

No. 759,890.

PATENTED MAY 17, 1904.

R. W. HUBBARD.
HINGE.

APPLICATION FILED APR. 20, 1903.

NO MODEL.

Fig. 1.

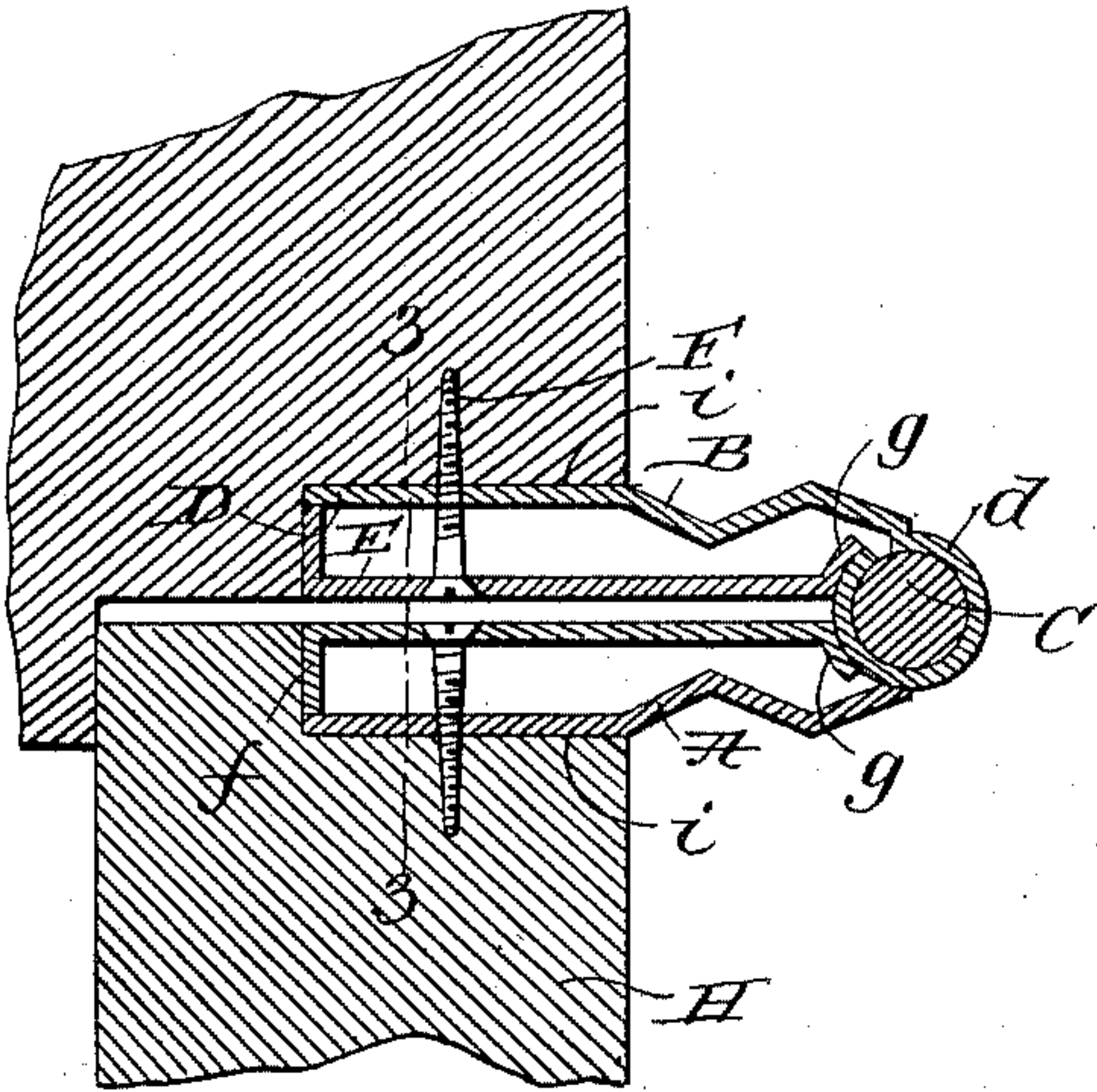


Fig. 2.

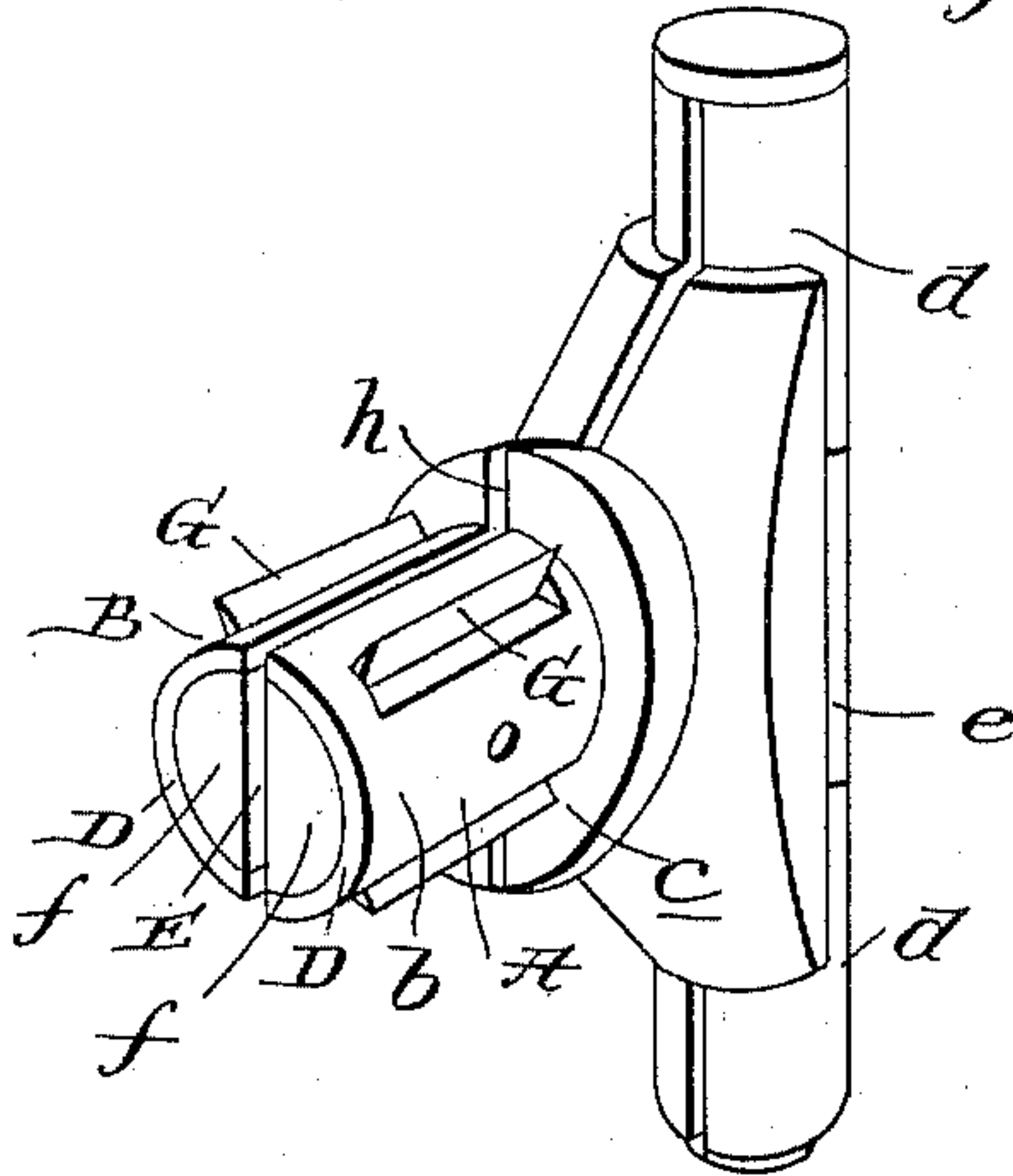


Fig. 3.

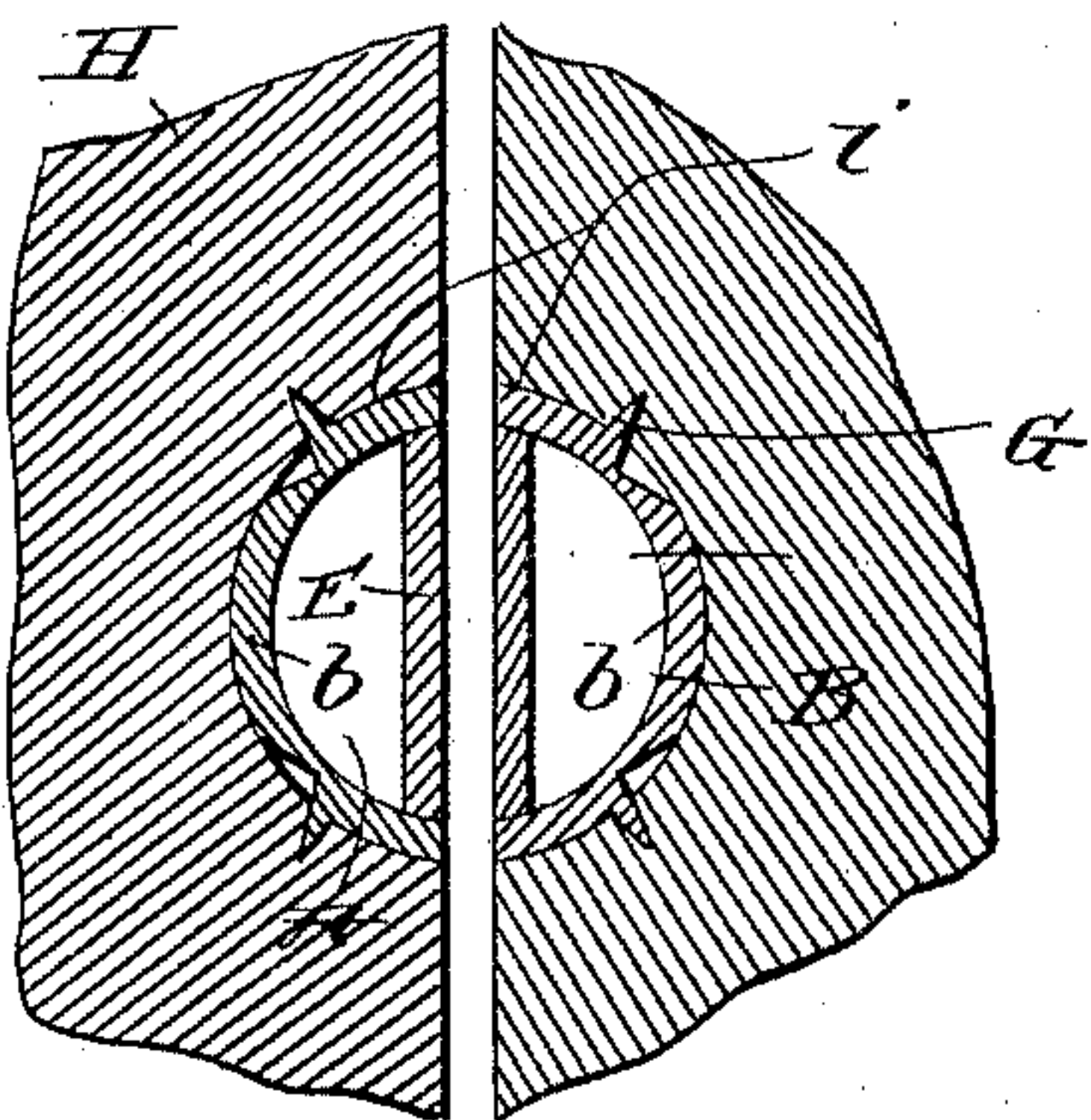
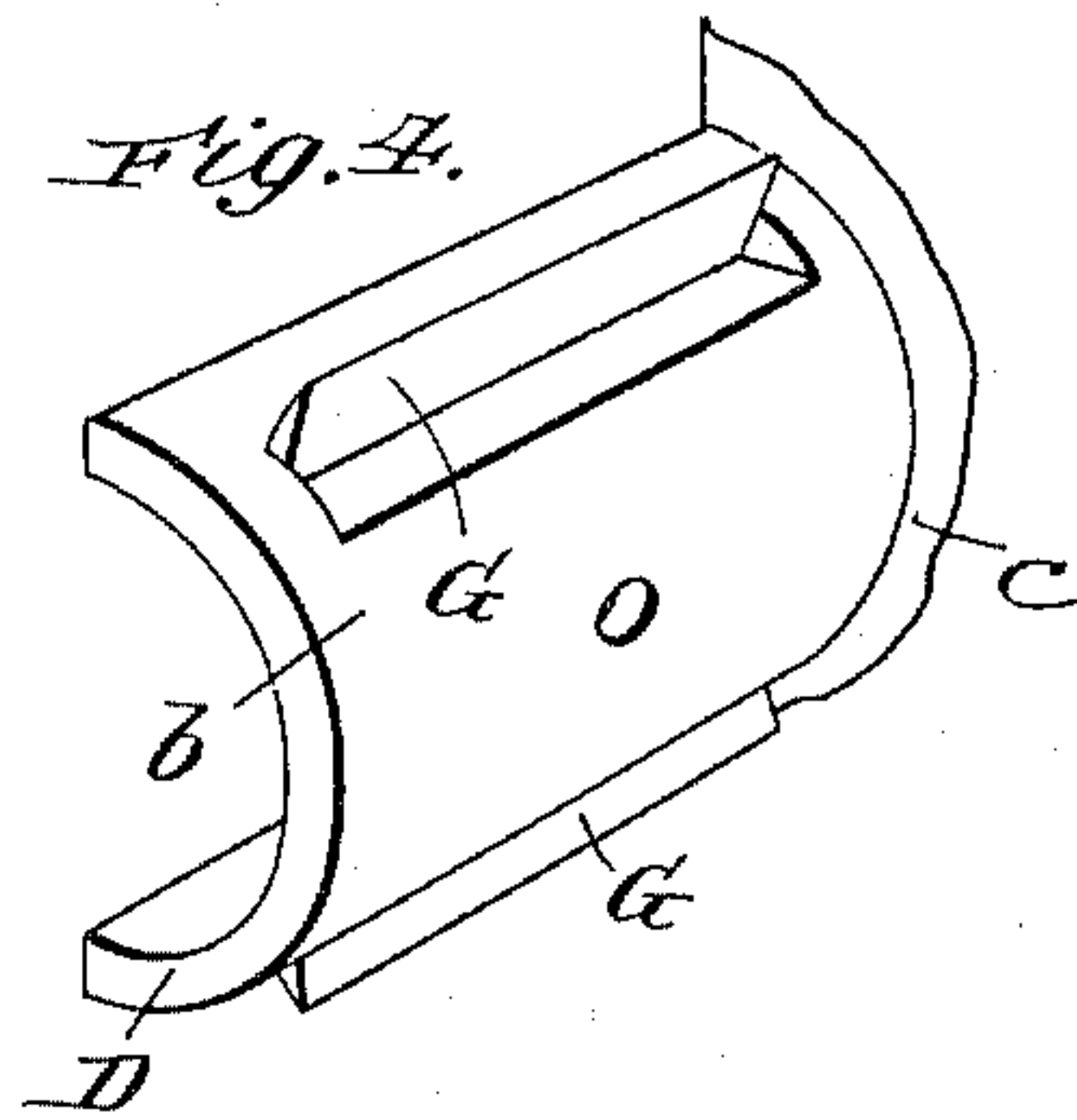


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

RICHARD W. HUBBARD, OF ASHTABULA, OHIO.

HINGE.

SPECIFICATION forming part of Letters Patent No. 759,890, dated May 17, 1904.

Application filed April 20, 1903. Serial No. 153,480. (No model.)

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 invention relates to hinges, more particularly the kind disclosed in my Letters Patent No. 725,712 of April 21, 1903.

The hinge forming the subject-matter of my aforesaid patent comprises pivotally-connected members, each of which is made up of an outer hollow part provided with longitudinal slots, an inner part held in the outer part, and a part interposed between the outer part and the inner part and having fins extending through the slots in the former, the said fins being designed when the hinge is driven into a hole bored partly in a door-jamb and partly in a door to cut into the wood and hold the members in place until the door is opened and the members are connected to the jamb and door, respectively.

The object of the present invention is to provide a hinge the members of which have fins cut and turned or otherwise struck up on their shanks, such fins being advantageous because they may be quickly and easily formed without adding materially to the cost of the hinge and also because they have a knife-edge which adapts them to be easily driven into wood and yet are thick at the base, and consequently adapted to lend strength and rigidity to the members.

With the foregoing in mind the invention will be fully understood from the following description and claims when taken in connection with the accompanying drawings, in which—

Figure 1 is a horizontal section taken through a door and a door-jamb and my improved hinge; Fig. 2, a perspective view of the improved hinge removed; Fig. 3, an enlarged transverse section taken in the plane indicated by the broken line 3 3 of Fig. 1, and Fig. 4 an enlarged perspective view of the shank portion of the outer part of one of the hinged members.

Similar letters designate corresponding

parts in all views of the drawings, referring to which—

A is one member of my improved hinge, B the other member, and C a pintle pivotally connecting the members. The members A B, respectively, comprise an outer part D, formed of sheet metal, and an inner part E, also formed of sheet metal. The parts D are alike in that they have outer end or shank portions *b* of concavo-convex, preferably semicircular, form in cross-section and shoulders *c* at the inner ends of said portions *b*; but they differ in that while the part D of member A has two barrels *d* with a space between them the part D of member B has but a single barrel *e*, said barrel *e* being designed to be arranged between the barrels *d* and, together with the same, receive the pintle. The inner parts E of the members A B have angularly-disposed and rounded portions *f* at their outer ends designed to rest flush with the outer ends of the parts D, curved lips *g* at their inner ends designed to enter under and conform to the barrels of parts D, and lateral projections *h* shaped to enter the recesses of the parts D back of the shoulders *c*. When the parts E are arranged in the parts D as shown and described, it will be seen that they will rest flush with the inner edges of the parts D, and in consequence the members A B will respectively present the appearance of being formed in one piece. It will also be observed that when screws F are passed through registered apertures in the parts E and D and into a door and door-jamb to connect the members to the same said screws will also serve to secure the parts E in the parts D. However, the parts E may be secured in the parts D by means other than the screws F—as, for instance, by brazing—without involving a departure from the scope of my invention.

My present invention consists in providing on the outer sides of the shank portions *b* of parts D longitudinal fins G, which are sheared or cut and turned out from the portions *b* at about the angle shown in order to enable them to cut into the wood diagonally across the grain when the hinge is driven into position, this to prevent splitting of the wood and to hold the members A B in the wood incident

to the application of the hinge. Said fins G, formed as stated, are cheap and strong, and they are also advantageous, since they have a thin cutting edge adapted to be easily driven
5 into wood and a thick base calculated to reinforce and lend increased rigidity and strength to the hinge portions that are driven into the wood.

In applying the hinge the door (indicated
10 by H in Fig. 1) is fitted and placed in the position in which it is to hang, and a hole is bored partly in the door and partly in the jamb, (indicated by i,) the feed of the point of the auger-bit being started in the crack be-
15 tween the jamb and door. A centering-plate, which I have deemed it unnecessary to illustrate, is then placed between the members A and B, and the hinge is driven into the hole by hammer-blows applied to the barrels, so
20 that the fins G cut into the wood and hold the members A B in place, after which the door is opened and the screws F driven home.

Because of the members A B being formed of pieces of sheet metal they are susceptible
25 of being very easily and cheaply manufactured and are also strong and well capable of withstanding the usage to which hinges are ordinarily subjected. I do not desire, however, to be understood as confining myself to
30 forming the members A B of sheet metal, as my improved fins G may be provided on members of any kind of metal without departure from the scope of my invention.

I have entered into a detailed description of the construction and relative arrangement of
35 all parts included in the present and preferred embodiment of my invention in order to impart a full, clear, and exact understanding of said embodiment. Such changes or modifica-
40 tions may, however, be made in practice as fairly fall within the scope of my claims.

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

1. A sheet-metal hinge member having a
45 shank, and one or more longitudinal fins on the shank; the said fins being sheared from and turned outwardly on the shank, and having, in consequence, sharp longitudinal edges and
50 thick bases.

2. A hinge member comprising an outer, hollow part, of sheet metal, having a shank portion, and one or more longitudinal fins
55 thereon; the said fins being sheared from and turned outwardly on the shank, and having, in consequence, sharp longitudinal edges and thick bases, and an inner part, of sheet metal, held in the hollow, outer part, flush with the inner side thereof.

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

RICHARD W. HUBBARD.

Witnesses:

JNO. P. HUBBARD,
F. R. HOGUE.