Nov. 9, 1926. 1,606,047

J. SOSS

HINGE

Filed Dec. 24, 1924

Fig. 1.

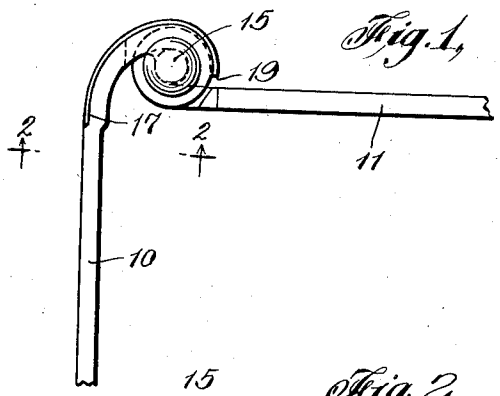


Fig. 2.

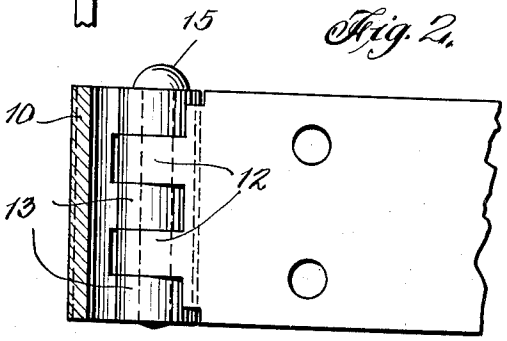


Fig. 3.

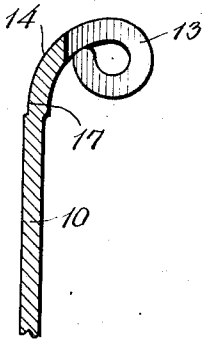


Fig. 4.

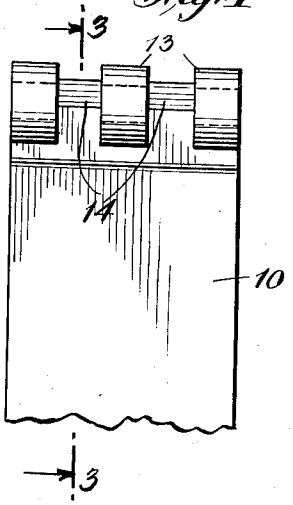


Fig. 5.

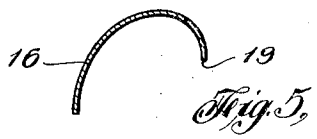


Fig. 6.

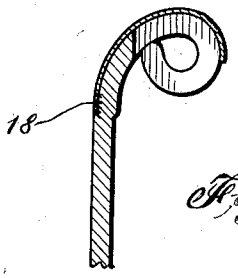


Fig. 7.

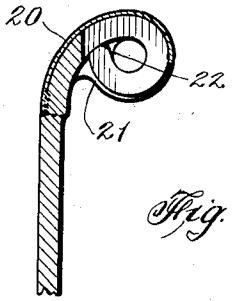
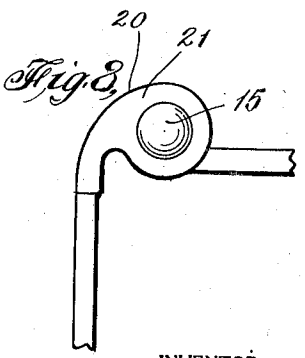


Fig. 8.



INVENTOR

Joseph Soss

BY

Howard C. Pomps

ATTORNEY

Patented Nov. 9, 1926. 1,606,047

UNITED STATES PATENT OFFICE.

JOSEPH SOSS, OF BROOKLYN, NEW YORK.

HINGE.

Application filed December 24, 1924. Serial No. 757,795.

This invention relates to hinges and particularly hinges of the covered joint type in which the separate butts are composed of sheet metal; and the object of the invention is to provide a hinge of the class specified, the separate butts of which are composed of a heavy sheet of metal fashioned into the desired form to provide interengaging knuckles or pintle pin bearings on the separate butts; a further object being to provide one of the butts with a thin sheet metal hood portion, said butt being fashioned to receive said hood portion and being welded or otherwise secured thereto to form an integral part thereof, and said hood serving to cover or substantially cover the joint of the hinge; 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 plan view of a hinge made according to my invention with the separate butts extended and with part of the construction broken away.

Fig. 2 is a section on the line 2—2 of Fig. 1.

Fig. 3 is a section on the line 3—3 of Fig. 4 showing one of the butts of the hinge partially formed.

Fig. 4 is a face view of the hinge part shown in Fig. 3.

Fig. 5 is a sectional view through a hood plate which I employ.

Fig. 6 is a view similar to Fig. 3 but showing the hood plate attached.

Fig. 7 is a view similar to Fig. 6 but showing a modification; and,

Fig. 8 is a view similar to Fig. 1, but showing the modified form of construction illustrated in Fig. 7.

In the construction shown in Figs. 1 to 6 inclusive, I provide two hinge butts 10 and 11, each of said butts being fashioned from a single piece of sheet metal of sufficient thickness to give the required strength thereto, the butt 11 being fashioned, in the construction shown, to provide at one end thereof, two knuckles or pintle bearings 12 having recesses therebetween and at the opposite sides thereof to receive knuckles or pintle bearings 13 on the butt 10 of the hinge, said butt being fashioned as shown at 14 to give the desired curvature thereto and to extend the knuckles 13 thereof a predetermined distance from the attaching plate of the hinge butt, and a pintle pin 15 is adapted to be passed through the separate bearings 12 and 13 in coupling the butts 10 and 11 together.

In the construction of what are known as covered joint hinges of the class under consideration of sheet metal, it has heretofore been customary to fashion one of the butts of the hinge or that butt in which the hood or channel portion was formed of two sheet metal butt members, one secured to the other, in order to facilitate the formation of the hood portion in a comparatively thin metallic body, and further to provide the necessary strength and durability by the added and heavier metallic body. In order to obviate the necessity of making the said butt of two metallic bodies as above stated, I fashion the butt 10 from a heavy sheet of metal or a metal of sufficient thickness to give the required strength, and in sealing or covering the joint, I mounted upon the curved portion 14 and the knuckle or bearing portions 13, a thin sheet metal hood member 16 of substantially the cross sectional form shown in Fig. 5 of the drawing, the shape of the member 16 being in accordance with the shape of said end portion of the butt 10, and the member 16 is welded or otherwise secured to said butt to form an integral part thereof and in such manner as to render the member 16 substantially invisible when the hinge is completed and finished by nickel-plating, enamelling or by any other finishing material.

It is preferred that in mounting the member 16 in connection with the butt 10, that the curved end portion of said butt be offset as shown as 17 to a degree substantially equal to the thickness of the member 16, whereby a smooth and unobstructed outer face will result, and the member 16 may be secured to the butt 10 by welding at any number of places, for example, one of which is indicated at 18 in Fig. 6 of the drawing.

It will be understood that with the construction shown in Figs. 1 to 6 inclusive, the

member 16 merely covers the outer face of the butts 10 and 11 at the pivot or knuckle end portions thereof, and the free edge 19 of the member 16 constitutes a stop to limit the swinging movement of the butt 11 in one direction. In the construction shown in Figs. 7 and 8, I have shown a hood member 20 which is similar to the hood member 16 in all respects except that the hood member 20 as shown in the latter figures, is closed by top and bottom walls 21 of the general form shown in Fig. 8 of the drawing, which walls have apertures 22 through which the pintle pin 15 passes.

With the construction shown in Figs. 7 and 8, a more finished appearance to the pivot end of the butt 10 is provided, it being understood that the top and bottom plates of the hood 20 conform with the general shape of the knuckles 13 and adjacent the end portion of the butt when viewed edgewise.

With my improved construction, a hinge of the covered joint type having all of the fundamental characteristics of hinges of this class may be produced at a very nominal expense and at the same time resulting in a strong and durable construction, and while I have shown a specific shape or form of hinge butt and hood for forming a closure therefor, it will be understood that I am 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. In a hinge, one of the butts of which is composed of sheet metal, one end portion of which is curved and terminating in a plurality of pintle knuckles, a hood member fashioned from a comparatively thin sheet of metal adapted to be mounted upon the curved and knuckle end portion only of the butt to partially conceal said knuckles, and the hinge butt being fashioned to receive said member and to permit the same to lie flushly upon said butt to render the same invisible when a finished coating is applied to said butt.

2. A hinge butt fashioned from sheet metal and provided at one end portion with spaced knuckles, a sheet metal body formed independent of said butt and permanently secured thereto for partially encircling said knuckles, and said sheet metal body being imbedded in said hinge butt.

3. In a hinge, one of the butts of which is composed of sheet metal fashioned to form at one end portion thereof a pintle bearing, the pintle bearing end portion of said butt being offset inwardly, and means independent of and mounted upon the offset portion of the butt and secured thereto for partially concealing the joint of the hinge.

4. In a hinge, one of the butts of which is fashioned to form at one end portion thereof a pintle bearing, the exterior of the pintle bearing end portion of the butt being offset with relation to the exterior of the remainder of the butt, and a sheet metal hood member mounted upon the exterior of said offset portion of the butt, the outer face of which lies flushly with the exterior of the remainder of the butt, and said hood member serving to partially conceal the joint of the hinge.

5. A hinge butt provided at one end portion with a pintle bearing of less transverse dimensions than the corresponding dimensions of said butt to form recesses at the opposite sides thereof, and a sheet metal body formed independent of said butt and substantially arc-shaped in form in cross section, said body being secured to the bearing portion of the butt to partially enclose said recesses.

6. A hinge butt provided at one end portion with a pintle bearing of less transverse dimensions than the corresponding dimensions of said butt to form recesses at the opposite sides thereof, a sheet metal body formed independent of said butt and substantially arc-shaped in form in cross section, said body being secured to the bearing portion of the butt to partially enclose said recesses, and said body being countersunk in said butt whereby the outer face thereof lies flushly with the outer face of the butt.

7. A hinge butt provided at one end portion with a pintle bearing of less transverse dimensions than the corresponding dimensions of said butt to form recesses at the opposite sides thereof, a sheet metal body formed independent of said butt and substantially arc-shaped in form in cross section, said body being secured to the bearing portion of the butt to partially enclose said recesses, said body being countersunk in said butt whereby the outer face thereof lies flushly with the outer face of the butt, and said body being provided with top and bottom walls.

8. In a hinge, one of the butts of which is composed of sheet metal fashioned to form at one end portion thereof a pintle bearing, and a sheet metal hood member substantially arc-shaped in form in cross section mounted upon the exterior of the pintle bearing portion only of the butt with the upper and lower edges of said hood member flush with the corresponding edges of the butt.

9. In a hinge, one of the butts of which is composed of sheet metal fashioned to

form at one end portion thereof a pintle bearing, a sheet metal hood member substantially arc-shaped in form in cross section mounted upon the exterior of the pintle bearing portion only of the butt with the upper and lower edges of said hood member flush with the corresponding edges of the butt, and said hood member enclosing the pintle bearing to partially conceal the joint of the hinge.

10. In a hinge, one of the butts of which is composed of sheet metal fashioned to form at one end portion thereof a pintle bearing, a sheet metal hood member substantially arc-shaped in form in cross section mounted upon the exterior of the pintle bearing portion only of the butt with the upper and lower edges of said hood member flush with the corresponding edges of the butt, said hood member enclosing the pintle bearing to partially conceal the joint of the hinge, and the pintle bearing portion of the butt being offset to receive said hood member and whereby the outer face of the hood member will lie flush with the corresponding face of the butt.

In testimony that I claim the foregoing as my invention I have signed my name this 17th day of December, 1924.

JOSEPH SOSS.