

A. J. KRABER & G. F. FERRIER.
WIND SHIELD HINGE.

APPLICATION FILED OCT. 12, 1910.

999,040.

Patented July 25, 1911.

Fig. 1.

Fig. 2.

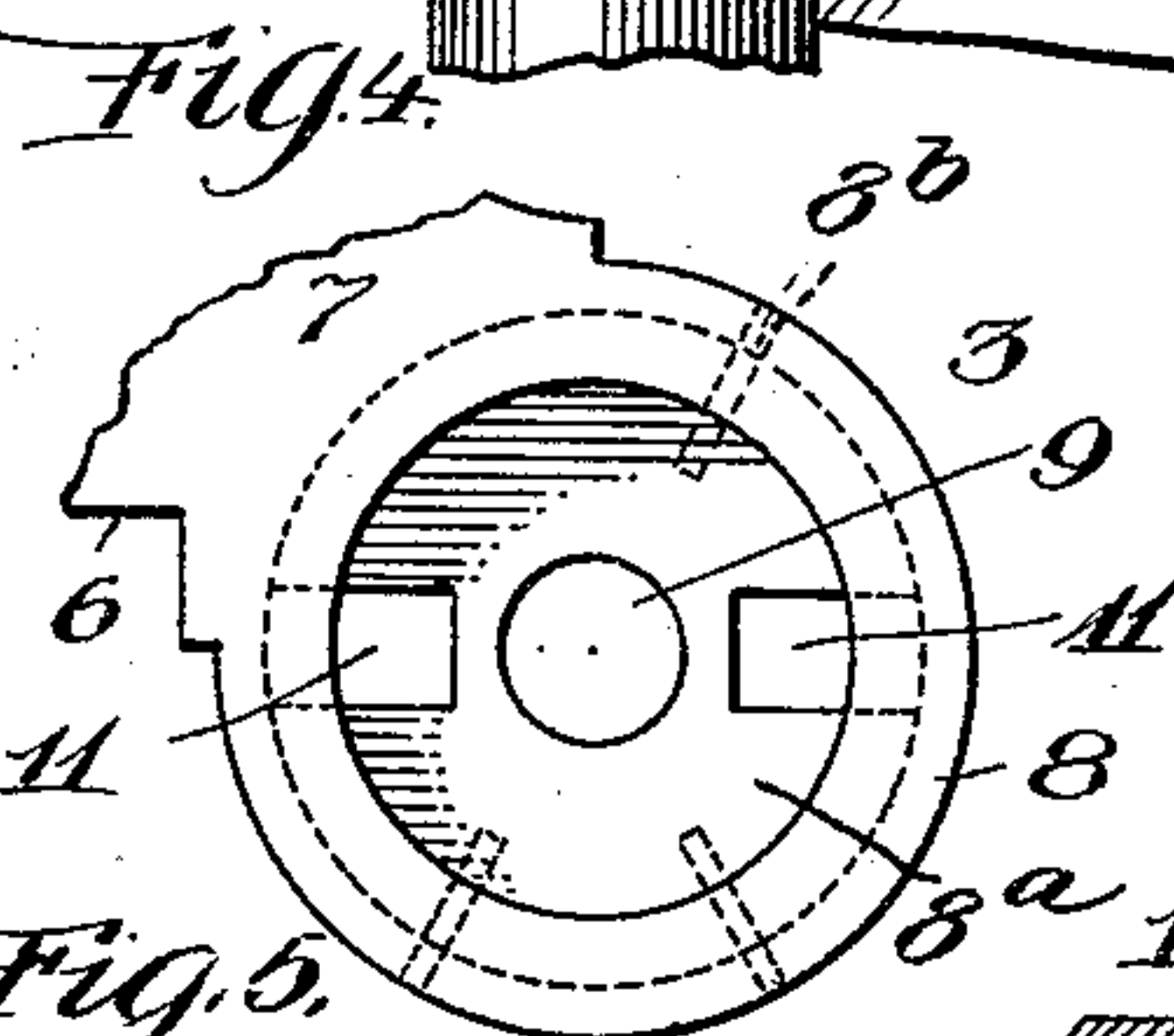
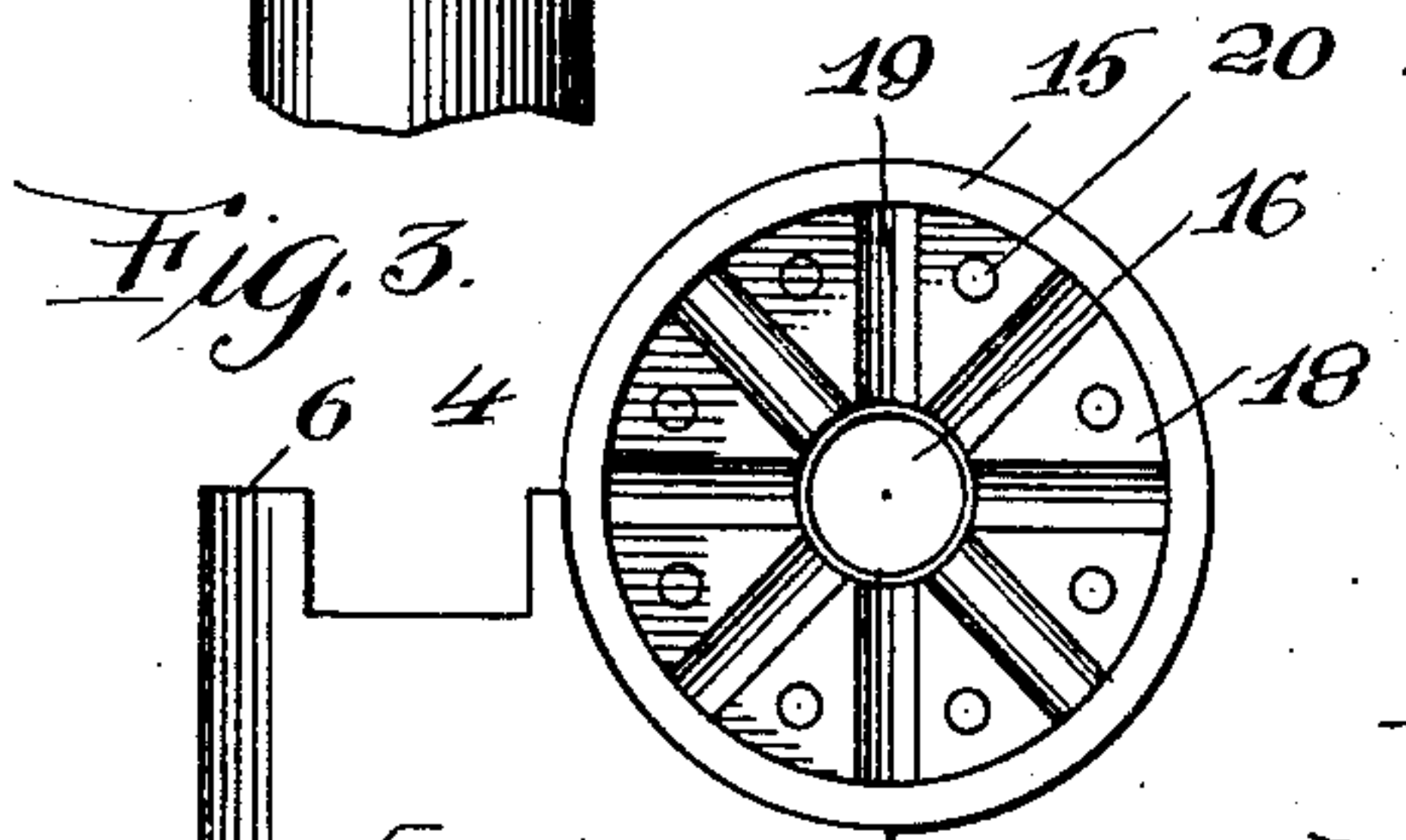
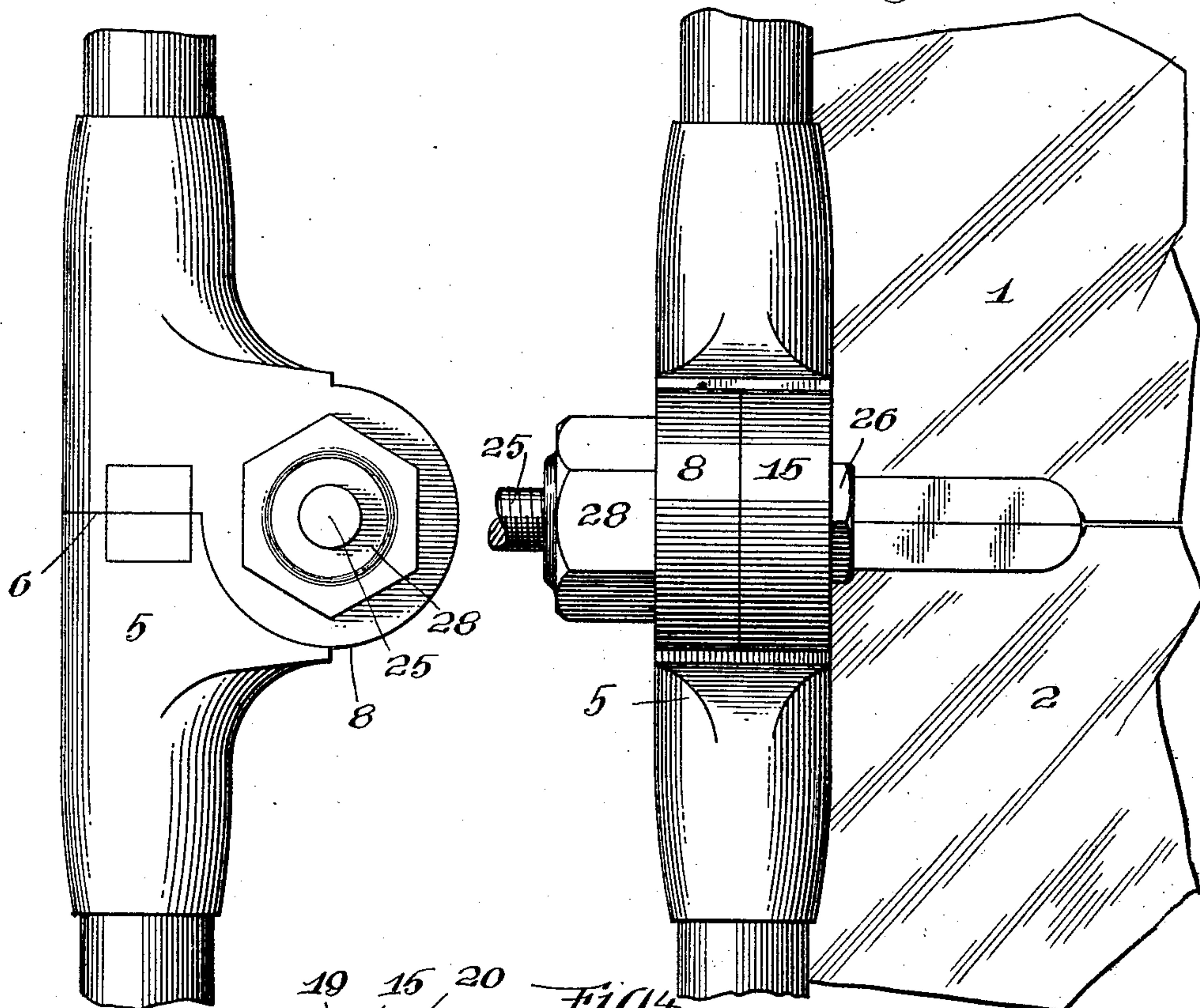
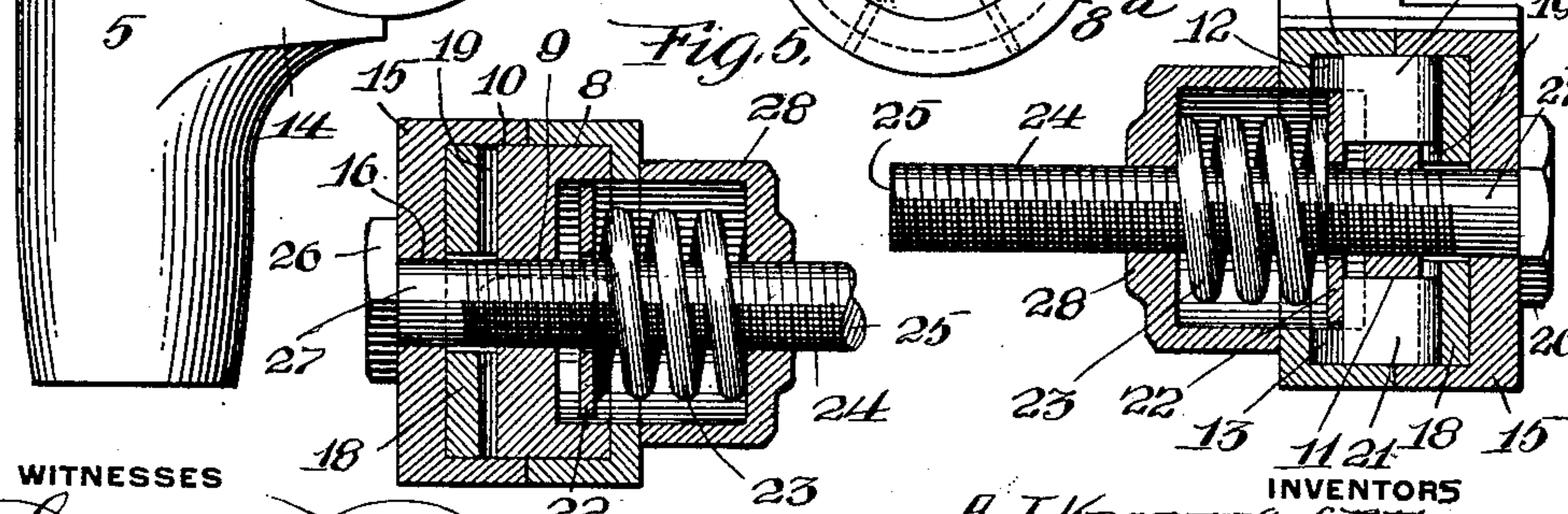


Fig. 6.



WITNESSES

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WIND-SHIELD HINGE.

999,040.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, ARANT J. KRABER and GEORGE F. FERRIER, citizens of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Wind-Shield Hinges, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to automatic wind shield hinges and has for its object to provide a hinge of such class, in a manner as hereinafter set forth, whereby the upper section of a wind shield can be angularly adjusted with respect to the lower section, and maintained in the position to which it has been adjusted.

Further objects of the invention are to provide a wind shield hinge, which is comparatively simple in its construction and arrangement, strong, durable, efficient in its use, readily set up in operative relation with respect to the two sections of the shield, and comparatively inexpensive to manufacture.

With the foregoing and other objects in view, the invention consists of the novel construction, combination, and arrangement of parts, as hereinafter more specifically described and illustrated in the accompanying drawing, wherein is shown the preferred embodiment of the invention, but it is to be understood that changes, variations, and modifications can be resorted to, which come within the scope of the claim hereunto appended.

In describing the invention in detail, reference is had to the accompanying drawing, wherein like reference characters denote corresponding parts throughout the several views, and in which:

Figure 1 is a side elevation of the hinge. Fig. 2 is a front elevation of the same. Fig. 3 is a side elevation of the female member of the hinge. Fig. 4 is a similar view of a portion of the male member of the hinge. Fig. 5 is a vertical longitudinal sectional view of the hinge, and Fig. 6 is a horizontal sectional view of the same.

Referring to the drawings in detail, 1 denotes the upper section of the wind shield and 2 the lower section, and each of which consists of a sheet of transparent material connected to a frame. The side bars of the frame of one section normally oppose the side bars of the other section. The side bars

of one section are hinged to the side bars of the other section, the hinge being so constructed that the section 1 can be angularly adjusted with respect to the section 2, and maintained in its adjusted position.

The hinge includes a male member and a female member, the former is referred to generally by the reference character 3 and the latter by the reference character 4. Each of the members of the hinge consists of a split sleeve 5 provided with an extension 6 constituting an abutment to arrest the movement of the female member, with respect to the male member. The sleeve 5 of the member 3 is connected to the side bars of the section 2, while the sleeve 5 of the member 4 is secured to the side bars of the upper section. The sleeve 5 of the member 4 is oppositely disposed with respect to the sleeve 5 of the member 3.

The sleeve 5 of the member 3 is off-set, as at 7, and formed integral with said off-set portion is a cup-shaped member 8 having its bottom 8^a secured in position by rivets 8^b and formed with a centrally disposed screw threaded opening 9, and with the bottom depending beyond the side to provide an annular shoulder 10. The bottom of the cup-shaped member 8 is formed with a pair of oppositely extending rectangular openings 11, and the inner face of the side of the cup is cut away at 12, 13, forming recesses, which open into the slots 11.

The sleeve 5 of the member 4 is formed with an off-set portion 14, with which is formed integral a cup 15 provided with an opening in its bottom, as at 16. Surrounding the opening 16 is an annulus 18 of hard metal provided with a series of radially disposed grooves 19. The annulus 18 is fixedly secured to the bottom of the cup 15, by the hold-fast devices 20. The cup 8 is of a height approximately half the width of the off-set portion 7, and the cup 15 is of a height approximately half the width of the off-set portion 14. The cups 8 and 15 are positioned against each other, with the annular shoulder 10 extending into the cup 15. The cup 15 is shiftably connected to the cup 8, whereby the upper section 1 can be angularly adjusted with respect to the section 2, when occasion so requires.

To maintain the section 1 in its adjusted position with respect to the section 2, a pair of gripping blocks 21 are loosely mounted in the slots or openings 11, and which are

adapted to engage simultaneously in two of the grooves 19 to prevent movement of the cup 15, until the blocks 21 are released. The blocks 21 are maintained in the grooves 19 through the medium of a retaining plate 22, which is positioned in the cup 8 and abuts against the blocks 21. Bearing against the plate 22 is a coiled spring 23, which surrounds the threaded portion 24 of the shank 25 of a headed bolt, the head of the bolt being indicated by the reference character 26 and the smooth portion of the shank by the reference character 27. The shank of the bolt extends through the cups 8 and 15, and the head of the bolt abuts against the outer face of the bottom of the cup 15. The smooth portion 27 of the shank 25 of the bolt is positioned in the opening 16, whereby the cup 15, when released can be rotated upon the said smooth portion 27. The threaded portion of the bolt 25 engages with the threaded wall of the opening 9, and thereby fixedly maintains the cup 8 in position. Mounted upon the threaded portion 24 of the shank 25 is a retaining cap 28, against which abuts the spring 23. The cap 28 is adapted to be screwed on the threaded portion 24 of the shank 25 of the bolt and abut against the cup 8, the body portion of the latter being of a sufficient width to constitute a bearing for the cap. When the cap 28 is positioned against the cup 8, the spring 23 is compressed and the plate 22 forces the blocks 21 into a pair of grooves 19 and maintains the blocks in the grooves. This operation locks the male and female member of

the hinge together. The shank 25 of the bolt is somewhat elongated and projects outwardly from the cap 28 sufficiently to accommodate the couplings carried by the upper ends of telescopic or brace rods for the wind shield.

What we claim, is:

A wind shield hinge comprising a male and a female member, a cup 8 secured to and off-set with respect to one of said members, a cup 15 secured to and off-set with respect to the other of said members, an annulus arranged within and fixedly secured to the inner face of the bottom of the cup 15, said cup 8 having its bottom projecting beyond its sides and into said cup 15 and provided with a pair of oppositely-disposed slots, gripping blocks mounted in said slots and adapted to engage in said grooves to prevent movement of one of the cups with respect to the other, a spring-pressed plate mounted in said cup 8 and bearing against said blocks for maintaining them in the grooves, a spring extending in the cup 8 and engaging said plate, a bolt extending through and projecting from said cups, and a cup engaging with said bolt and abutting against said spring whereby the spring will engage the plate and maintain the blocks in the grooves.

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

ARANT J. KRABER.

GEORGE F. FERRIER.

Witnesses:

MAX H. SROLOVITZ,

K. H. BUTLER.