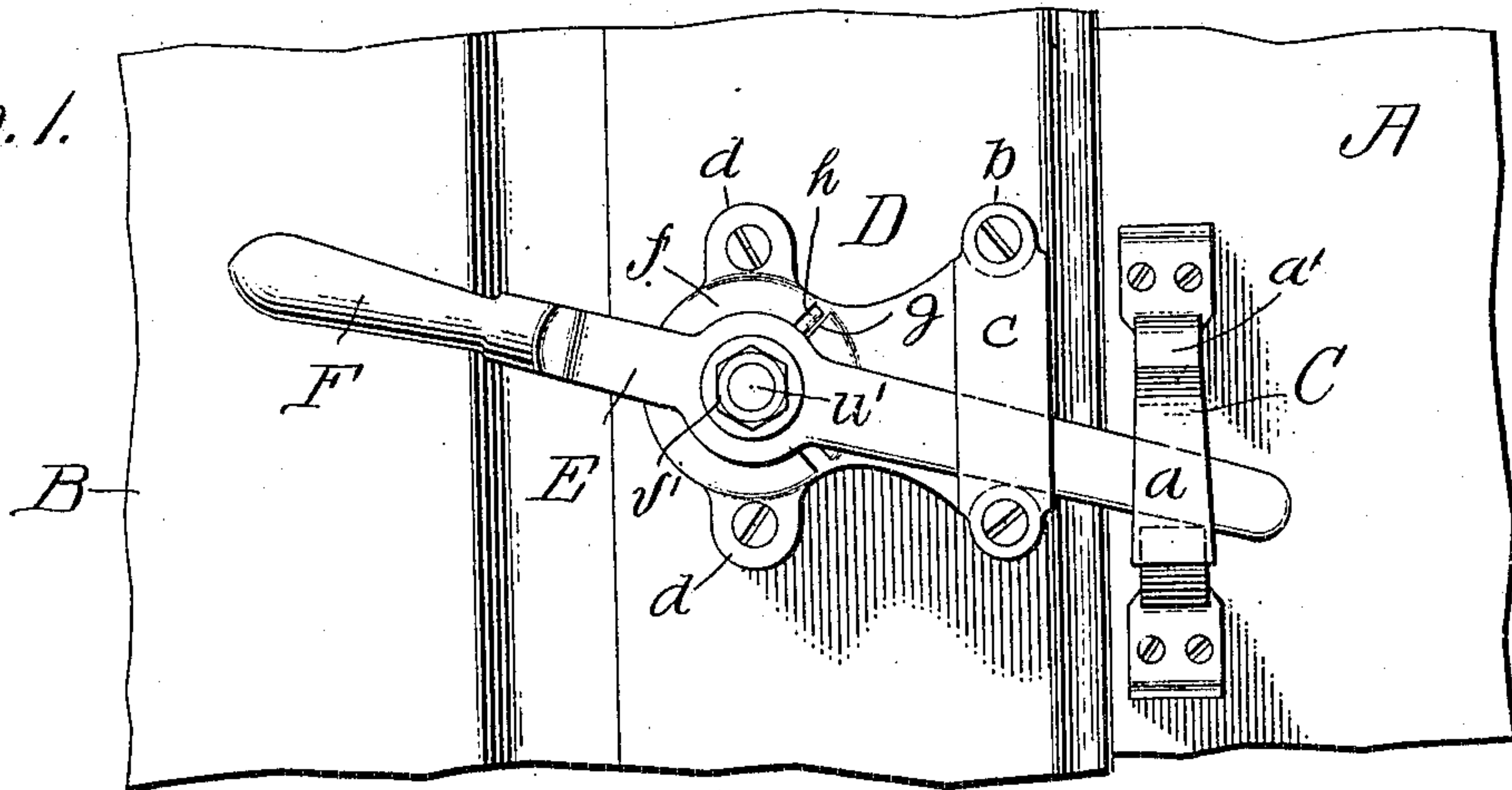


Fig. 2.

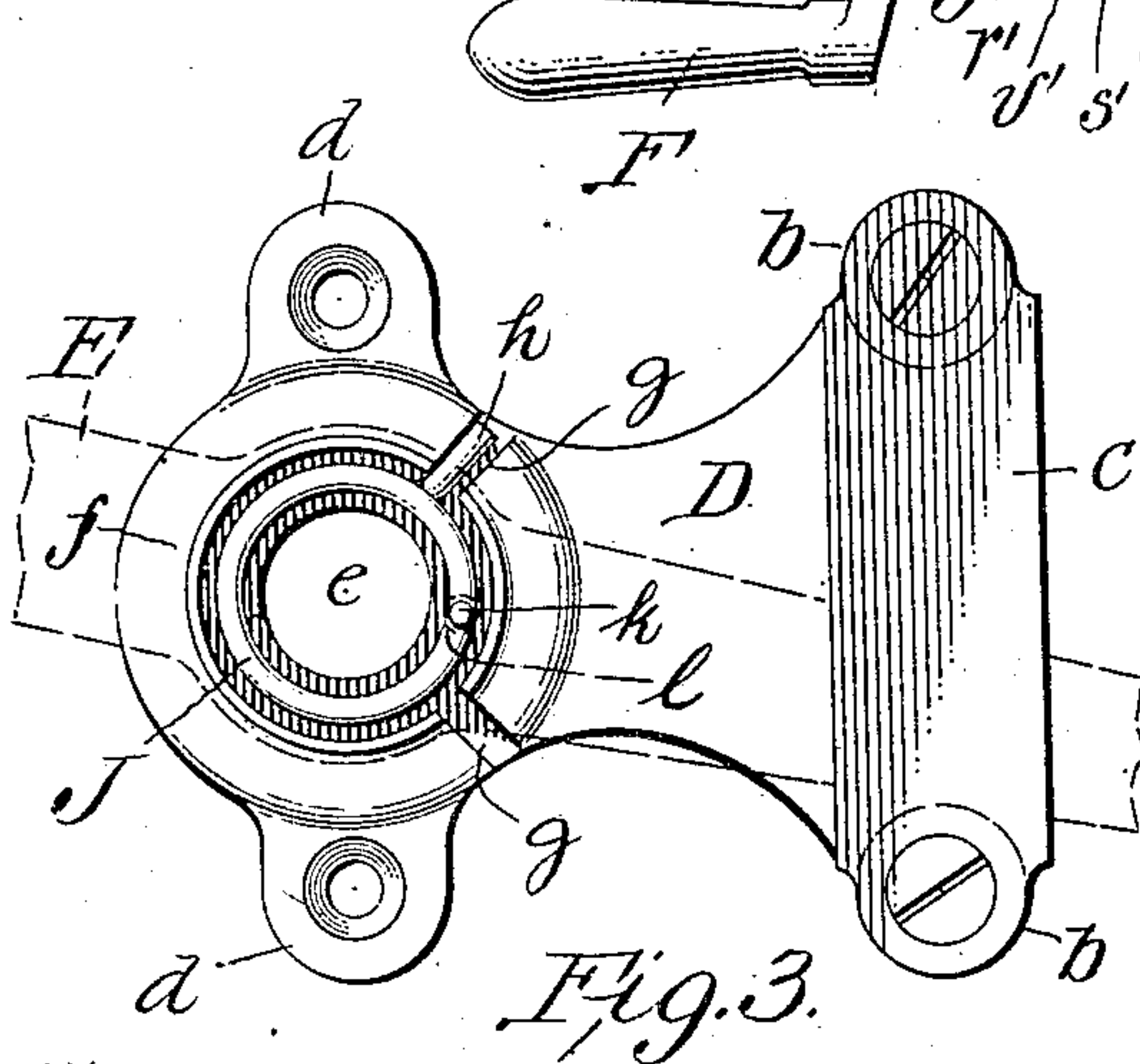
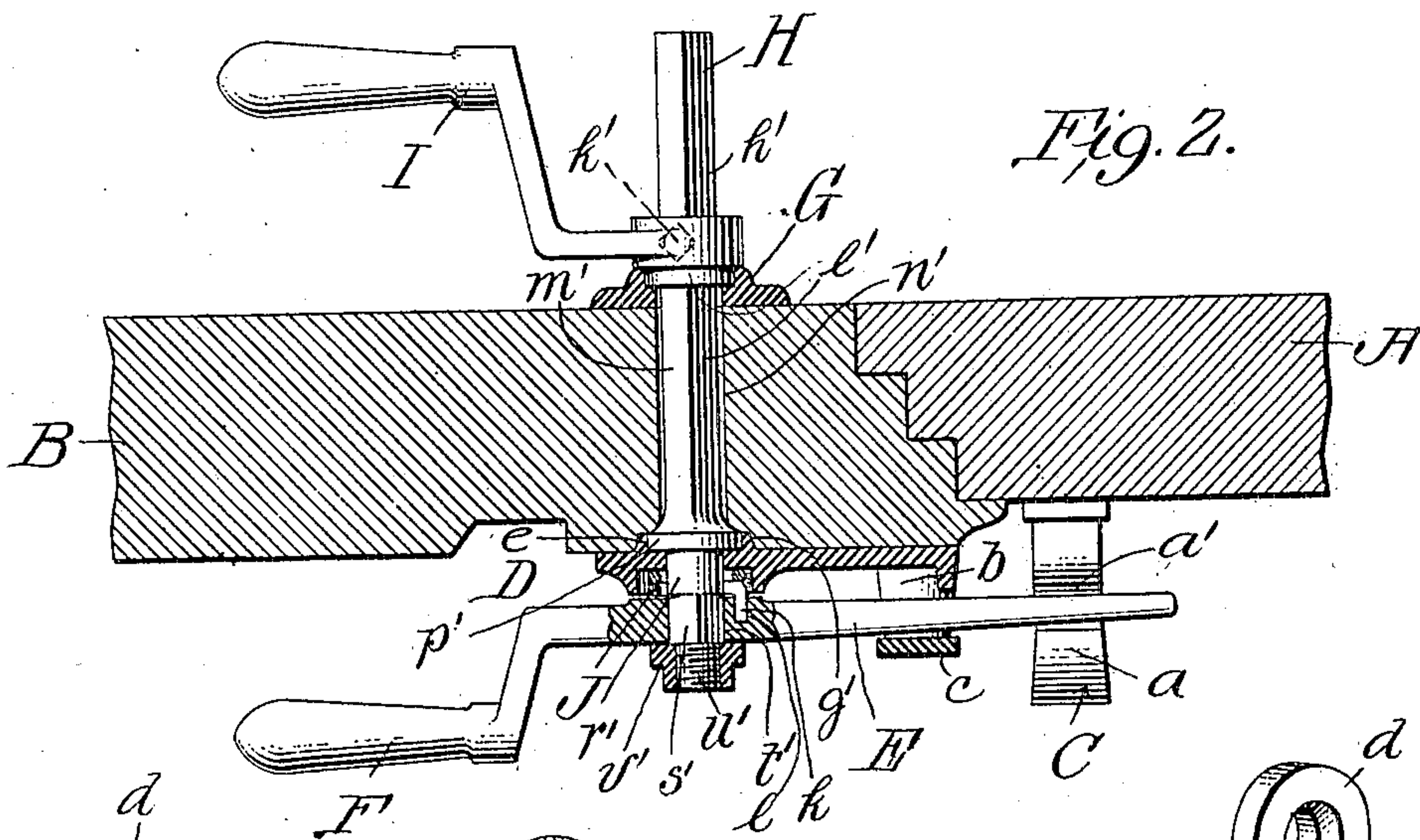


Fig. 3.

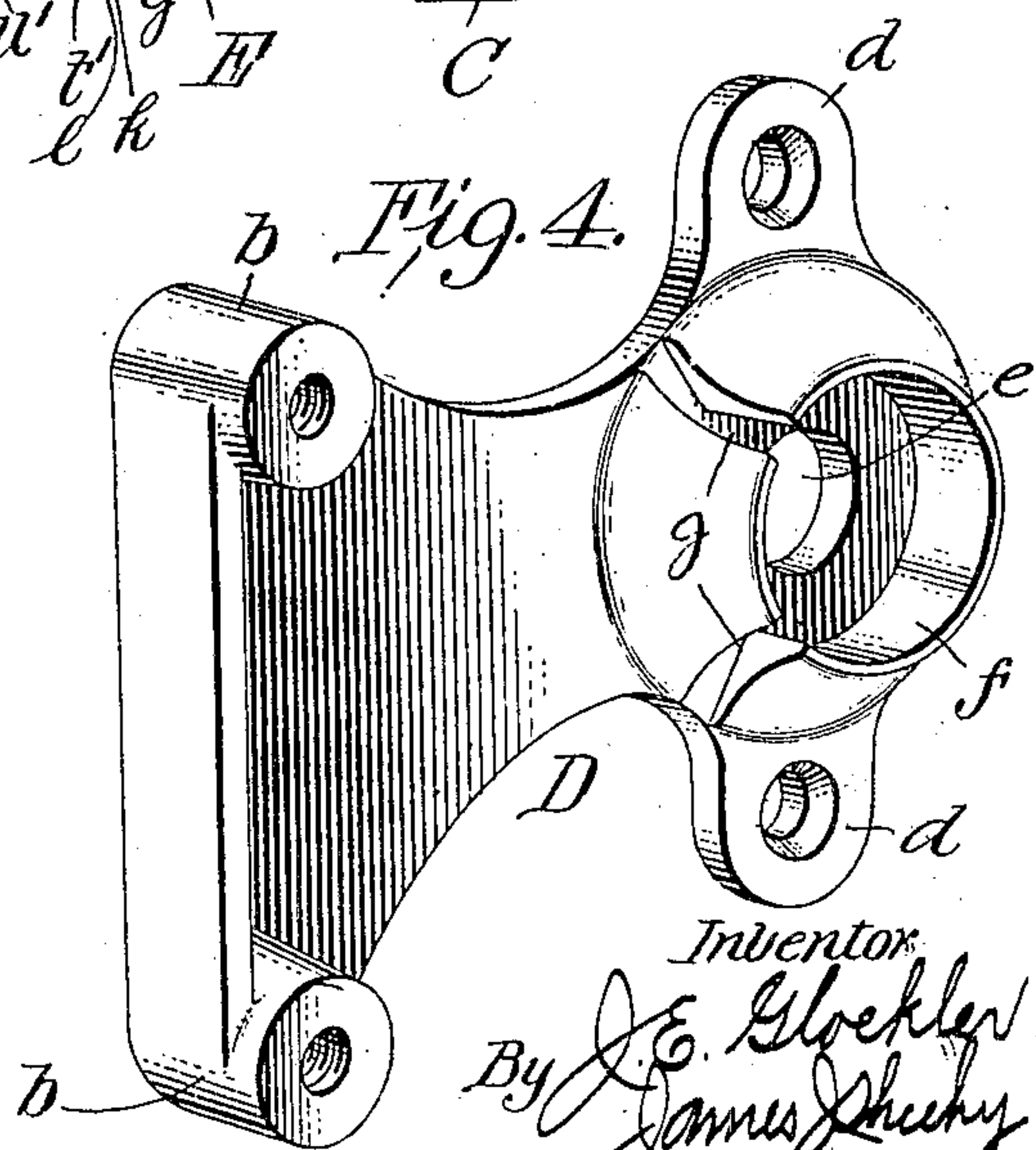


Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

JOHN EDWARD GLOEKLER, OF PITTSBURG, PENNSYLVANIA.

LATCH.

No. 837,298.

Specification of Letters Patent.

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Application filed August 8, 1906. Serial No. 329,677.

To all whom it may concern:

Be it known that I, JOHN EDWARD GLOEKLER, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented new and useful Improvements in Latches, of which the following is a specification.

My invention pertains to latches, more particularly spring-pressed latches designed to fasten the swinging doors of refrigerators, and it contemplates the provision of a simple, compact, and efficient spring-pressed latch constructed with a view of withstanding the shocks and rough usage to which such devices are ordinarily subjected and one so arranged that it may be operated by a person inside of a refrigerator or refrigerating apartment with the same facility as by a person outside of the same.

The invention will be fully appreciated from the following description and claims when the same are read in connection with the accompanying drawings, forming part of this specification, in which—

Figure 1 is a front elevation illustrating my novel latch as fastening a refrigerator-door. Fig. 2 is a view of the latch, partly in transverse section and partly in plan. Fig. 3 is an enlarged front view showing the spring in its housing, the latch-lever and the hand-lever, integral therewith, being indicated by dotted lines. Fig. 4 is an enlarged perspective view of the body-casting comprised in the latch construction.

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

A is the front wall of a refrigerator.

B is the swinging door of the refrigerator.

C is the keeper member of my novel latch, which is fixed to the face of the wall A and is provided with the usual forward inclined portion *a* and the usual seat or notch *a'* back of said portion *a*.

D is the body-casting of the latch construction, which is fixed to the face of the door B.

E is the lever member or latch-lever of the latch.

F is a hand-lever formed integral with or otherwise fixed to the lever member or latch-lever E.

G is a bearing-plate attached to the inner side of the door B.

H is a shaft extending transversely through the bearing-plate G, the door B, and the

body-casting D in the order named. I is a hand-lever arranged on the inner portion of said shaft, and J is the spring through the medium of which the lever member or latch-lever E, the hand-lever F, the shaft H, and the hand-lever I are normally held in and returned to the positions illustrated in Figs. 1 and 2.

As best shown in Fig. 4, the body-casting D is provided at its end adjacent to the keeper member C with interiorly-threaded projections *b*. These projections are for the connection of a strap *c*, between which and the face of the body-casting the lever member or latch-lever E is designed to move. At its end remote from the keeper member C the body-casting D is provided with apertured lugs *d* to receive fastening-screws and is also provided with a transverse circular aperture *e* and a spring-housing *f*, the latter surrounding the aperture *e* and being provided in its wall with two (more or less) notches *g* for a purpose which will presently appear. On its inner side the said body-casting D is equipped with a circular flange *g'*, which surrounds and is arranged concentric to the aperture *e*, as illustrated in Fig. 2. The shaft H is provided with an inner portion *h'* of angular form in cross-section, on which the hand-lever I is fixed by a set-screw *k'* or other suitable means, said hand-lever being provided with a circular portion *l'*, journaled in the bearing-plate G; a portion *m'*, which extends loosely through a transverse opening *n'* in the door B; a circular portion *p'*, disposed within the flange *g'* of the body-casting D; a circular portion *r'*, extending through the opening *e* in said body-casting; a portion *s'* of angular form in cross-section arranged in a corresponding opening *t'* of the lever member or latch-lever E, and a reduced and threaded outer end *u'*, the latter to receive a nut *v'*, the office of which is to retain the lever or latch member on the portion *s'* of the shaft. The spring J is nested in the housing *f* of the body-casting D around the shaft H, and one of its ends *h* is seated in one notch *g* of the housing. The other end *k* of said spring J is seated in a socket *l* in the inner side of the lever E, as best shown in Fig. 2.

It will be apparent from the foregoing that when the lever member or latch-lever E is swung from the position shown, as when its forward portion rides up the inclined portion *a* of the keeper member C, the spring J will

be placed under tension, and hence will operate when the lever member or latch-lever reaches the seat *a'* to force said lever member down into and hold it in the seat, so as to preclude casual opening of the door. It will also be apparent that when the lever is disengaged from the keeper member, as when the door B is open, the spring J will retain the lever member in the position shown ready for the same to strike and ride up the inclined portion *a* of the keeper member C when the door is closed.

By reference to Fig. 2 it will be understood that the lever member E, the hand-lever F, the shaft H, and the inner hand-lever I will move as one piece, and from this it follows that in the event of the door B being inadvertently latched while a person is within the refrigerator or refrigerating apartment such person is enabled through the medium of the hand-lever I to unfasten and open the door with the same facility as a person located outside of the refrigerator or refrigerating apartment.

By reference to Fig. 2 it will be noted that the housing *f* and the lever member E inclose the spring J and protect the same against injury, which feature obviously contributes materially to the strength and durability of the latch as a whole.

While I have shown the keeper member of the latch on the wall of the refrigerator and the lever member and its appurtenances on the refrigerator-door, it is obvious that the members of the latch may be variously arranged without involving departure from the scope of my invention.

The construction herein shown and described constitutes the present and preferred embodiment of my invention; but it is obvious that in practice such changes or modifications may be made as fairly fall within the scope of my invention as claimed.

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

1. The combination in a latch, of a body-

casting having interiorly-threaded lateral projections on its outer side at one end and also having a housing on its outer side at its opposite end; the wall of said housing being notched, a strap arranged on and connected by screws to the projections on the body-casting, a lever member mounted to close the housing and having a socket in its inner side and also having its forward portion disposed and movable between the strap and the body-casting, and a spring nested in the housing and having one end arranged in the notch thereof and its other end seated in the socket in the lever member.

2. The combination in a latch, of a body-casting having a circular opening and also having a housing on its outer side surrounding said opening and provided in its wall with a notch, a bearing-plate, a shaft disposed transversely, relative to the body-casting and the bearing-plate, and having a circular portion journaled in said body-casting and an abutment arranged to bear against the inner side of the body-casting and also having an outer portion, of angular form in cross-section, and a reduced and threaded outer end, a hand-lever fixed on the inner portion of said shaft, and journaled in the bearing-plate, a lever member arranged to close the housing on the body-casting and having a handle or hand-lever and also having an angular aperture receiving the angular portion of the shaft, and further having a socket in its inner side, a nut mounted on the threaded end of the shaft, and a coiled spring nested in the housing and around the shaft and having one of its ends arranged in the notch of the housing and its other end seated in the socket in the lever member.

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

JOHN EDWARD GLOEKLER.

Witnesses:

JOHN M. JOYCE,
JOHN HOGAN.