

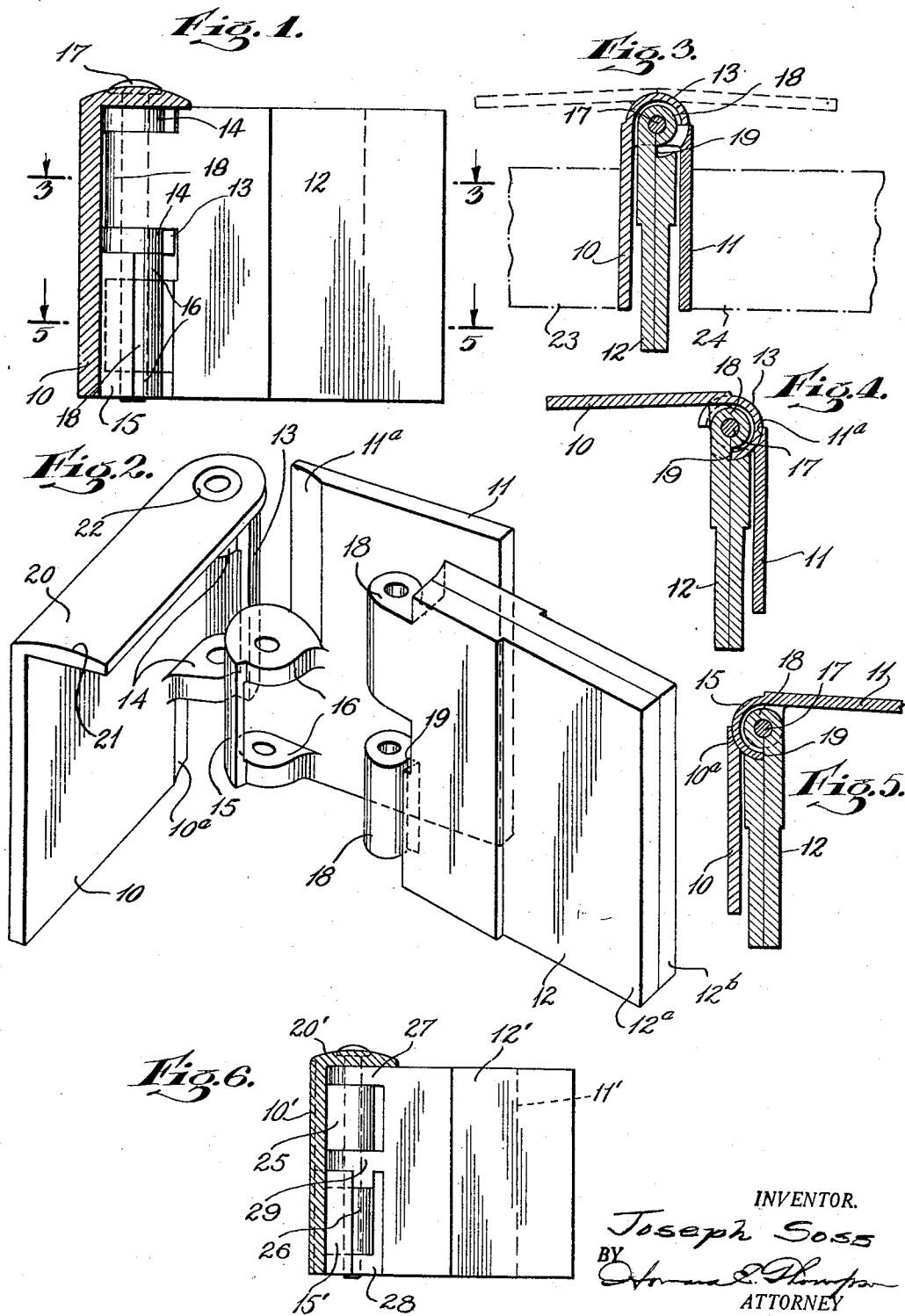
March 21, 1933.

J. SOSS

1,901,994

COVERED JOINT HINGE

Filed May 8, 1931



INVENTOR.
Joseph Soss
BY *Armand E. Thompson*
ATTORNEY

UNITED STATES PATENT OFFICE

JOSEPH SOSS, OF ROSELLE, NEW JERSEY

COVERED JOINT HINGE

Application filed May 8, 1931. Serial No. 535,815.

This invention relates to covered joint hinges, and particularly to hinges of this class employing three butt members, one of which is secured to a stationary support, and the other two of which are attached to doors or swinging members, and particularly to hinges of this class designed for use in supporting doors of motor vehicles; and the object of the invention is to provide a hinge of the class specified, two of the butt members of which include curved hood portions arranged one above the other and including pintle bearings and the third butt having pintle bearings nesting within the bearings and hood portions of the first named butt members; a further object being to so fashion the separate butt members as to permit swinging movement of the movable butt members into position to give free access to the door opening controlled by the doors coupled therewith as well as to provide means for limiting the opening movement of said doors, preventing the same from coming in contact with each other when both doors are moved into open position; a further object being to fashion one of the butt members of the hinge from two substantially similar parts, each including a pintle bearing portion and attaching plate portion, said parts being secured together to form a unitary structure; a still further object being to provide a hinge of the class specified, wherein the joint of the hinge is concealed in the several positions of the separate butt members, one of the butt members including a top cover plate adapted to overlie the other two butt members when the several butt members of the hinge are in closed position; and with these and other objects in view, the invention consists in a hinge of the class and for the purpose specified, which is simple in construction, efficient in use, and which is constructed as hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which:

Fig. 1 is a side and sectional view of a hinge

made according to my invention, with the hinge in the position shown in Fig. 4.

Fig. 2 is a perspective view showing the separate parts of the hinge in adjacent, detached relation.

Fig. 3 is a section on the line 3—3 of Fig. 1, on a reduced scale and in a closed position, indicating the method of use of the hinge.

Fig. 4 is a view similar to Fig. 3, showing one of the hinge butts in a different position.

Fig. 5 is a view similar to Fig. 4, showing the other butt in a different position, the section being on the line 5—5 of Fig. 1; and,

Fig. 6 is a view similar to Fig. 1 but showing a modification.

In the construction shown in Figs. 1 to 5 inclusive, I provide a hinge consisting of two outer butt members 10 and 11 and an intermediate butt member 12. The member 10 has at its outer end a curved hood portion 13 having top and bottom walls forming pintle bearing members 14, the hood portions and bearings occupying substantially one-half of the width of the hinge. The butt member 11 is provided with a hood portion 15 having top and bottom walls forming bearings 16. The hood portion 15 is adapted to be arranged beneath the hood portion 13 to form a complete cover concealing the joint of the hinge. The bearings 14 and 16 are apertured to receive the usual pintle pin 17, which also passes through pintle bearings 18 arranged at the outer edge of the butt member 12 and spaced hereon to fit within and between the bearings 14 and 16 of the respective butts 10 and 11. It will be noted that the outer edges 10a and 11a of the butt members 10 and 11 at the sides of the hood portions thereon, are curved to conform with and move over the curved hood portions 15 and 13 respectively of the companion butt members, in the operation of moving either one or both of said butt members with respect to the stationary butt member 12. The member 12 is also provided adjacent each bearing 18 with arc-shaped recesses 19 in which the free edges of the respective hood members 13 and 15 are adapted to pass in the said movement of the separate butt members.

The butt member 10 also preferably in-

cludes a top wall plate 20 which may be formed integral with the member 10 or may constitute a separate part welded upon the upper edge or surface of the member 10 in order to form a cover concealing the top of all of the butt members, thus preventing rain, dust and dirt from passing in and between the attaching plate portions of the respective butts. This cover plate is preferably provided with a rounded upper surface 21 to prevent the collection of moisture thereon, and is recessed as seen at 22 to receive the head of the pintle pin.

The member 12 may be of unitary construction, but it is preferred that this member be constructed of two similar parts 12a and 12b, each including one of the bearings 18. These parts are placed one upon the other and welded or otherwise secured together to form a unitary structure.

It will be understood that the member 12 is secured to a stationary support in the use of the hinge in connection with motor vehicles. This member will be secured to a post disposed intermediate two doors indicated at 23 and 24 in dotted lines in Fig. 3 of the drawing, said doors being secured to the respective butt members 10 and 11 with the pintle bearing portions of all of the butt members exposed outwardly of the door.

When the doors are in closed position as indicated in said figure, it will be understood that the hood portions 13 and 15 will form a cover concealing the joint of the hinge throughout the entire width thereof. This joint will be maintained concealed in the movement of either or both of the butt members and doors into open position. In this connection, it will be understood that the free edge of the hood members 13—15 will strike the base of the recesses 19 to limit the movement of both butt members and doors into open position, thus preventing the doors from coming in contact with each other. The complete movement is somewhat less than 90°.

In Fig. 6 of the drawing, I have shown a slight modification wherein the butt members 10' and 11' instead of being provided with the two pintle bearings 14—16 are each provided with one elongated bearing 25 and 26 respectively, these bearings being arranged within the hood portions of said butt members. Instead of providing two long bearings 18 on the butt member 12', said member is provided with three small bearings 27, 28 and 29. The bearings 27 and 28 are disposed one outwardly of the bearing 25 and the other outwardly of the bearing 26, whereas the bearing 29 is thicker than the bearings 27 and 28 and is disposed between adjacent faces of the hood portions of the butts 10' and 11' and between adjacent faces of the bearings 25 and 26.

With the construction shown in Fig. 6, it will be understood that the bearings 27 and 28 are arranged outermost with respect to the

respective butts, and the top cover plate 20' extends over the bearing 27, the same as in its arrangement over the upper bearing 14 of the butt shown in Figs. 1 to 5 inclusive. Aside from these slight changes, the structure shown in Fig. 6 is the same as that shown in the other figures, and the operation thereof will also be the same.

It will be understood that any suitable means will be provided for securing the attaching plate portions of the respective butts to their supports as is common with other hinges of this class. While I have shown certain forms of construction for carrying my invention into effect, and have illustrated a hinge of specific contour and design, it will be apparent that my invention is not necessarily limited in these respects, and various changes in and modifications of the construction herein shown and described may be made within the scope of the appended claims without departing from the spirit of my invention or sacrificing its advantages.

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

1. A hinge of the class described comprising a stationary butt member including pintle bearings at one end thereof and two movable butt members, each of said movable butt members including curved hood portions arranged in abutting relation with respect to each other when the hinge is assembled, forming means for concealing the joint of the hinge in the several positions of said butt members with respect to each other, means on the stationary butt member permitting the movement of the hood portions of the other butt members with respect thereto and for limiting the movement of the second named butt members, and each of the second named butt members including wall portions disposed at one side of the hood thereof, cooperating with the hood of the companion butt member to form a neat and finished appearance therebetween.

2. A hinge of the class described comprising two butt members, pintle bearings at one end of said butt members adapted to receive a pintle pin for hingedly coupling the same together, and each of said butt members including a curved hood portion forming a complete cover from the joint of the hinge, and said curved hood portions being in common alinement and in edge to edge relation.

3. A hinge of the class described comprising two butt members, pintle bearings at one end of said butt members adapted to receive a pintle pin for hingedly coupling the same together, and each of said butt members including a curved hood portion forming a complete cover for the joint of the hinge, said curved hood portions being in common alinement and in edge to edge relation, and each butt member including a wall portion adapt-

ed to pass freely over the hood portion of the companion butt member in the relative movement of said butt members and to form a neat and finished appearance therebetween.

5 4. A hinge of the class described comprising two butt members, pintle bearings at one end of said butt members adapted to receive a pintle pin for hingedly coupling the same together, and each of said butt members
10 including a curved hood portion forming a complete cover for the joint of the hinge, said curved hood portion being in common alinement and in edge to edge relation, and an intermediate butt member having pintle bearings adapted to be arranged within the hood
15 portions of the first named butt members and cooperating with the pintle bearings thereof.

5. A hinge of the class described comprising
20 two butt members, pintle bearings at one end of said butt members adapted to receive a pintle pin for hingedly coupling the same together, and each of said butt members including a curved hood portion forming a
25 complete cover for the joint of the hinge, said curved hood portion being in common alinement and in edge to edge relation, an intermediate butt member having pintle bearings adapted to be arranged within the hood portions
30 of the first named butt members and cooperating with the pintle bearings thereof, and the last named butt member including recessed portions adapted to receive the free edges of the hood portions of the other butt
35 members in the movement thereof with respect to each other and the last named butt member.

6. A hinge of the class described comprising
40 a stationary butt member including pintle bearings and two substantially similar movable butt members including pintle bearings adapted to register with the pintle bearings of the first named butt member and to be hingedly coupled therewith by a pintle pin
45 passed through all of said bearings, said last named butt members being arranged one at each side of the first named butt member, and each of the movable butt members having curved hood portions arranged one upon the
50 other, forming a continuous cover for the joint of the hinge in the several positions of said butt members with respect to each other.

7. A hinge of the class described comprising
55 a stationary butt member including pintle bearings and two substantially similar movable butt members including pintle bearings adapted to register with the pintle bearings of the first named butt member and to be hingedly coupled therewith by a pintle pin
60 passed through all of said bearings, said last named butt members being arranged one at each side of the first named butt member, and a hood portion concealing the joint of the hinge.

ing a stationary butt member including pintle bearings at one end thereof and two movable butt members, each of said movable butt members including pintle bearings and curved hood portions enclosing said bearings
70 and arranged one above the other and in abutting relation with respect to each other when the hinge is assembled, and said hood portions concealing the joint of the hinge in
75 the several positions of said butt members with respect to each other.

In testimony that I claim the foregoing as my invention I have signed my name this 7th day of May 1931.

JOSEPH SOSS. 80

85

90

95

100

105

110

115

120

125

130

65 8. A hinge of the class described comprising