March 10, 1942. J. SOSS 2,276,255

HINGE BUTT AND METHOD OF CONSTRUCTING THE SAME

Filed Oct. 1, 1938

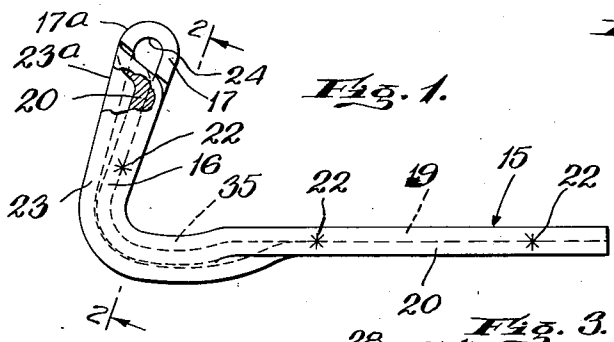


Fig. 1.

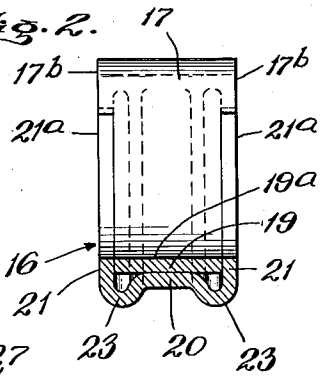


Fig. 2.

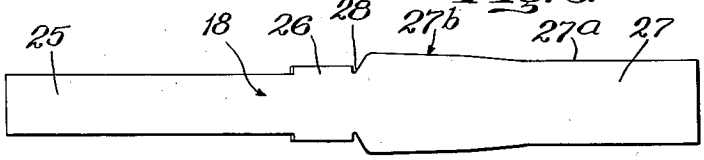


Fig. 3.

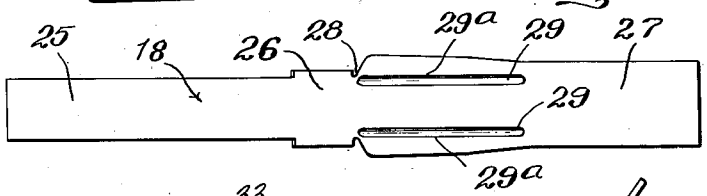


Fig. 4.

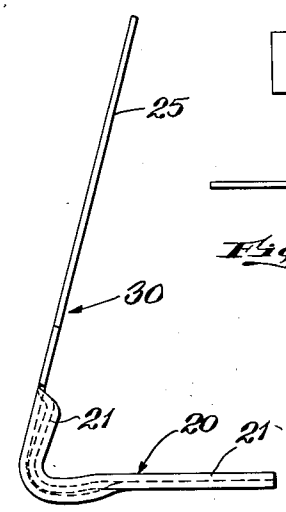


Fig. 5.

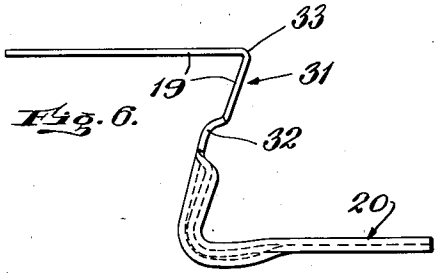


Fig. 6.

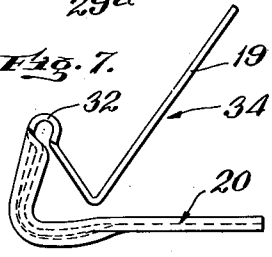


Fig. 7.

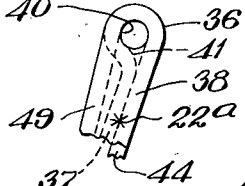


Fig. 8.

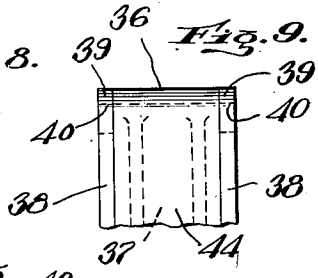


Fig. 9.

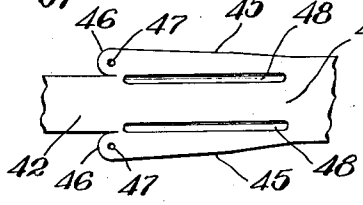


Fig. 10.

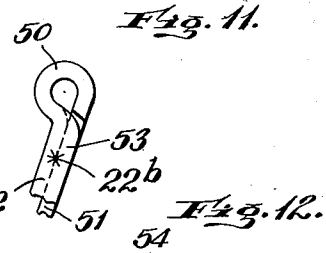


Fig. 11.

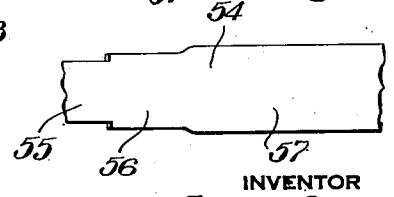


Fig. 12.

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HINGE BUTT AND METHOD OF CONSTRUCTING THE SAME

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Application October 1, 1938, Serial No. 232,767

16 Claims. (Cl. 29—11)

This invention relates to hinges and particularly to the construction of the hook arm of a concealed hinge of the general type and kind such as disclosed, for example, in prior Patent #2,062,840, granted Dec. 1, 1936; and the object of the present invention consists in simplifying the construction of a hinge butt of the type and kind under consideration while at the same time increasing the strength and rigidity thereof, and especially the strength and rigidity of the hook portion of the arm; a further object being to provide a hinge butt of the character described which is formed from a single elongated sheet metal blank fashioned in accordance with the method more fully 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 one form of hook arm hinge butt made according to my invention, shown partly in section to clearly indicate the wall structure thereof.

Fig. 2 is a view substantially on the line 2—2 of Fig. 1.

Fig. 3 is a view showing the original blank or workpiece from which the hinge butt of Figs. 1 and 2 is fashioned.

Figs. 4 and 5 are views showing steps in forming the outer wall of the hinge butt and the reinforced hook arm thereof.

Figs. 6 and 7 are views showing steps in the formation of the pintle bearing and the inner wall of the hinge butt.

Fig. 8 is a plan view of the pintle bearing of a hinge butt made according to my invention, showing a slightly modified form of construction.

Fig. 9 is a view showing a side elevation of the pintle bearing shown in Fig. 8.

Fig. 10 is a partial view similar to Fig. 4 showing the blank used to form the modified pintle bearing of Figs. 8 and 9.

Fig. 11 is a view similar to Fig. 8 showing a further modified form of pintle bearing; and,

Fig. 12 is a partial view of the blank used in forming the pintle bearing of Fig. 11.

While it is generally old in the art to construct hook arm hinge butts of the character described from sheet metal parts, and while certain types of butts of this kind have been formed from single strips of sheet metal, it is the purpose of my present invention to simplify the method of constructing a butt of the character defined while at the same time producing a butt having new structural features. One of the features of my invention resides in the arrangement of the cylindrical pintle bearing outwardly of the inner strip of the butt rather than inwardly thereof, which is the usual construction, and in forming outwardly pressed beads at the side edges of the butt which are continuous from the cylindrical bearing and extend around the hook-shaped portion of the butt and onto the attaching plate portion thereof to provide a very strong and non-yielding hook arm. Still further, my invention consists in arranging the side edges of the outer strip of the unitary butt construction above the corresponding edges of the inner strip portion to form top and bottom cover walls concealing the intersection between the inner and outer strips, and also to so form the cylindrical portion of the butt as to dispose the upper and lower surfaces thereof in alinement with the outer surfaces of said inturned cover flanges so as to adapt said hinge butt for close mounting within the companion box-shaped butt as commonly employed, with hinges of this type and kind. My invention also consists in an alternative of extending the flanges over upper and lower surfaces of the cylindrical portion of the butt to form top and bottom walls therefor and in perforating said top and bottom walls in alinement with the bore of the cylindrical portion of the butt so as to provide a continuous bearing for the pintle of the hinge throughout the entire width of said butt.

To illustrate one form of my invention I have shown in Figs. 1 and 2 a completely formed hook arm hinge butt having an attaching plate portion 15, a hook-shaped portion 16 and a pintle bearing portion 17. The hinge butt is fashioned from a unitary blank 18 of sheet metal folded back on itself at the pintle bearing portion 17 thereof to form an inner wall 19 and an outer wall 20 throughout the hook and attaching plate portions thereof. The inner wall 19 is of uniform width throughout its length while the outer wall 20 is wider than said inner wall and includes inturned flanges 21 overlapping and closely engaging the edges of the inner wall 19. The edges of the flanges 21 are flush with the exposed surface 19a of the inner wall 19, and the flanges 21 are welded at intervals as indicated at 22 to the edges of the inner wall 19 thereby permanently securing the inner and outer walls together. The outer wall 20 is provided throughout the hook-shaped portion 16 of said hinge butt with outwardly ex-

tending beads or corrugations 23 for reinforcing said hook-shaped portion.

The pintle bearing portion 17 of the hinge butt is cylindrical in form and extends outwardly of the main portion of the outer wall 20 as clearly seen in the cut away portion of Fig. 1. The beads or corrugations 23 are relatively wide adjacent the pintle bearing portion 17 and the outer surface 23a of said beads is in alinement with the outer surface 17a of said pintle bearing. It will also be apparent that the outer surfaces 21a of the flanges 21 are substantially equal in width to the outer diameter of the pintle bearing portion 17 and in alinement with the ends 17b thereof. The entire hinge butt therefore has a smooth regular contour substantially defined by the surfaces of the outer wall 20 thereof. The hole or aperture 24 in the pintle bearing portion 17 is substantially cylindrical in shape and is machined to provide a true cylindrical inner surface for the pintle bearing.

In forming the hinge butt above described from sheet metal, the blank 18 is first stamped from the sheet metal, said blank having a narrow end portion 25 for forming the inner wall 19 of the hinge butt, a slightly wider central portion 26 for forming the pintle bearing portion 17, and a still wider opposed end portion 27 for forming the outer wall 20 of the hinge butt. The part 27a of the end portion 27 which forms the outer wall of the attaching plate portion 15 is of uniform width while the part 27b thereof which forms the outer wall of the hook-shaped portion is slightly tapered, being widest adjacent the central portion 26 of the blank. Between the tapered part 27b and the central portion 26, the opposed edges of the blank have grooves or recesses 28 substantially in alinement with the edges of the narrow end portion 25 thereof.

The blank is then placed between suitable dies and elongated portions 29 of the sheet metal are forced outwardly to form the beads or corrugations 23 in the resulting hinge butt. It will be apparent that the outer edges 29a of the elongated portions 29 are substantially in alinement with the outer edges of the narrow end portion 25 of the blank. In the next operation, the blank is placed between suitable dies which bend the end portion 27 into the intermediate angular member 30 shown in Fig. 5 thereby forming the hook-shaped portion of the outer wall of the hinge butt. At the same time the edges of the end portion 27 are bent inwardly along lines substantially defined by the edges 29a of the elongated bead-forming portions 29 of the blank. The completely fashioned outer wall 20 of the hinge butt as a part of the intermediate member 30 is of channel cross-sectional form; and it will be apparent that the flanges 21 forming said channel are spaced apart a distance equal to the width of the narrow end portion 25 of the blank.

The member 30 is then placed between other dies which form a further intermediate member 31, as shown in Fig. 6, having a slightly curved portion 32 partially forming the pintle bearing 17 of the hinge butt. The narrow end portion 25 is now divided by a sharp bend 33 to form the attaching plate portion and the hook arm portion of the inner wall 19. The next intermediate step indicated by the member 34 of Fig. 7 shows the curved portion 32 almost completely fashioned into the pintle bearing 17. The inner wall 19 and the outer wall 20 of the hinge butt are now arranged in such angular relationship that a final stamping between suitable dies will bring the parts into the position shown in Fig. 1, giving to the inner wall 19 the smooth curve in the hook arm portion thereof as is indicated at 35. The formation of the hinge butt is then complete except for the welding of the inner and outer walls as at 22 to positively secure said walls together.

It will be apparent that the dimensions of the blank used must be carefully predetermined with respect to the thickness of the sheet metal in order that the flanges 21 will properly aline themselves in the stamping operations with the surface of the inner wall 19 and with the ends 17b of the pintle bearing portion 17.

In the construction shown in Figs. 8 to 10 inclusive, the pintle bearing portion 36 of the hinge butt is slightly modified. In this modification the outer wall 37 is provided with flanges 38 which extend onto and form end portions 39 of the pintle bearing 36 of the hinge butt. The end portions 39 of the pintle bearing having true circular or cylindrical apertures 40 in alinement with the substantially cylindrical pintle receiving aperture 41 of the bearing 36.

In fashioning this form of pintle bearing from sheet metal, the blank, as partially shown in Fig. 10, includes a narrow end portion 42 and a wide end portion 43. The narrow end portion is used in forming the inner wall 44 and pintle bearing portion 36 of the hinge butt while the wide end portion 43 is used in forming the outer wall 37 and flanges 38 of the hinge butt. The edges 45 of that part of the end portion 43 used in forming the hook arm of the hinge butt diverge slightly in the direction of the narrow end portion 42 of the blank and terminate in the semi-circular contour indicated at 46 to form the end portions 39 of the pintle bearing. Small circular holes 47 are provided centrally of the semi-circular edge contour 46 of the blank to facilitate the subsequent drilling or reaming of the circular apertures 40 in the hinge butt.

I have also shown in Fig. 10 elongated corrugations 48 which form the beaded reinforcing portions 49 of the hook arm. It will be apparent that the construction shown in Figs. 8 to 10 discloses a hinge butt of smooth external contour defined by the surface and edge portions of the outer wall 37 of the hinge butt.

In Figs. 11 and 12 I have shown a further modified form of construction in which the beaded reinforcing portions of the hook arm are dispensed with. In this construction, the pintle bearing portion 50 extends outwardly from the inner wall 51 and beyond the outer wall 52 of the hinge butt as will clearly be seen in Fig. 11. The outer wall 52 is provided with flanges 53 throughout the length thereof overlapping the inner wall 51 to form upper and lower edge portions of the hinge butt in alinement with the ends of the pintle bearing portion 50. This modified hinge butt is made from a blank 54 having a narrow end portion 55 for forming the inner wall 51 of the hinge butt, a central slightly wider portion 56 for forming the pintle bearing portion 50, and a wide end portion 57 for forming the outer wall 52 and the flanges 53 of the hinge butt.

In this construction as well as in the construction shown in Figs. 8 to 10 inclusive, the flanges of the outer wall are welded to the edges of the inner wall as at 22a, 22b, in permanently securing said walls together to form the hinge butt.

It will be understood that I am not limited to the construction of the particular form of hinge here shown and described but that my invention relates to the formation of hook arm hinge butts generally, and more specifically to the formation of this class of hinge butt from relatively lightweight inexpensive metal, and so fashioning the metal as to form channeled and beaded portions which produce a very strong and rigid wall structure in the resulting hinge butt. The attaching plate portion of my hinge butt is secured to a suitable support in the conventional manner; and the aperture of the pintle bearing portion is of course machined to fit the particular size pintle it is desired to employ. It will also be apparent that any suitable material may be used in forming hinge butts according to my invention depending upon the particular use for which the hinge butt is intended.

It will also appear that my improved hinge butt provides upper and lower flat smooth surfaces, especially at the hook-end portion thereof to seat snugly and firmly within the companion butt of the hinge which is usually in the form of a box-shaped member countersunk in a suitable support. It will of course be understood that the various forms of hinge butts here illustrated will be fashioned by suitable dies to accurately determine the spacing between upper and lower surfaces of the butt, and with the construction shown in Figs. 8 to 10 inclusive, the top and bottom walls which finish the upper and lower edges of the pintle bearing of the butt, may be welded in position to form a substantially integral structure throughout the entire bearing portion of the butt.

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

1. In a hinge of the character described, a hinge butt comprising a hook end portion and an attaching plate portion, said butt being fashioned from a single elongated strip of metal folded centrally to form inner and outer plates joined at the free end of said hook end portion in a cylindrical bearing, said hook end portion and attaching plate portion being each composed of said inner and outer plates arranged in abutting relation to each other and secured together at predetermined intervals, said pintle bearing projecting outwardly in the direction of the outer plate, upper and lower edges of the outer plate having inturned flanges arranged upon and concealing corresponding edges of the inner plate throughout the full length of said plate, the upper and lower surfaces of the cylindrical bearing being in alinement with the outer surfaces of said flanges, the hook end portion of said outer wall having a plurality of outwardly extending beads or corrugations adjacent the flanged edge portions thereof for reinforcing the hook end and part of the attaching plate of said hinge butt, and the flanges of said hook end of the outer wall being wider than the flanges of said attaching plate portion and the edges thereof being in alinement with the inner surface of the hook end of said inner wall.

2. In a hinge of the character described, a hinge butt comprising a hook end portion and an attaching plate portion, said butt being fashioned from a single elongated strip of metal folded centrally to form inner and outer plates joined at the free end of said hook end portion in a cylindrical bearing, said hook end portion and attaching plate portion being each composed of said inner and outer plates arranged in abutting relation to each other and secured together at predetermined intervals, said pintle bearing projecting outwardly in the direction of the outer plate, upper and lower edges of the outer plate having inturned flanges arranged upon and concealing corresponding edges of the inner plate throughout the full length of said plate, the hook end portion of said outer wall having a plurality of outwardly extending beads or corrugations adjacent the flanged edge portions thereof for reinforcing the hook end of said hinge butt, the flanges of said hook end of the outer wall being wider than the flanges of said attaching plate portion and the edges thereof being in alinement with the inner surface of the hook end of said inner wall, and the upper and lower surfaces of said cylindrical bearing being formed from extensions of said flanges and conforming to the contour of said bearing.

3. In a hinge of the class described a blank from which a butt of the hinge is formed to provide in said butt a hook arm and attaching plate portion of two wall thickness throughout the length thereof and joined at the free end of the hook arm in a cylindrical bearing, said blank comprising an elongated strip having a narrow end portion and a wider end portion, said narrow and wide end portions being joined by an intermediate pintle bearing forming portion, and the side edges of the wide end portion of the blank being of greater width adjacent the intermediate pintle bearing forming portion than at the free end of said wide end portion.

4. In a hinge of the class described a blank from which a butt of the hinge is formed to provide in said butt a hook arm and attaching plate portion of two wall thickness throughout the length thereof and joined at the free end of the hook arm in a cylindrical bearing, said blank comprising an elongated strip having a narrow end portion and a wider end portion, said narrow and wide end portions being joined by an intermediate pintle bearing forming portion, the side edges of the wide end portion of the blank being of greater width adjacent the intermediate pintle bearing forming portion than at the free end of said wide end portion, and said intermediate pintle bearing forming portion being of greater width than the narrow end portion of the blank but of less width than the wider end portion thereof.

5. In a hinge of the closs described a blank from which a butt of the hinge is formed to provide in said butt a hook arm and attaching plate portion of two wall thickness throughout the length thereof and joined at the free end of the hook arm in a cylindrical bearing, said blank comprising an elongated strip having a narrow end portion and a wider end portion, said narrow and wide end portions being joined by an intermediate pintle bearing forming portion, the side edges of the wide end portion of the blank being of greater width adjacent the intermediate pintle bearing forming portion than at the free end of said wide end portion, and the end of the wider end portion of the blank where it joins the intermediate pintle bearing forming portion having projecting apertured members overlying said intermediate portion.

6. The herein described method of forming hook arm hinge butts of the character described which consists in first forming an elongated blank having a narrow end portion and a wider end portion with a portion therebetween for

forming a cylindrical pintle bearing, then forming outwardly projecting beads in the wider end portion adjacent said bearing forming portion and in alinement with the side edges of said narrow end portion, then shaping the wider end portion of the blank to form inturned top and bottom flanges and a hook formation adjacent the bearing forming portion of the blank, then partially forming the pintle bearing at the central portion of the blank and bending the narrow end portion to seat within the hook of the wider end portion, then forcing the formed narrower end portion upon the wider end portion and within the flanges of said wider end portion and completing the formation of a cylindrical pintle bearing, and then securing the parts thus formed firmly together to form the resulting hook arm butt of double wall thickness throughout the major portion of the length thereof.

7. The herein described method of forming hook arm hinge butts of the character described which consists in first forming an elongated blank having a narrow end portion and a wider end portion with a portion therebetween for forming a cylindrical pintle bearing, said bearing forming portion being wider than the narrow end portion and narrower than the wide end portion of said blank, then forming outwardly projecting beads in the wider end portion adjacent said bearing forming portion and in alinement with the side edges of said narrow end portion, then shaping the wider end portion of the blank to form inturned top and bottom flanges and a hook formation adjacent the bearing forming portion of the blank, then partially forming the pintle bearing at the central portion of the blank and bending the narrow end portion to seat within the hook of the wider end portion, then forcing the formed narrower end portion upon the wider end portion and within the flanges of said wider end portion and completing the formation of said cylindrical pintle bearing, then securing the parts thus formed firmly together to form the resulting hook arm butt of double wall thickness throughout the major portion of the length thereof, and shaping the butt thus formed to provide outer surfaces on said flanges which are flush with the surfaces of the upper and lower end of said bearing.

8. The herein described method of forming hook arm hinge butts of the character described which consists in first forming an elongated blank having a narrow end portion and a wider end portion with a portion therebetween for forming a cylindrical pintle bearing, said bearing forming portion including a part of said narrow end portion and substantially semicircular apertured projections of said wider end portion, then forming outwardly projecting beads in the wider end portion adjacent said bearing forming portion and in alinement with the side edges of said narrow end portion, then shaping the wider end portion of the blank to form inturned top and bottom flanges and a hook formation adjacent the bearing forming portion of the blank, then partially forming the pintle bearing at the central portion of the blank and bending the narrow end portion to seat within the hook of the wider end portion, then forcing the formed narrower end portion upon the wider end portion and within the flanges of said wider end portion and completing the formation of said cylindrical pintle bearing, said semicircular projections of said wider end portion forming the ends of said pintle bearing, then securing the parts thus formed firmly together to form the resulting hook arm butt of double wall thickness throughout the major portion of the length thereof, and then shaping the pintle bearing and said semicircular projections to form a pintle receiving aperture of predetermined diameter in said bearing and projections.

9. The herein described method of forming hook arm hinge butts of the character described which consists in first forming an elongated blank having a narrow end portion and a wider end portion with a pintle bearing forming portion therebetween, then forming outwardly projecting beads in the wider end portion adjacent said bearing forming portion and in alinement with the side edges of said narrow end portion, then shaping the wider end portion of the blank to form inturned top and bottom flanges and a hook formation adjacent the bearing forming portion of the blank, then putting a slight curve in the bearing forming portion of the blank and bending the narrower end portion into an angular shape adapted to seat within the hook arm of said wider end portion, then partially forming the cylindrical pintle bearing and bending the narrow end portion of the blank into position to be forced upon the wider end portion, then forcing said narrow end portion within the flanges of said wider end portion and curving the hook portion thereof to correspond with the curve of said wider hook portion, and then securing the parts thus formed firmly together to form the resulting hook arm butt of double wall thickness throughout the major portion of the length thereof.

10. In a hinge of the character described, a hinge butt comprising a hook end portion and an elongated and straight attaching plate portion, the width of the attaching plate portion throughout its length being the same as said hook end portion, said butt being fashioned from a single elongated strip of metal folded centrally to form inner and outer plates joined at the free end of said hook end portion in a cylindrical bearing, said inner and outer plates of said hook end portion and attaching plate portion being arranged in abutting relation to each other and secured together at predetermined intervals, the major portion of the hook end extending angularly at the inner plate side of said attaching plate, said pintle bearing projecting outwardly in the direction of the outer plate of said hook end and disposed entirely beyond the inner surface of said inner plate, upper and lower edges of the outer plate having inturned flanges arranged upon and concealing the corresponding edges of the inner plate throughout the full length of said plate, and the edges of said flanges being in alinement with the inner surface of said inner plate.

11. In a hinge of the character described, a hinge butt comprising a hook end portion and an elongated and straight attaching plate portion the width of the attaching plate portion throughout its length being the same as said hook end portion, said butt being fashioned from a single elongated strip of metal folded centrally to form inner and outer plates joined at the free end of said hook end portion in a cylindrical bearing, said inner and outer plates of said hook end portion and attaching plate portion being arranged in abutting relation to each other and secured together at predetermined intervals, the major portion of the hook end extending angularly at the inner plate side of said attaching plate, said pintle bearing projecting outwardly in

the direction of the outer plate of said hook end and disposed entirely beyond the inner surface of said inner plate, upper and lower edges of the outer plate having inturned flanges arranged upon and concealing the corresponding edges of the inner plate throughout the full length of said plate, and the upper and lower surfaces of the cylindrical bearing being in alinement with the outer surfaces of said flanges.

12. In a hinge of the character described, a hinge butt comprising a hook end portion and an elongated and straight attaching plate portion, the width of the attaching plate portion throughout its length being the same as said hook end portion, said butt being fashioned from a single elongated strip of metal folded centrally to form inner and outer plates joined at the free end of said hook end portion in a cylindrical bearing, said inner and outer plates of said hook end portion and attaching plate portion being arranged in abutting relation to each other and secured together at predetermined intervals, the major portion of the hook end extending angularly at the inner plate side of said attaching plate, said pintle bearing projecting outwardly in the direction of the outer plate of said hook end and disposed entirely beyond the inner surface of said inner plate, upper and lower edges of the outer plate having inturned flanges arranged upon and concealing the corresponding edges of the inner plate throughout the full length of said plate, the upper and lower surfaces of the cylindrical bearing being in alinement with the outer surfaces of said flanges, and the hook end portion only of said butt having a plurality of outwardly extending beads or corrugations in the outer wall thereof adjacent the flanged edge portion thereof for reinforcing said hook end of the butt.

13. A hook arm hinge butt of the class described having a hook end portion and an elongated and straight attaching plate portion, the width of the attaching plate portion throughout its length being the same as said hook end portion, said butt comprising a single strip of metal folded centrally to form a cylindrical bearing and to dispose the end portions of the strip one upon the other in forming inner and outer walls of the butt, the outer wall being channeled throughout its length and the inner wall being arranged within the channel of the outer wall and secured thereto, the bearing end portion of the butt being offset angularly in the direction of the inner wall in forming a hook end on said butt and to dispose the hook end substantially entirely at the inner wall side of the butt, and the cylindrical bearing at the end of said hook portion being disposed entirely beyond the inner surface of the inner wall of said hook end.

14. A hook arm hinge butt of the class described having a hook end portion and an elongated and straight attaching plate portion, the width of the attaching plate portion throughout its length being the same as said hook end portion, said butt comprising a single strip of metal folded centrally to form a cylindrical bearing and to dispose the end portions of the strip one upon the other in forming inner and outer walls of the butt, the outer wall being channeled throughout its length and the inner wall being arranged within the channel of the outer wall and secured thereto, the bearing end portion of the butt being offset angularly in the direction of the inner wall in forming a hook end on said butt and to dispose the hook end substantially entirely at the inner wall side of the butt, the cylindrical bearing at the end of said hook portion being disposed entirely beyond the inner surface of the inner wall of said hook end, the channeled outer wall having flanges at upper and lower edges thereof overlying the corresponding edges of said inner wall, the flanges at the hook end portion of the butt being greater in width than at the attaching plate portion of the butt and extending beyond the outer surface of the outer plate of said hook end, the length of the pintle bearing being equal to the width of the inner wall, and said flanges having apertured portions arranged upon upper and lower edges of said pintle bearing.

15. The herein described method of forming hook arm hinge butts of the character described which consists in providing an elongated blank having a narrow end portion and a wider end portion with a central pintle bearing forming portion, first shaping the wider end portion of the blank to form inturned top and bottom flanges and adjacent the pintle bearing portion, a hook formation extending in the direction of said flanges, then partially forming the pintle bearing and shaping the narrow end portion of the blank adjacent the bearing to form the hook portion therein, then completing the formation of the bearing and arranging the hook of the narrow end portion within the hook of the wide end portion with said narrow end portion seating within the flanges of the wide end portion, and then securing the parts thus formed firmly together to form the resulting hinge butt comprising an attaching plate portion and hook end portion of the same width throughout the length of the butt and of double wall thickness through the major portion of the length thereof and with the hook end extending substantially in its entirety to one side of said attaching plate portion.

16. In a hinge of the character described, a hinge butt comprising a hook end portion and an attaching plate portion, said butt being fashioned from a single elongated strip of metal folded centrally to form inner and outer plates joined at the free end of said hook end portion in a cylindrical bearing, said hook end portion and attaching plate portion being each composed of said inner and outer plates arranged in abutting relation to each other and secured together at predetermined intervals, said pintle bearing projecting outwardly in the direction of the outer plate, upper and lower edges of the outer plate having inturned flanges arranged upon and concealing corresponding edges of the inner plate throughout the full length of said plate, the upper and lower surfaces of the cylindrical bearing being in alinement with the outer surfaces of said flanges and being formed at least in part by said flanges, the hook end portion of said outer wall having a plurality of outwardly extending beads or corrugations adjacent the flanged edge portions thereof for reinforcing the hook end and part of the attaching plate of said hinge butt, and the flanges of said hook end of the outer wall being wider than the flanges of said attaching plate portion and the edges thereof being in alinement with the inner surface of the hook end of said inner wall.

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