

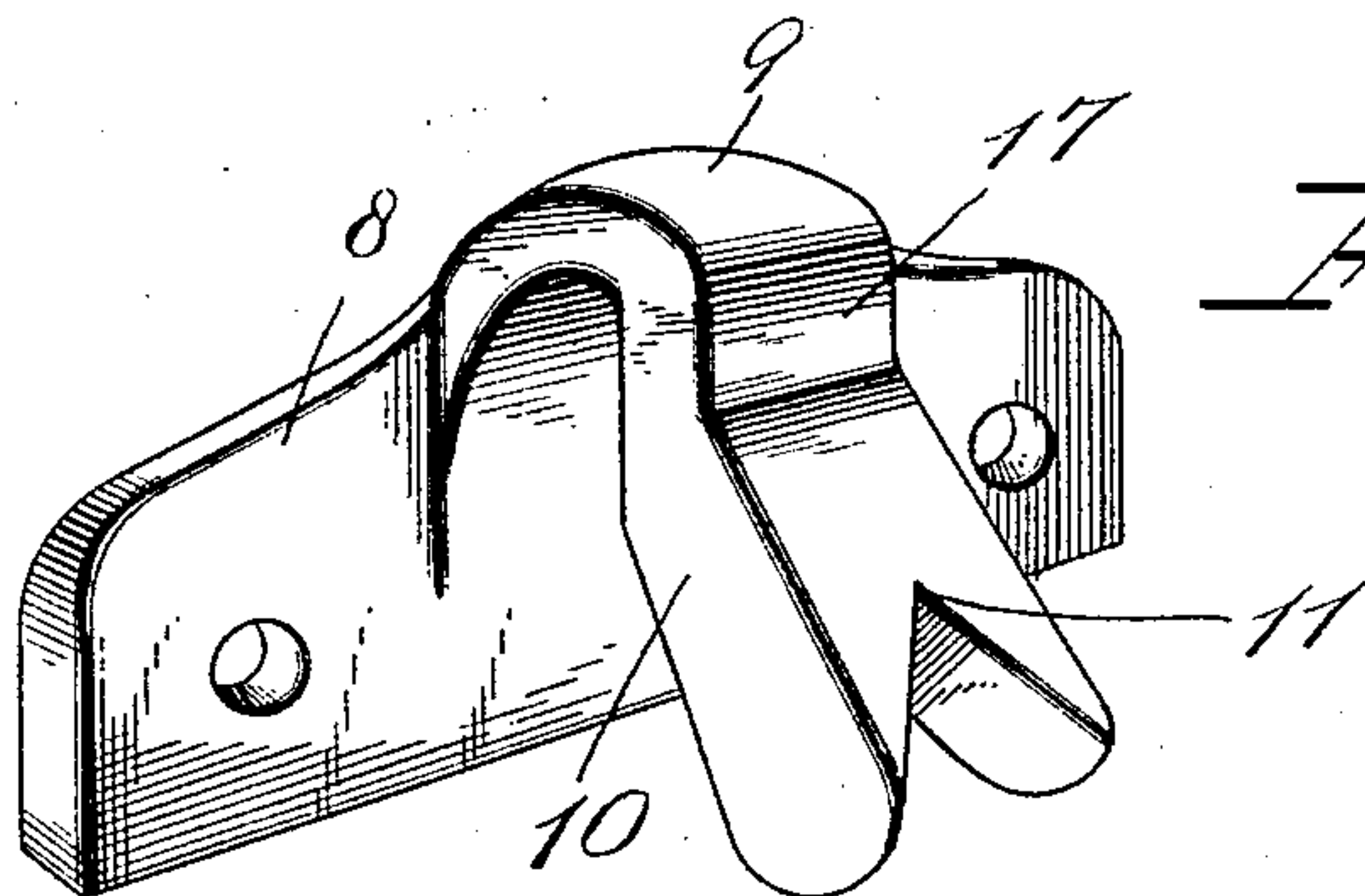
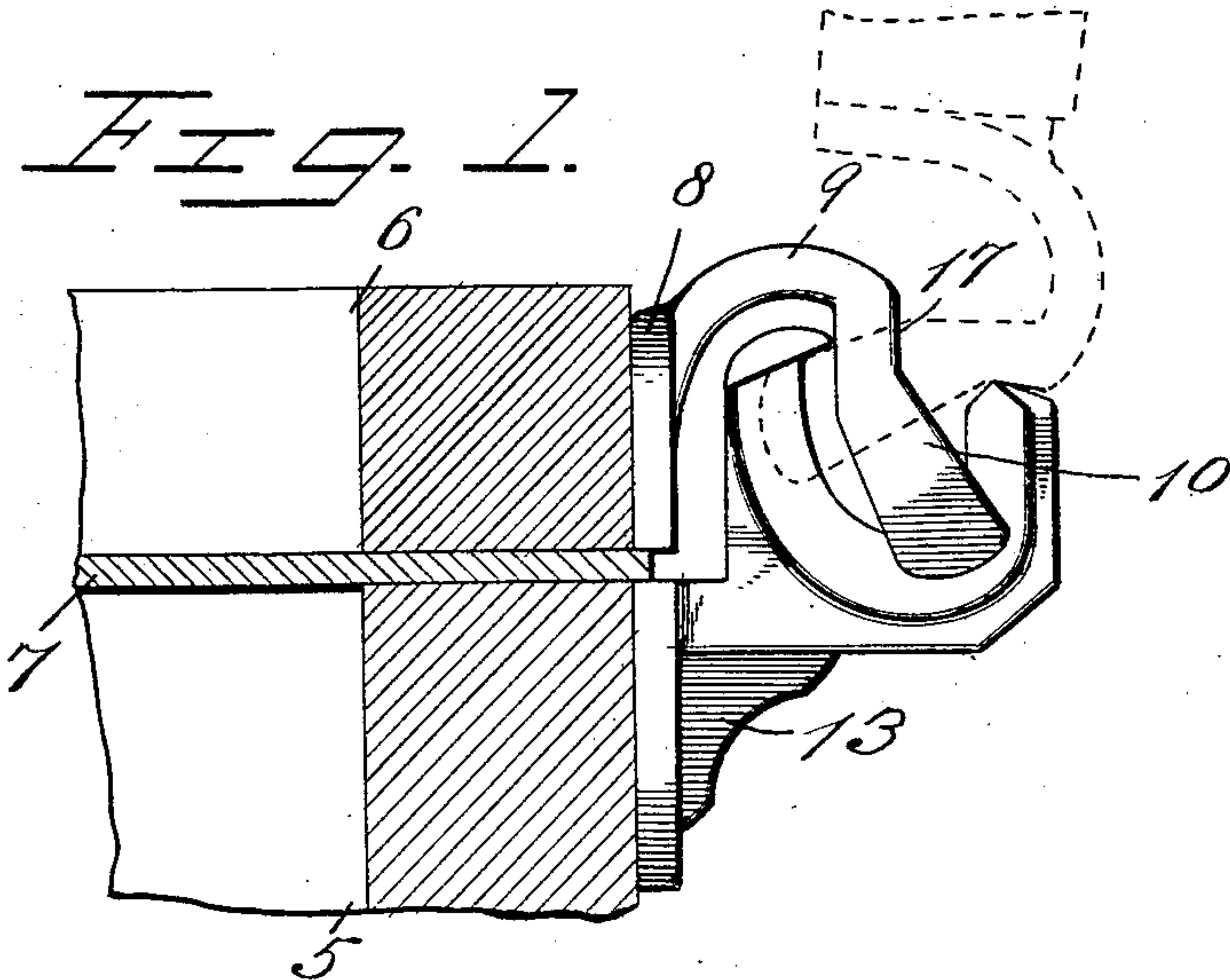
G. W. HUMPHRIES & J. B. RAMSEY.

FLASK HINGE.

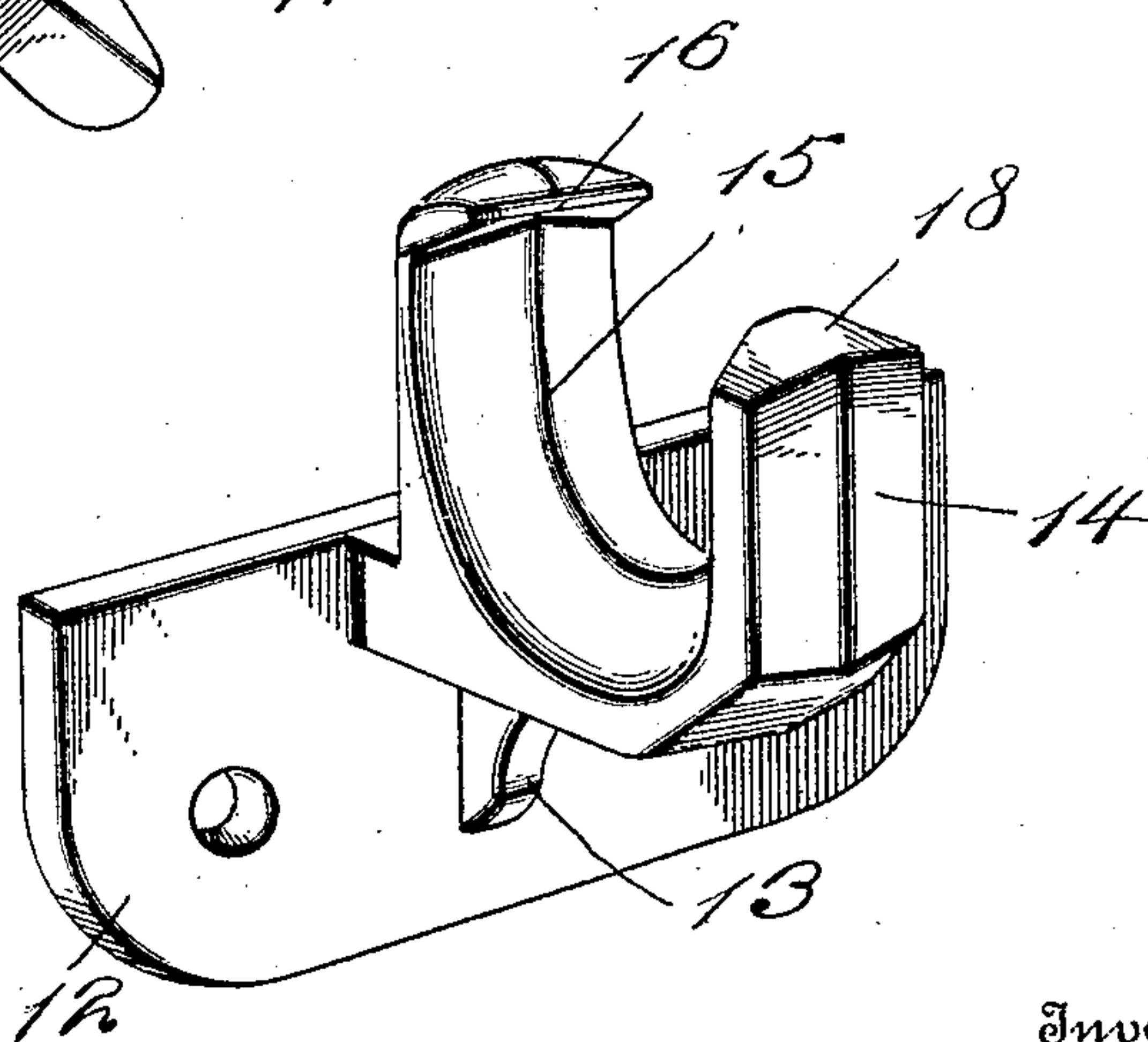
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*Fig. 3.*



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# UNITED STATES PATENT OFFICE.

GEORGE W. HUMPHRIES AND JAMES B. RAMSEY, OF CLEVELAND, TENNESSEE.

## FLASK-HINGE.

999,110.

Specification of Letters Patent.

Patented July 25, 1911.

Application filed May 13, 1911. Serial No. 626,946.

*To all whom it may concern:*

Be it known that we, GEORGE W. HUMPHRIES and JAMES B. RAMSEY, citizens of the United States of America, and residents of Cleveland, in the county of Bradley and State of Tennessee, have invented certain new and useful Improvements in Flask-Hinges, of which the following is a specification.

10 This invention relates to metal founders' flasks and particularly to a flask having a novel hinge which permits movement of the cope with relation to the drag and serves to support the cope in elevated position to permit the removal of a match plate or pattern.

15 An object of this invention is to provide a novel form of hinge, the sections of which will remain in operative position with relation to each other, notwithstanding the cope and drag may be separated by the interposition of a match plate, means being also provided for limiting the movement of one hinge section with relation to the other hinge section and means being further provided for supporting the hinge sections in their open positions.

20 A still further object of this invention is to provide a hinge for flasks in which the friction between the working parts of the hinge is minimized and in providing a hinge which may be readily adjusted to a flask whether or not the said flask has angle irons; or angle irons attached to hinge.

25 A further object of this invention is to provide hinges which will hold the sections of a flask against movement laterally and insures the proper positioning of the cope with relation to the drag whether the said drag is being raised from the cope or being replaced thereon.

30 With the foregoing and other objects in view, the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

35 In describing the invention in detail, reference will be had to the accompanying drawings forming part of this specification wherein like characters denote corresponding parts in the several views, and in which—

40 Figure 1 illustrates a sectional view of a flask with the hinge applied thereto; Fig. 2 illustrates a detail perspective view of that section of the hinge attached to the cope;

Fig. 3 illustrates a perspective view of that portion of the hinge applied to the drag.

45 In the drawings 5 denotes a fragment of a drag, 6 a fragment of a cope applied thereto, and 7 a match plate interposed between the drag and cope. The cope 6 has a hinge plate 8 formed with an integral arm 9 terminating in a goose neck 10, the said goose neck being downwardly extending and being provided with an outwardly flared recess 11 in its end, the wall of said recess forming a camming surface adapted to engage a companion hinge section.

50 12 denotes a hinge plate attached to a drag, 13 a bracket integral therewith and 14 a hinge member adapted to coact with the goose neck 10 of the opposite hinge member. The member 14 forms a bearing which is semicircular and the bearing surface thereof is formed by a rib 15 tapered toward the upper edge, thus forming an inverted V-shaped bearing for the end of the goose neck. The hinge member 14 is provided with a shoulder 16 which is adapted to be contacted by the goose neck when the cope is swung to an approximately vertical position so that the said goose neck, which has a shoulder 17 resting on the shoulder 18 formed on the end of the member 14 is supported when the cope is in its elevated or open position.

55 It will be seen from an inspection of the drawing that as the shoulder 17 rests on the shoulder 18 and the goose neck 10 has its movement limited by the shoulder 16 the cope is held in its elevated position and against movement laterally of the hinge members owing to the fact that the flared recess in the goose neck has fitted in it the inverted V-shaped rib of the member 14. Owing to the depth of the recess 11 in the goose neck and the width of the rib on the member 14, it is obvious that the cope and drag may be separated to a greater or less distance by the interposition of the match plate therebetween, without disturbing the relation of the goose neck and the hinge member. By reason of the arrangement just stated, therefore, the elevation of the cope will result in forcing the goose neck into engagement with the rib 15 and the goose neck will ride on said rib while the hinged members are being moved with relation to one another and as stated heretofore, provision is made for arresting the movable



member of the hinge when it has been moved a predetermined degree.

As set out in the objects of the invention, the hinge is intended to facilitate the operation of molding and said hinge accommodates itself to match plates of different widths which may be used in connection with the cope and drag of a flask.

While we have illustrated the preferred construction of the invention herein, it follows that the proportions thereof and the details of construction may be varied within the scope of the appended claims.

We claim:

1. In a hinge for the cope and drag of a flask, a hinge member having a V-shaped rib approximately U-shaped in elevation and terminating at its inner end in a shoulder secured to one member of the flask, a hinge member secured to the opposite member of the flask comprising a plate having an arm and a goose neck and a shoulder at the junction of the arm and goose neck, the said goose neck having a recess in its end to receive the rib of the opposite hinge member, the said shoulder of the second mentioned hinge member coacting with the end of the first mentioned hinge member, and the goose

neck of said second mentioned hinge member coacting with the shoulder of the first mentioned hinge member for supporting one member of the flask with relation to the other.

2. In a hinge for flasks, a hinge member having a U-shaped bearing surface, one end of which forms a shoulder, the said bearing surface being tapered to its upper edge and having a shoulder, a second hinge member coacting with the first mentioned hinge member having a shoulder to engage the end of the first mentioned hinge member and having a goose neck with a recessed end to receive the rib of the first mentioned hinge member, the said goose neck being adapted to engage a shoulder of the first mentioned hinge member when the shoulder of the second mentioned hinge member engages the end of the first mentioned hinge member.

In testimony whereof, we hereunto affix our signatures in the presence of two witnesses.

GEORGE W. HUMPHRIES.  
JAMES B. RAMSEY.

Witnesses:

J. R. McDARIS,  
D. C. SHUGART.

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