

R. W. HUBBARD.
HINGE.
APPLICATION FILED JAN. 11, 1911.

1,001,405.

Patented Aug. 22, 1911.

Fig. 1.

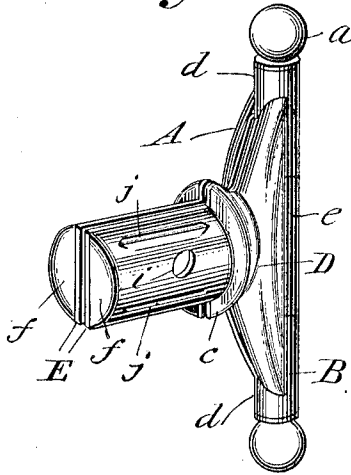


Fig. 2.

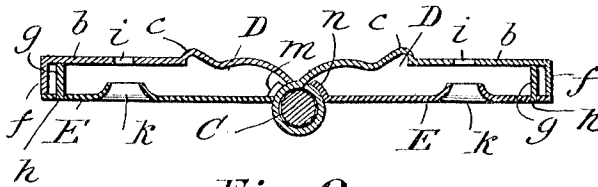
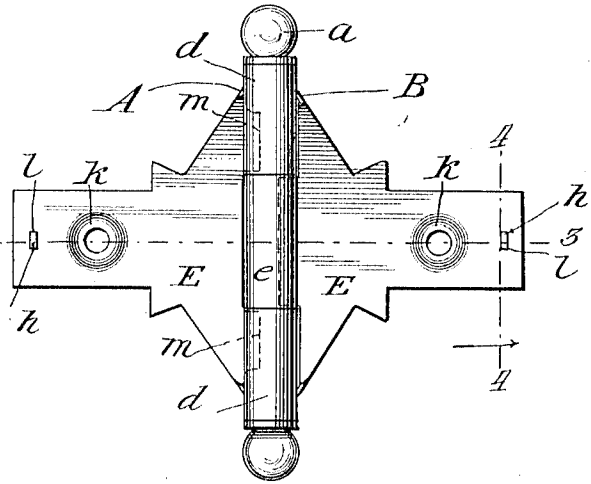


Fig. 3.

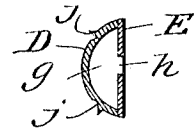


Fig. 4.

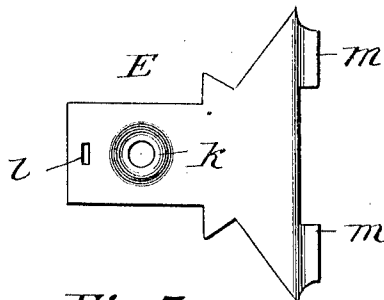


Fig. 5.

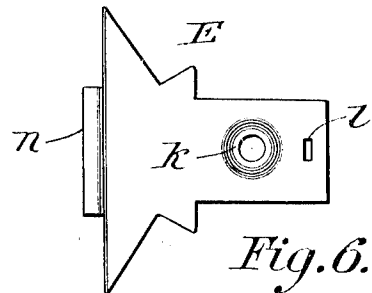


Fig. 6.

Inventor

Witnesses

Phil E. Barnes
W. C. Pealy

By

R. W. Hubbard
James Phubert Co.
Attorneys

UNITED STATES PATENT OFFICE.

RICHARD W. HUBBARD, OF ASHTABULA, OHIO.

HINGE.

1,001,405.

Specification of Letters Patent. Patented Aug. 22, 1911.

Application filed January 11, 1911. Serial No. 602,051.

To all whom it may concern:

Be it known that I, RICHARD W. HUBBARD, a citizen of the United States, residing at Ashtabula, in the county of Ashtabula and State of Ohio, have invented new and useful Improvements in Hinges, of which the following is a specification.

My present invention has to do with hinges, and more particularly hinges of the kind disclosed in my Patents 725,712, dated April 21, 1903, and 759,890, dated May 17, 1904.

The object of the present invention is the provision of a hinge, each member of which comprises a hollow section, and a plate for closing the hollow section; the said hollow section and closure plate being so constructed and relatively arranged that the cost of production is lessened and a strong and durable hinge member is assured.

The invention will be best understood by reference to the following description of one specific embodiment thereof, while its scope will be more particularly pointed out in the appended claims.

In the accompanying drawings: Figure 1 is a perspective view showing my novel hinge as closed. Fig. 2 is an elevation showing the hinge as open. Fig. 3 is a longitudinal section taken through the hinge in the plane of the line 3—3 of Fig. 2. Fig. 4 is a section taken in the plane indicated by the line 4—4 of Fig. 2, looking in the direction of the arrow. Figs. 5 and 6 are views of the closure plates of the members.

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

A and B are the members of the novel hinge, and C is a pintle through the medium of which the said members are pivotally connected together, the said pintle having a head *a* at its upper end. Each of the members A and B comprises an outer section D and a closure plate E. The sections D are similar in that they have outer end portions *b*, of concavo-convex form in cross-section, and shoulders *c* at the inner ends of said portions *b*, but they differ in that the section D of the member A has two knuckles *d*, separated by an intervening space, while the section D of the member B has only one knuckle *e*, said knuckle *e* being arranged between the knuckles *d* to receive the connecting pintle C. It will also be noticed that the major portion or leaf of each section D

is hollow, and that each section D is closed at its outer end by a wall *f* disposed at a right angle to its concavo-convex portion *b*, and that adjacent the said wall *f* each section D is provided with a fixed transverse partition wall *g* on the edge of which is a protuberance *h*, Figs. 2, 3 and 4, for an important purpose hereinafter set forth. I would further have it understood that I provide the end portion *b* of each section D with a screw-hole *i*, and that I form at the convex side of each end portion *b* two longitudinal fins *j*, which are best shown in Figs. 1 and 4.

The closure plates E are shaped to conform to the outline of the inner surfaces of the hollow portions comprised in the sections D, and each plate is provided with a countersunk bolt-hole *k* and an aperture *l*, the latter to receive one of the protuberances *h*. It will also be noted that the plate E of the member A is provided at its inner end with curvilinear flanges *m* to fit under the knuckles *d* of the section D belonging to said member A, and the plate E of member B is provided at its inner end with a single curvilinear flange *n* to fit under the knuckles *e* of the section D comprised in said member B.

By reason of the described construction of the sections D and plates E, it will be manifest that when the plates E are laid against the flat inner surfaces of the concavo-convex portions of the sections D, with the flanged inner ends of the plates engaging the knuckles of sections D, and the apertures *l* of the plates receiving the protuberances *h* of sections D, the plates may be securely fixed to the sections by simply upsetting or otherwise enlarging the ends of the protuberances *h* or otherwise fastening the plates thereto. In this connection attention is particularly invited to the fact that the plates E are adapted to be expeditiously and easily placed against the flat surfaces of the sections D, with their flanges engaging the knuckles and their apertures *l* receiving the protuberances *h*, and that the facility with which such relative arrangement can be effected contributes materially in lessening the cost of production of the hinge as a whole.

My novel hinge is applied in the same manner as the hinges of my aforesaid Letters Patent, and, therefore, the manner of application need not be described herein.

While I have shown and described one form of my invention, it is to be understood that I am not limited to the details or the form or relative arrangement of parts disclosed, but that modifications may be made therein without departing from the spirit thereof.

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

1. As a new article of manufacture, a hinge member comprising a section having a knuckle at its inner end and also having a concavo-convex leaf the inner surface of which is flat and further having an end wall closing the outer end of said concavo-convex leaf and a partition wall fixed in said leaf and provided on its edge with a protuberance, and a closure plate opposed to

the said flat inner surface of the section and having a flange at its inner end fitted under the knuckle of the section and also having an aperture receiving and fastened to the protuberance on the partition wall of the section.

2. As a new article of manufacture, a hinge member comprising a section having a knuckle and also having a concavo-convex leaf, and a closure plate having its side opposed to and fastened against the inner surface of the said concavo-convex leaf.

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

RICHARD W. HUBBARD.

Witnesses:

F. E. HENRY,
L. K. HENRY.

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