

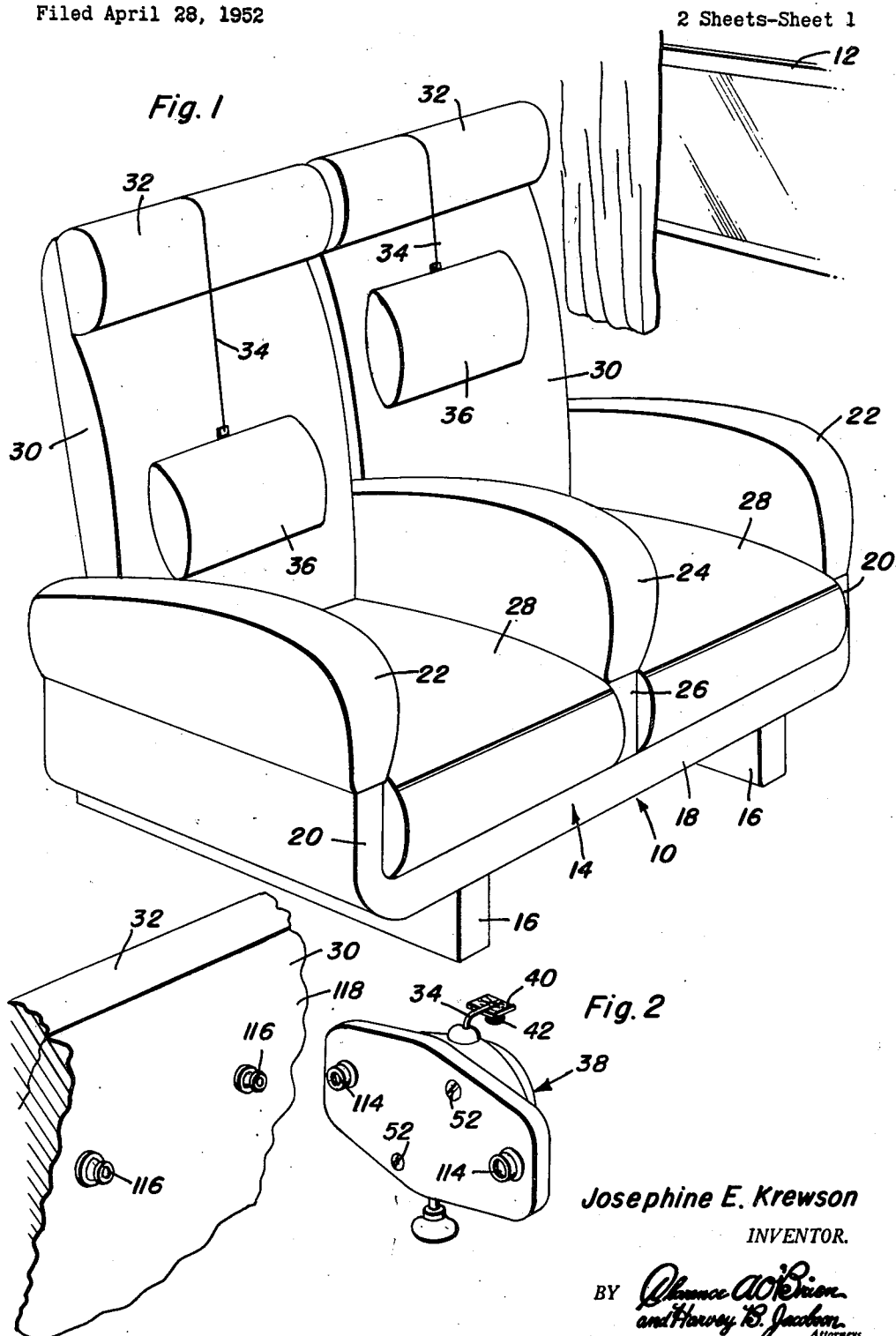
May 17, 1955

J. E. KREWSON

2,708,475

PILLOW HOLDER

Filed April 28, 1952



Josephine E. Krewson
INVENTOR.

BY *Chance A. O'Brien*
and *Harvey B. Jackson*
Attorneys

May 17, 1955

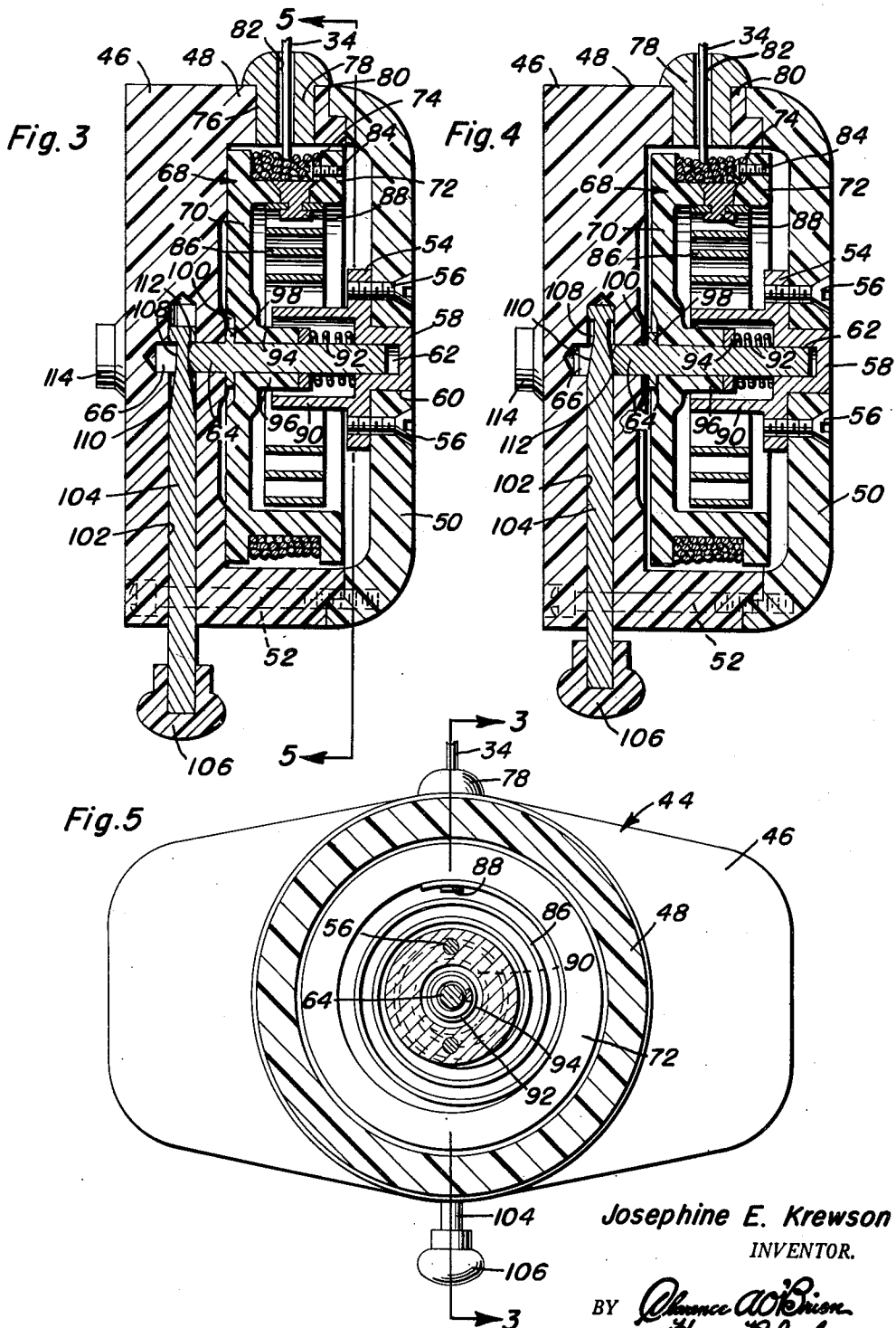
J. E. KREWSON

2,708,475

PILLOW HOLDER

Filed April 28, 1952

2 Sheets-Sheet 2



Josephine E. Krewson
INVENTOR.

BY *Clarence A. O'Brien*
and *Harvey R. Jacobson*
Attorneys

1

2

2,708,475

PILLOW HOLDER

Josephine E. Krewson, Muskegon, Mich.

Application April 28, 1952, Serial No. 284,713

4 Claims. (Cl. 155—177)

This invention relates in general to pillow holders, and more specifically to pillow holders for adjustably vertically positioning a pillow with respect to a seat back.

The primary object of this invention is to provide an improved pillow holder which may be conveniently mounted on a seat back and support a pillow with respect thereto, said pillow being vertically adjustable with respect to the seat back.

Another object of this invention is to provide an improved pillow holder in the form of a housing adapted to be secured to the rear of a seat back and having a flexible member extending therefrom attached at its other end to a pillow for vertically positioning a pillow with respect to the front surface of the seat back.

Another object of this invention is to provide an improved pillow holder which consists of a reeling mechanism for winding a flexible member thereon, said flexible member adapted to have its free end secured to a pillow for supporting the same and vertically positioning it with respect to a seat back on which said reeling mechanism may be secured.

Another object of this invention is to provide an improved reeling mechanism which may be secured to a seat back and which has mounted therein for rotation a spool, said spool being normally locked against rotation by friction engagement of one side face thereof with the housing in which it is mounted, and means associated with said spool for moving the same out of engagement with the housing thereby being free to rotate.

Another object of this invention is to provide an improved releasing mechanism for a spool rotatably mounted within a housing and normally engaged therewith for preventing rotation thereof, said releasing mechanism including a shoulder on a shaft on which said spool is mounted, said shoulder engaging a side face of the spool and adapted to move same out of engagement with the housing, said shaft being moved axially with respect to the housing by a plunger having a cam surface thereon engaging a cam surface of the shaft and urging the same to one side of the plunger.

A further object of this invention is to provide an improved pillow holder for seats, such as aircraft seats, whereby a pillow may be quickly and easily adjusted vertically with respect to a seat back by either a stewardess or a passenger so that the pillow may be maintained in a comfortable position.

With these objects definitely in view, this invention resides in certain novel features of construction, combination and arrangement of elements and portions as will be hereinafter described in detail in the specification, particularly pointed out in the appended claims, and illustrated in the accompanying drawings which form a material part of this application and in which:

Figure 1 is a perspective view of a double aircraft seat, the seat backs of the individual seats each having adjustably positioned thereon a pillow which is supported by the improved pillow holder, which is the subject of this invention;

Figure 2 is an enlarged fragmentary exploded perspective view of the rear portion of the seat back of one of the seats in Figure 1 and shows the manner in which a housing is releasably secured to the rear surface thereof, the housing forming a major portion of the pillow holder.

Figure 3 is an enlarged transverse vertical sectional view taken substantially upon the plane indicated by the section line 3—3 of Figure 5 and shows the internal construction of the housing and the manner in which a spool is normally maintained in a locked position, the spool being illustrated in its locked position;

Figure 4 is a transverse vertical sectional view similar to Figure 3 and shows the spool in its unlocked position and free to rotate; and

Figure 5 is a transverse vertical sectional view on a reduced scale and is taken substantially upon the plane indicated by the section line 5—5 of Figure 3 and shows the general construction of the housing and the relationship of the various elements thereof.

Similar characters of reference designate similar or identical elements and portions throughout the specification and throughout the different views of the drawings.

Referring now to the drawings in detail, it will be seen that there is illustrated in Figure 1 a double seat construction, which is referred to in general by the reference numeral 10, of an aircraft and the position of the same with respect to a window 12 of the aircraft. The double seat construction 10 includes a generally U-shaped base 14 which is supported from the floor of the aircraft by a pair of transversely extending spaced supports 16. The U-shaped base 14 includes a web 18 which is secured to the supports 16 and a pair of upstanding side flanges 20.

Secured to the upstanding flanges 20 of the base 14 are a pair of outer arm rests 22 which are in spaced parallel relation to a central arm rest 24 which extends upwardly from the web 18 of the base 14 as a continuation of a dividing flange 26. Positioned between the dividing flange 26 and the flanges 20 are seat cushions 28 and seat backs 30 which extend upwardly from the rear thereof. The seat backs 30 are provided with head rests 32 at the upper ends thereof, said head rests 32 extending transversely in the general plane of the seat backs 30. Extending over each of the head rests 32 is a flexible member 34 which has secured to the lower end thereof a pillow 36, the pillow 36 being supported by the flexible member 34.

The flexible member 34 secured to the pillow 36 is a portion of the pillow holder, which is the subject of this invention, the pillow holder being referred to in general by the reference numeral 38. It will be understood that the flexible member 34 is in the form of a small cable, tape, cord, etc. and has secured to the lower end thereof a tab 40. The tab 40 has mounted thereon one half of a snap fastener 42 which is engaged with a complementary half for securing the pillow 36 to the free end of the flexible member 34.

Referring now to Figures 3 to 5, it will be seen that the pillow holder 38 includes a housing 44 having an enlarged base portion 46 which is flat and generally rectangular in outline. Extending rearwardly from the base portion 46, which is adapted to be mounted vertically, is a circular casing 48 which is provided with a removable cap 50. It will be noted that the casing 48 is hollow and that the cap 50 is secured thereto by an elongated fastener 52 passing through the base plate 46.

Referring now to Figure 3 in particular, it will be seen that secured to the underside of the cap 50 is a plate 54, the plate 54 being secured to the cap by a plurality of fasteners 56 having their heads countersunk in the outer face of the cap 50. The plate 54 is generally circular in outline and has a concentric rearwardly extending boss 58 which is positioned within a concentric opening 60 in the cap 50. The boss 58 is provided with a centrally located

cylindrical recess 62 in which is received one end of a shaft 64. The other end of the shaft 64 is mounted in an elongated cylindrical recess 66 in the base plate 46, the recess 66 being aligned with the recess 62.

Mounted on the shaft 64 for rotation therewith by a pressed fit or other suitable connection is a spool 68 which includes a circular plate 70 having projecting rearwardly therefrom an annular flange 72. The annular flange 72 is provided with a rectangular cross section circumferential groove 74 therein adapted to receive flexible elements to be wound upon the spool.

It will be noted that the casing 48 is provided with a vertically extending bore 76 therethrough, the center of the bore 76 being in alignment with the center of the groove 74 of the spool 68. Mounted within the bore 76 is a cylindrical guide 78 provided with an annular shoulder 80 for limiting its entrance into the bore 76. The guide 78 is provided with a centrally located bore 82 through which passes the one end of the flexible member 34. It will be noted that the flexible member 34 is reeled upon the spool 68 within the groove 74 and is secured to the spool 68 by a fastener 84.

In order that the flexible member 34 may be automatically reeled upon the spool 68, the spool 68 is provided with a winding spring 86 which has the outer end secured to the annular flange 72 by a special fastener 88. The inner end of the spring 86 is secured to the outer surface of an inwardly extending annular flange carried by the plate 54. It will be understood that as the flexible member 34 is unreeling from the spool 68, the spool 68 rotates with the result that the spring 86 is coiled in tighter loops. When tension on the flexible member 34 is released, the spring 86 urges the spool 68 to rotate in the opposite direction and results in the reeling of the flexible member 34 thereon.

It will be noted that the housing 44 and the spool 68 are formed of plastic and that the inner side face of the circular plate 70 of the spool 68 is urged into face to face engagement with the inner surface of the base plate 46 with the result that the spool 68 is frictionally retained against rotation. The spool 68 is urged into such relation with the base plate 46 by a coil spring 92 mounted on the shaft 64 and bearing against both the inner surface of the plate 54 and a washer 94 carried at the rear end of a central boss 96 extending rearwardly from the circular plate 70.

It will be noted that the shaft 64 is provided with an intermediate annular flange 98 which engages the central portion of the circular plate 70 on the side opposite from the boss 96, the annular flange 98 being located within a concentric recess 100 in the face of the circular plate 70. The shaft 64 is mounted for axial movement in the recesses 62 and 66 and adapted for movement towards the rear of the housing 44 with the result that the spool 68 is moved out of engagement with the base plate 46 and is free to rotate.

In order that the shaft 64 may be moved axially, the base plate 46 is provided with a vertically extending bore 102 which intersects with the recess 66 and extends upwardly therefrom. Mounted within the bore 102 for movement therethrough is a plunger 104 whose lower end is provided with an actuating knob 106. The plunger 104 is provided adjacent its upper end with an annular recess 108 which is of a smaller depth at the lower end thereof and gradually increases in depth towards the upper end to form a camming surface 110 on the plunger 104, said camming surface 110 increasing in diameter toward the lower end of the plunger 104. The camming surface 110 is engaged with a rounded cam surface 112 on the end of the shaft 64 disposed in the recess 66. As the plunger 104 is moved upwardly in the bore 102, the camming surface 110 engages the rounded cam surface 112 to the shaft 64 and urges the same towards the cap 50. This results in the spool 68 being moved away from the base plate 46 by the annular flange 98 of the shaft 64 and permitting the spool 68 to rotate.

The housing 44 secured to the rear surface of its respective seat back 30 by a pair of snap elements 114 which extends from the face thereof opposite from the casing 48 and are engageable with complementary snap elements 116 carried by the rear surface 118 of the seat back 30.

Inasmuch as the housing 44 and the spool 68 are made of plastic, the pillow holder 38 is relatively light in weight and, therefore, suitable for use in an aircraft. The plastic housing may be made up in a variety of colors, for decorative purposes, or to match the upholstery if desired. Also, the flexible member 34 may be made in various colors either to match or contrast with the plastic case. Furthermore, it will be understood that the pillow holder 38 may be utilized in any place where it is desired to maintain a pillow in an adjusted vertical position such as buses, trains or even in baby carriages.

When it is desired to position one of the pillows 36, the plunger 104 of its respective pillow holder 38 is moved inwardly and the pillow 36 is then moved to its desired vertical position. After the plunger 104 is released, the shaft 64 is urged forwardly by a coil spring 92 with the result that the plunger 104 moves outwardly, the outward movement of the plunger 104 also being due to its own weight. The spool 68, on which the one end of the flexible member 34 is wound is then locked against rotation and the pillow 36 is maintained in its desired vertical position. When it is desired to raise the pillow 36, or to move it out of position in front of the seat back 30, the plunger 104 is moved inwardly of the housing 44 and the spring 86 reels in the flexible member 34 which pulls up the pillow 36 secured to the lower end thereof.

The operation of this device will be understood from the foregoing description of the details thereof, taken in connection with the above recited objects and drawings. Further description would appear to be unnecessary.

Minor modifications of the device, varying in minor details from the embodiment of the device illustrated and described here, may be resorted to without departure from the spirit and scope of this invention, as defined in the appended claims.

Having described the invention, what is claimed as new is:

1. A pillow holder for adjustably vertically positioning a pillow with respect to the back of a seat, said pillow holder comprising a housing adapted to be mounted on the rear of a seat back, means carried by said housing for removably securing same to a seat back, a flexible member carried by said housing and having pillow connecting means on the free end thereof, the flexible member being wound on a spool mounted in said housing and adapted to be unreeling therefrom in response to pull thereon, lock means for preventing rotation of said spool, said spool being mounted on a shaft carried by said housing and maintained in a normally locked position by friction engagement between a side face of said spool and said housing, said shaft being axially movable and having a shoulder in engagement with said side face of the spool, cam means for moving said shaft and shoulder axially, axial movement of said shoulder moving said side face of the spool out of engagement with said housing and permitting the same to be rotated.

2. A pillow holder for adjustably vertically positioning a pillow with respect to the back of a seat, said pillow holder comprising a housing adapted to be mounted on the rear of a seat back, means carried by said housing for releasably securing said housing to a seat back, a flexible member carried by said housing and having pillow connecting means on the free end thereof, the flexible member being wound on a spool mounted in said housing and adapted to be unreeling therefrom in response to pull thereon, lock means for preventing rotation of said spool, said spool being mounted on a shaft carried by said housing and maintained in a normally locked position by friction engagement between a side face of said spool and said housing, said shaft being

5

axially movable and having a shoulder in engagement with said side face of the spool, cam means for moving said shaft and shoulder axially, axial movement of said shoulder moving said side face of the spool out of engagement with said housing and permitting the same to be rotated, said spool being provided with a spring mechanism for automatically rewinding said flexible member on said spool, said spring being disposed within the confines of said spool.

3. In combination with a seat having a back, a pillow holder for vertically positioning a pillow with respect to the back of the seat, said pillow holder comprising a housing detachably secured to the rear surface of said seat back, a flexible member carried by said housing having one end detachably connected to the pillow, said flexible member being secured to said pillow by snap fasteners, the flexible member being wound on a spool mounted in said housing and adapted to be unreeled therefrom in response to pull thereon, lock means for preventing rotation of said spool, said spool being mounted on a shaft carried by said housing and maintained in a normally locked position by friction engagement between a side face of said spool and said housing, said shaft being axially movable and having a shoulder in engagement with said side face of the spool, cam means for moving said shaft and shoulder axially, axial movement of said shoulder moving said side face of the spool out of engagement with said housing and permitting the same to be rotated.

4. In combination with a seat having a back, a pillow holder for vertically positioning a pillow with respect to the back of the seat, said pillow holder comprising a

6

housing detachably secured to the rear surface of said seat back, a flexible member carried by said housing having one end detachably connected to the pillow, said flexible member being secured to said pillow by snap fasteners, the flexible member being wound on a spool mounted in said housing and adapted to be unreeled therefrom in response to pull thereon, lock means for preventing rotation of said spool, said spool being mounted on a shaft carried by said housing and maintained in a normally locked position by friction engagement between a side face of said spool and said housing, said shaft being axially movable and having a shoulder in engagement with said side face of the spool, cam means for moving said shaft and shoulder axially, axial movement of said shoulder moving said side face of the spool out of engagement with said housing and permitting the same to be rotated, said spool being provided with a spring mechanism for automatically rewinding said flexible member on said spool, said spring being disposed within the confines of said spool.

References Cited in the file of this patent

UNITED STATES PATENTS

856,025	Brown	June 4, 1907
1,714,225	Hyde et al.	May 21, 1929
2,060,298	Gailey	Nov. 10, 1936
2,403,653	Geohegan et al.	July 9, 1946
2,480,335	Nordmark	Aug. 30, 1949
2,591,306	Sherman	Apr. 1, 1952

FOREIGN PATENTS

502,827	Belgium	May 15, 1951
---------	---------	--------------