

H. DESMOLIÈRES.
POURING DEVICE.
APPLICATION FILED OCT. 15, 1909.

975,937.

Patented Nov. 15, 1910.

2 SHEETS—SHEET 1.

Fig. 1.

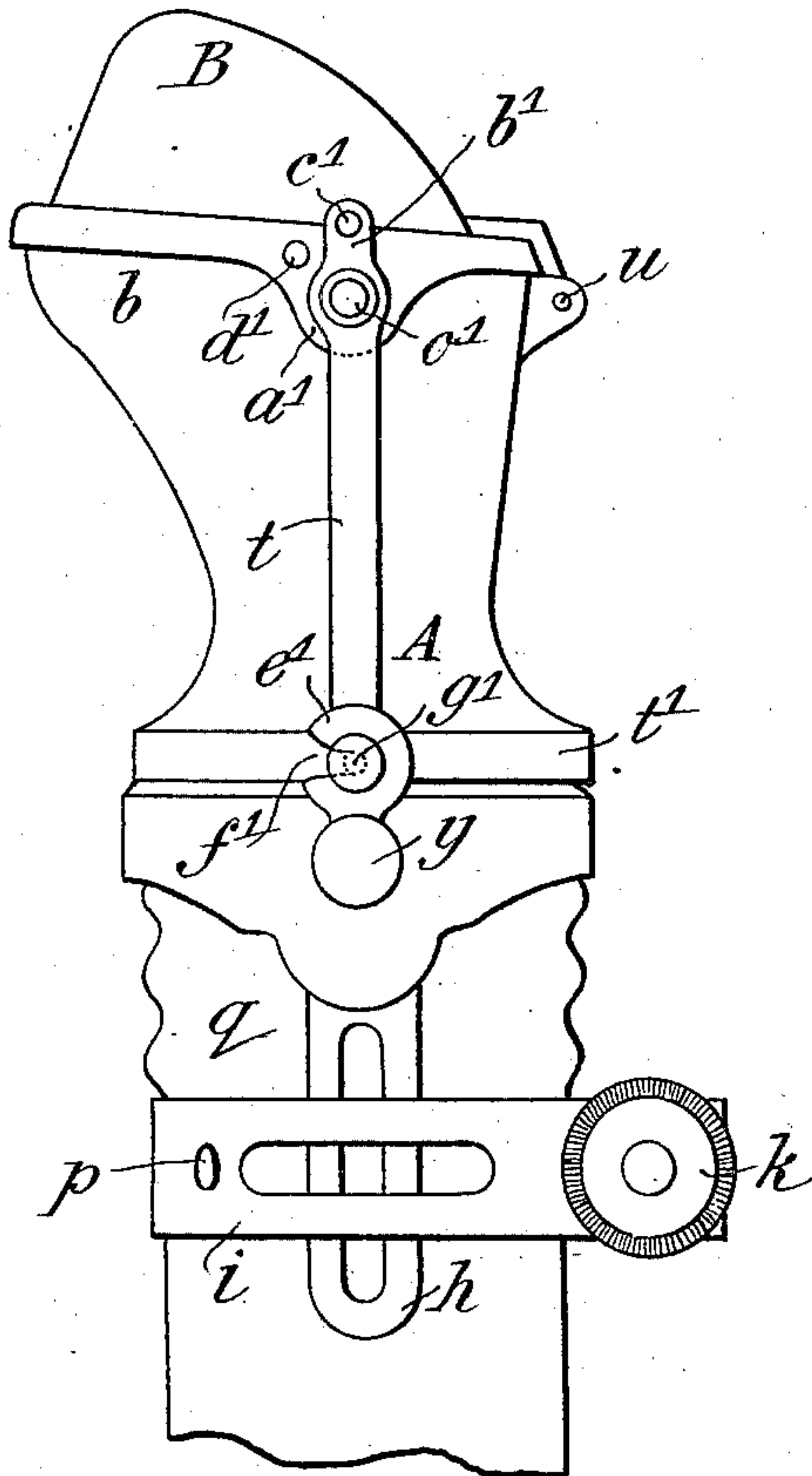


Fig. 2.

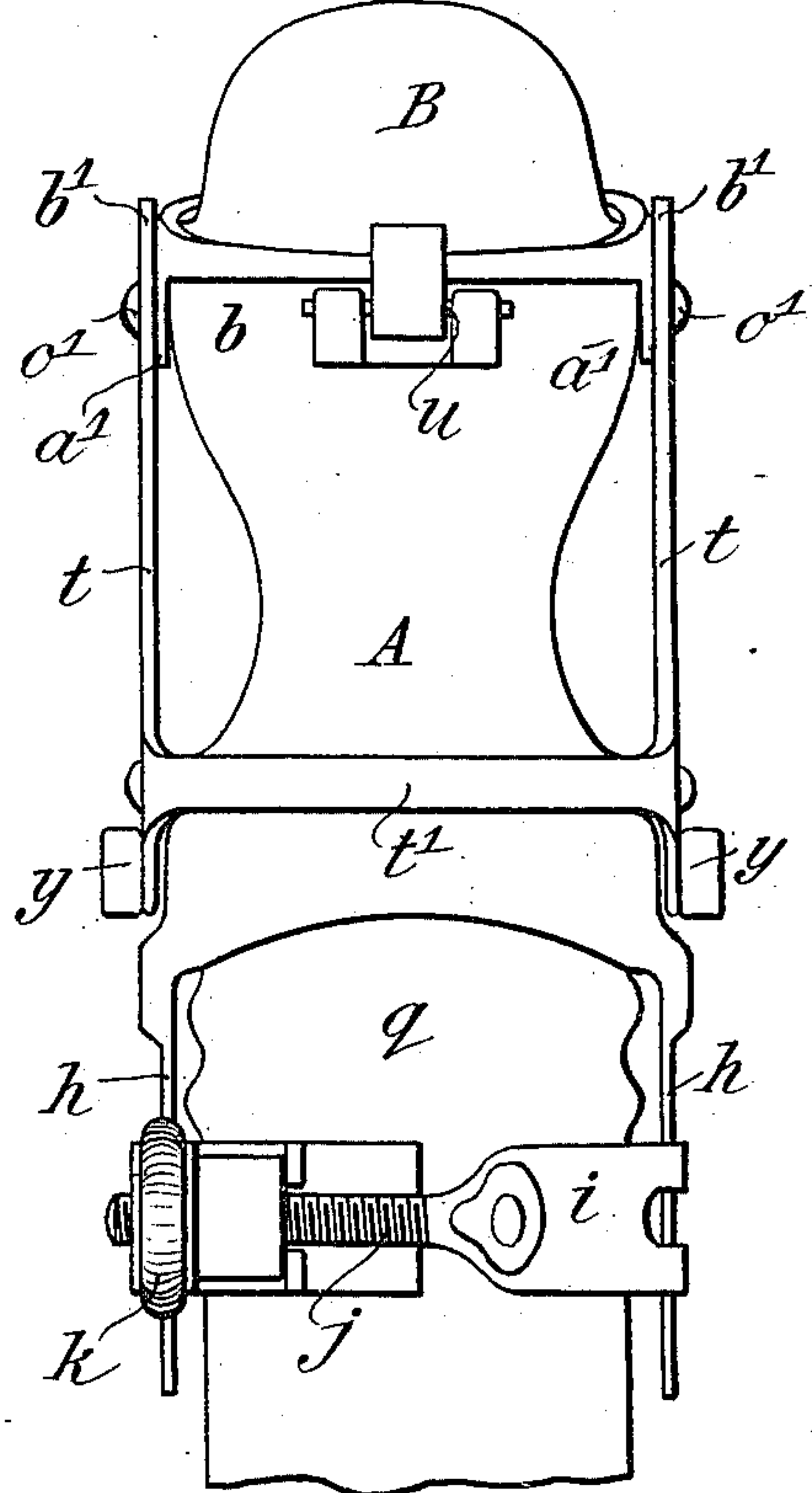


Fig. 4.

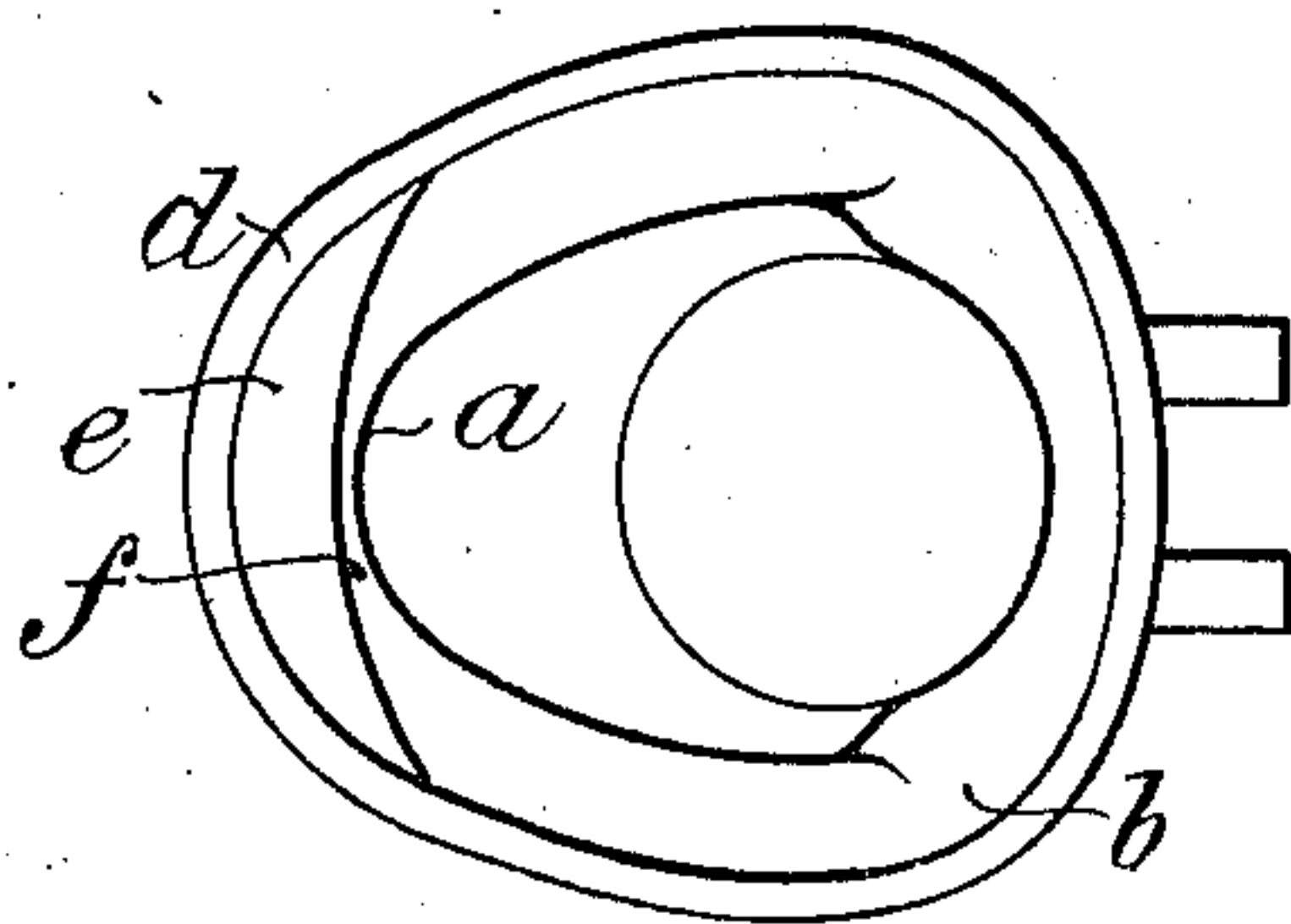


Fig. 6.



Fig. 5.

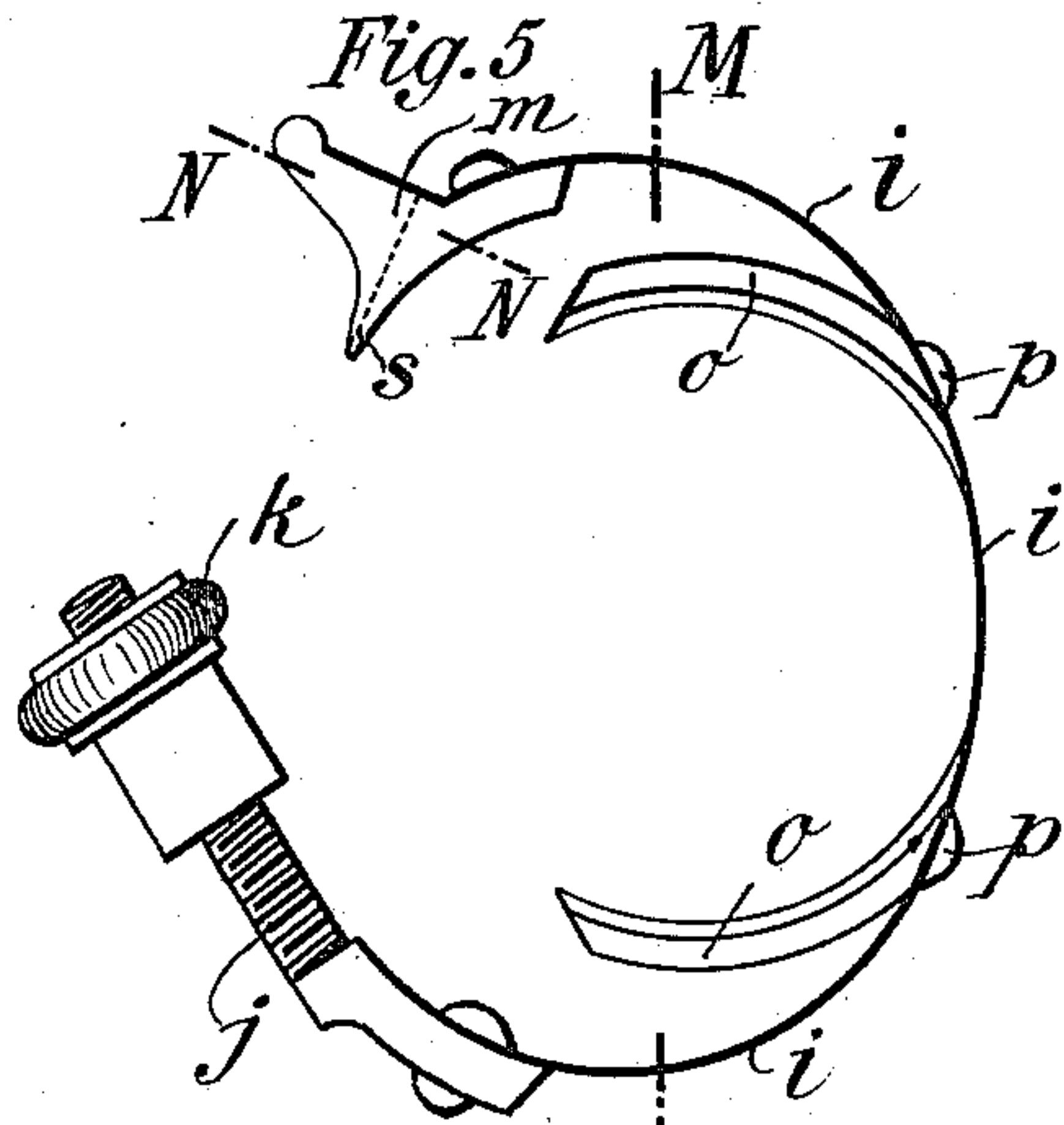
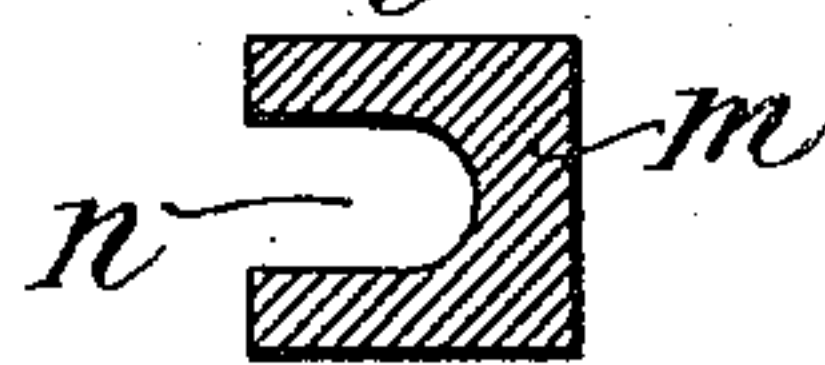


Fig. 7.



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2 SHEETS—SHEET 2.

Fig. 3.

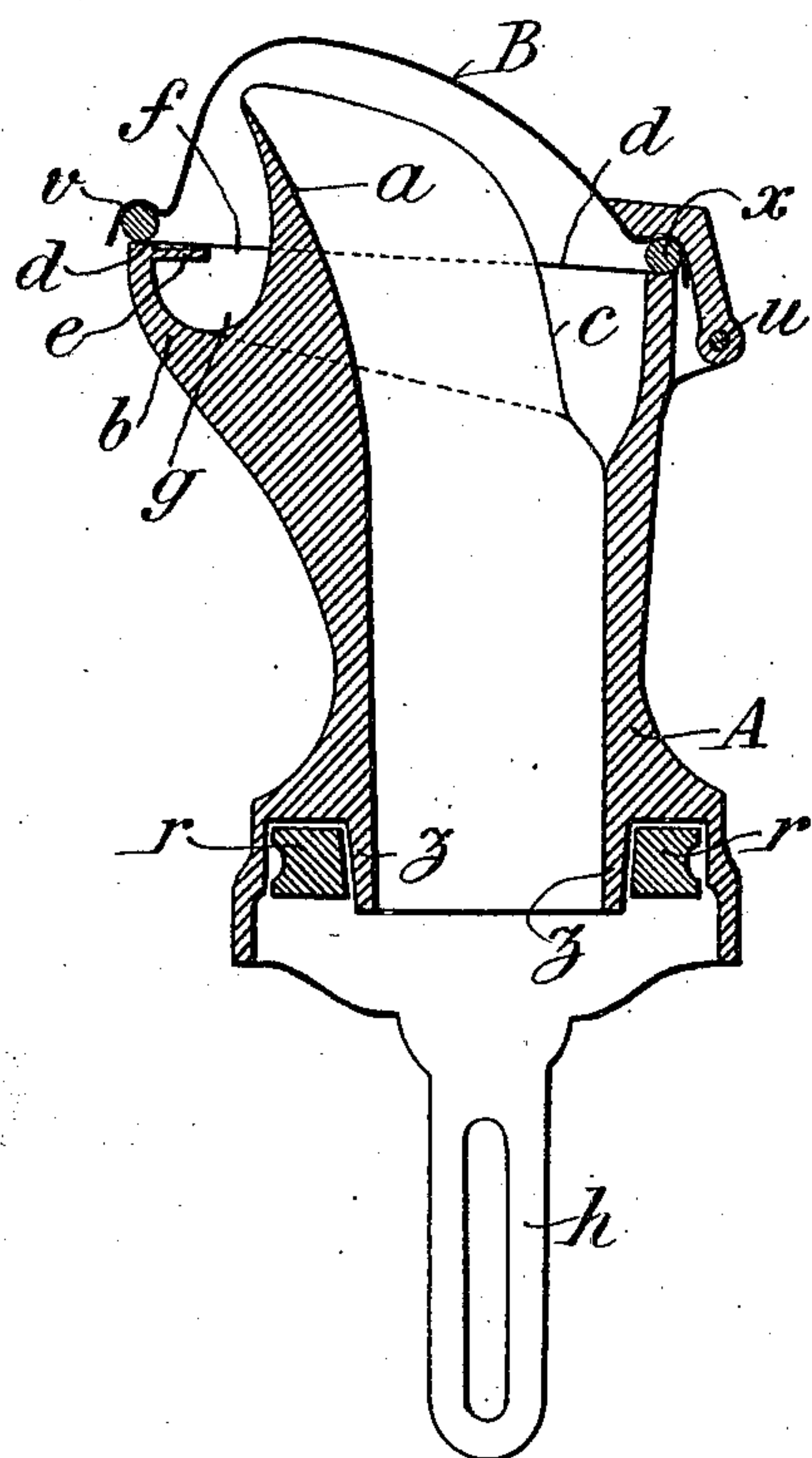


Fig. 8.

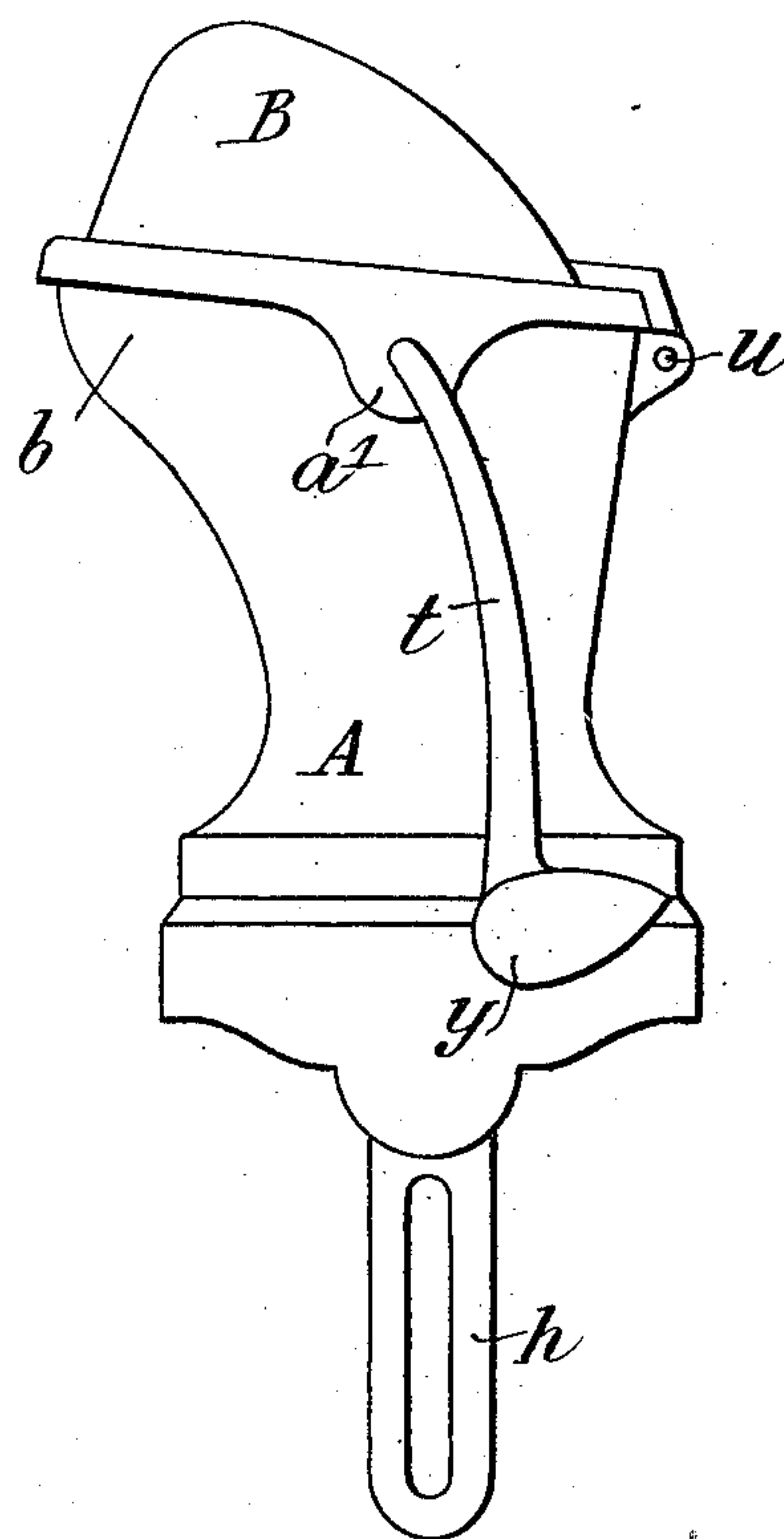
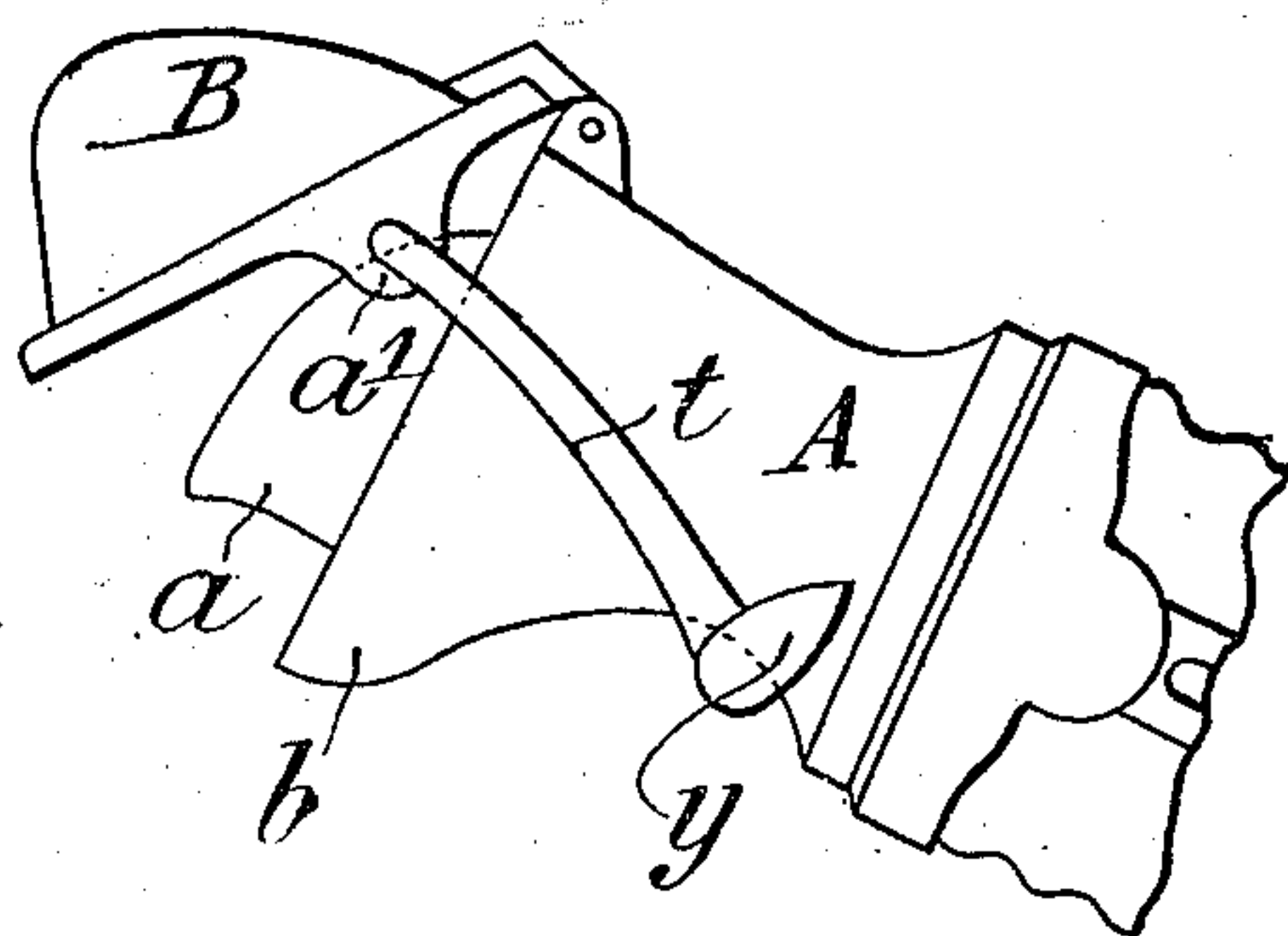


Fig. 9.



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UNITED STATES PATENT OFFICE.

HUBERT DESMOLIÈRES, OF MONTEREAU-FAUT-YONNE, FRANCE.

POURING DEVICE.

975,937.

Specification of Letters Patent.

Patented Nov. 15, 1910.

Application filed October 15, 1909. Serial No. 522,801.

To all whom it may concern:

Be it known that I, HUBERT DESMOLIÈRES, a citizen of the Republic of France, residing in Montereau-faut-Yonne (Seine-et-Marne), France, have invented certain new and useful Improvements in Pouring Devices, of which the following is a specification.

This invention consists in a new or improved type of pouring device which is applicable hermetically to the neck of a bottle of any kind and is so constructed or arranged as to prevent drops of liquid which may adhere after the liquid has been poured, from leaking or trickling to the outside of the bottle, an inconvenience which occurs with ordinary bottles and even with existing pouring devices.

The pouring device which forms the subject of the invention comprises a cup or gutter around the tube through which the liquid is poured, the bottom of this gutter being inclined toward the rear and leading to a gap or opening in the pouring tube, so that the drops of liquid which adhere after pouring are received in the gutter and run back to the opening at the rear of the tube and thence pass back into the bottle. The annular gutter around the pouring tube is preferably provided at the top with a retaining lip or bib the purpose of which will be understood from the following description of the apparatus with reference to the accompanying drawings. The drawings also show means for fixing the pouring device reliably and hermetically to a bottle.

Figure 1 is a side elevation of the pouring device on an enlarged scale. Fig. 2 is an elevation seen from the right of Fig. 1. Fig. 3 is a vertical section. Fig. 4 is a plan with the lid removed. Fig. 5 is a plan of the fixing collar removed. Fig. 6 is a section on M, M (Fig. 5). Fig. 7 is a section on N, N (Fig. 5). Fig. 8 is a side elevation of a modified form of the pouring device. Fig. 9 represents on a smaller scale the pouring device of Fig. 8 fitted to the neck of a bottle and in the pouring position.

The pouring device comprises a body A with a hinged lid B and formed with a spigot *z* for fitting into the neck of a bottle.

The body A comprises a pouring tube *a* extending above a cup or gutter *b* surrounding the said tube and the bottom of which slopes downward toward the back.

The pouring tube *a* is formed at the back with a vertical opening *c* whereby the slop-

ing bottom of the gutter *b* communicates with the interior of the bottle, so that liquid which may leak around the pouring tube *a* is received in the gutter *b* and returned to the bottle. Inside the gutter and very slightly below the rim *d* of the pouring apparatus is provided a crescent shaped bib *e* disposed so as to leave a space *f* between itself and the pouring tube. If a drop of liquid should happen to remain at *g* in the gutter after one pouring operation and should not have time to run back in the gutter and into the bottle before the bottle is inclined to pour the liquid again, this drop of liquid will run along the front of the gutter and will be stopped by the bib *e* so that it cannot reach the top of the rim *d* or the outside of the bottle.

The pouring device is fixed to a bottle by means of tongues *h* secured rigidly to the pouring device and slotted longitudinally so as to be flexible. They are gripped tightly against the neck of the bottle, notwithstanding that the diameters of the bottle necks may be somewhat different, by means of a collar shown in detail in Figs. 5 6 and 7, and formed of a flexible metal band *i* to one end of which is riveted a screwed stem *j* fitted with a nut *k*. The other end of the band *i* carries a cramp *m* formed with a gap *n* for fitting over the stem *j* to clamp the collar in position. The band *i* is slotted near its ends and is provided with two rigid inner segments *o* of triangular section riveted to the band at *p p*. To secure the pouring device to a bottle the collar *i* open, is placed around the neck below the lip *q* of the neck and the pouring device is inserted into the neck so that the flexible tongues *h* pass between the segments *o* and the slotted ends of the band *i*. The collar is closed and tightened up by the nut *k* while at the same time the pouring device is pressed downward so as to compress the elastic packing ring *r* fitted around the spigot *z*. The tightening up of the collar draws the ends of the band *i* down upon the segments *o* and the band *i* is thus caused to grip the flexible tongues *h* against the segments, bending or curving them to the outer contour of the segments. The tongues *h* being thus bent or curved between rigid parts, cannot move upward, so that the pouring device is reliably fixed on the neck of the bottle whatever the diameter of the neck may be, the tongues *h* acting always in the media plane of the pour-

ing device; they therefore exert a perpendicular traction on the pouring device which thus effects uniform compression of the packing ring *r* over its circumference. The
 5 cramp *m* against which the nut *h* bears is formed with a tail *s* in front of the point at which the clamping stress is exerted, so that the traction of the screw *j* is tangential to the neck, thus reducing to the minimum the
 10 force required to be exerted on the nut and obviating strain on the cramp.

It may be observed that this pouring device leaves an opening for the liquid almost equal to that of the neck; the liquid can
 15 thus be poured very freely and the device will serve for thick or viscous liquids.

The lid B hinged at *u* is formed with a bead *v* fitted with a rubber ring *x* which bears upon rim *d* of the pourer. The lid
 20 closes the pourer hermetically by the action of two small levers *t* at the sides connected together by a half collar *t'* and having small weights *y* at their lower ends.

The levers *t* pivot on pins *o'* fixed to ears
 25 *a'* of the lid B and each lever extends beyond *o'* as a short arm *b'* formed by stamping or otherwise with a small projection adapted to engage in a notch or recess of the same shape *d'* in the metal of the lid.
 30 The levers *t* are also formed with a widened portion or collar *e'* gapped at *f'* to fit over the shank of a button *g'* formed or fixed on the pourer *a*. In the position shown in Figs. 1 and 2 the collars *e'* of the levers *t*
 35 are engaged on the buttons *g'* a sufficient grip being provided by the shape of the gaps or slots *f'*. To raise the lid the two weights *y* are pressed back by the finger, so as to release the levers *t* from their retaining
 40 buttons *g'* and these levers *t* are pushed back until the projections *e'* engage in the notches *d'*. The lid then opens automatically under the action of the weights *y* and the liquid can be poured out by simply in-
 45 clining the bottle, the weights *y* tending naturally to keep the lid open as seen in Fig. 9.

When it is not desired to have a hermetically closing lid but simply an automatically
 50 opening one levers or arms *t* (Fig. 8) with weights *y* at the ends are fixed to the ears *a'* of the lid. When the bottle is upright the lid is closed while when the bottle is inclined to pour (Fig. 9) the lid B is raised
 55 automatically from the mouth of the pourer.

What I claim and desire to secure by Letters Patent is:—

1. A pouring device in combination with means for fixing it upon the neck of a bottle comprising a collar fitted and clamped
 60 below the lip of the bottle neck, said collar including resisting segments of triangular section and flexible end bands, and flexible side tongues fixed to the pouring device and adapted to be engaged between said
 65 segments and bands, so as to be bent or curved to the contour of the segments and secure the pouring device firmly on the bottle.

2. A pouring device in combination with
 70 means for fixing it upon the neck of a bottle, a cover hinged on said pouring device, arms pivoted on the sides of the cover and weighted at their lower ends, means for fastening said arms to said cover at such an
 75 angle that the weighted lower ends tend to open the cover automatically, and means adapted for engagement with said arms for holding the cover down to its closed position.
 80

3. A pouring device in combination with means for fixing it upon the neck of a bottle, a cover B hinged on said pouring device, arms *t* weighted at their lower ends and pivoted on the sides of the cover and pro-
 85 vided with projections, the cover being provided with recesses for engaging said projections to hold the arms at such an angle that their weighted lower ends tend to open the cover automatically, and buttons on the
 90 sides of the pouring device adapted to be engaged by said arms to hold the cover down to its closed position.

4. A pouring device in combination with means for fixing it upon the neck of a bottle,
 95 a cover B hinged on said pouring device, arms *t* weighted at their lower ends and pivoted on the sides of the cover and provided with projections, the cover being provided with recesses for engaging said projections
 100 to hold the arms at such an angle that their weighted lower ends tend to open the cover automatically.

In witness whereof, I have hereunto signed my name in the presence of two
 105 subscribing witnesses.

HUBERT DESMOLIÈRES.

Witnesses:

H. C. COXE,
 RENÉ BARDY.