C. B. PARSONS.
CONCEALED HINGE.
APPLICATION FILED OCT. 11, 1913.

1,094,010. Patented Apr. 21, 1914.

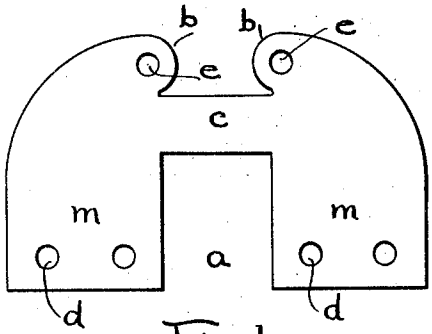


Fig. 1

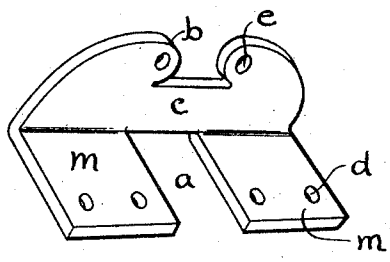


Fig. 2

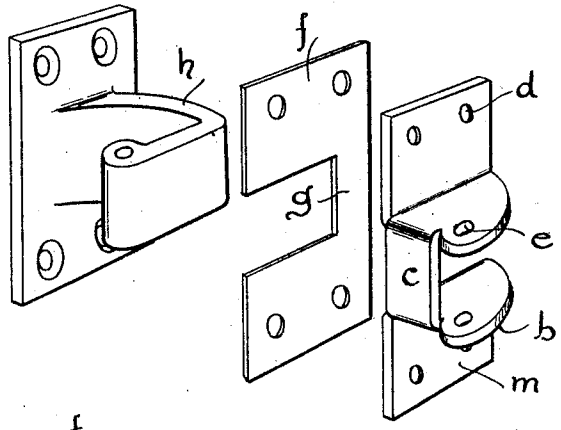


Fig. 3

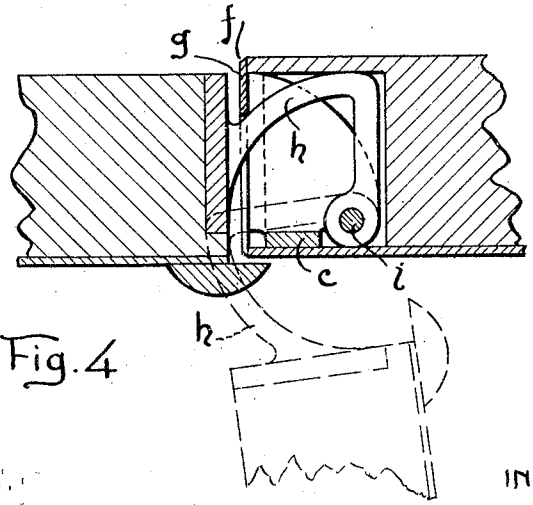


Fig. 4

WITNESSES:
Robert N. Van Deventer
Agnes M. Hopkins

INVENTOR
Carl B. Parsons
BY
Ralzemond A. Parker
ATTORNEY

UNITED STATES PATENT OFFICE.

CARL B. PARSONS, OF DETROIT, MICHIGAN.

CONCEALED HINGE.

1,094,010. Specification of Letters Patent. Patented Apr. 21, 1914.

Application filed October 11, 1913. Serial No. 794,569.

To all whom it may concern:

Be it known that I, CARL B. PARSONS, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Concealed Hinges, and declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to concealed hinges and has for its object a stamped hinge case that is cheap to manufacture and requires a minimum cut in the door post.

In the drawing, Figure 1, is a view of the blank. Fig. 2, is a perspective of the blank after it has been given the first fold. Fig. 3, is a perspective of the blank after it has been given the second and final fold, of the keeper-plate and of the hinge arm. Fig. 4, is a section of the assembled concealed hinge, showing in dotted lines the extreme outward swing of the door.

A sheet of stamped metal is cut with an opening *a* at one side and an opening at the opposite side forming two ears *b*, *b*. These openings are separated by a strap *c*. The outside edge of the blank sweeps around in a long curve from the ears *b* to the opposite side of the blank. The blank is then folded, as shown in Fig. 2, along the inside edge of the strap *c*. However before folding, the blank is perforated at *d*, *d*, to provide for the passage of the screws; also the ears are perforated as at *e*, *e* to hold the hinge pin. The blank is next bent at both ends of the strap, resulting in the mortise casing shown in the right of Fig. 3. A keeper-plate *f*, slightly larger than the face plates *m* of the mortise casing, is used to fit over the face of the mortise casing to cover up the rough edges left in cutting out the mortise. This keeper-plate is also provided with a connecting strap *g* which serves to complete the four sides of the mortise opening. The hinge arm *h* fits into the mortise casing and is pivotally mounted therein by the hinge-pin *i* passing through the perforations *e* and the central perforation of the knuckle of the hinge arm.

I am aware that stamped mortise casings have been used heretofore in connection with concealed hinges, but I do not believe that one has ever been made in the way that mine has; that is to say, folded so as to provide the strap *c* that acts as a door stop. It has been customary to fold them so as to form the face plate, the top lining of the mortise, the back lining of the mortise, the bottom lining of the mortise and the second face plate. Small lugs have been turned over from the sides of the top lining and bottom lining of the mortise to form the door stop. My invention provides a rigid connecting strap which is superior to such lugs inasmuch as it forms a rigid post that cannot be bent or displaced as the lugs may. This form of construction brings the door stop at the very extreme side of the mortise casing which is not possible where a post has to be inserted between the upper and lower lining of the mortise, as is done in a number of constructions, or when a five-walled mortise casing is used. This placing of the door stop at the extreme side of the hinge casing allows the location of the hinge pin *i* as far to the side as possible without interfering with the extent of the opening of the door. In fact in the construction I have shown the door will open at a greater angle than ninety degrees—approximately one hundred degrees (see Fig. 4), yet the hinge pin is located approximately in the plane of the door stop, in fact as near as can be considering the size of the knuckle of the hinge arm. This construction of course lessens the width of the hinge casing, for it is obvious from examining Fig. 4 that the farther over the pin *i* is set the wider the hinge casing will have to be. This is quite important for the reason that in the body construction of the cheaper automobiles there is employed a rather narrow door post and it is advantageous to cut out as little as possible so as not to lessen the strength of the door post, and where the door post is extremely narrow a mortise casing of small width is required.

What I claim is:

1. The combination of a mortise casing constructed of folded sheet metal forming an upper and lower face plate, an upper and lower mortise lining, and a strap narrower than the upper and lower mortise lining connecting these two members at one side, the said upper and lower mortise linings each being provided with an extending perforated ear that projects around to the rear of the side strap and to a position where its outer face is substantially flush with

the face of the strap, a hinge-arm, and a pin passing through the end of the hinge-arm and secured in the perforations of the said ears, substantially as described.

2. The combination of a stamping forming an upper and lower face plate, an upper and lower mortise lining and a connecting strap at one side between the upper and lower mortise lining, a keeper-plate fitting over the outside edges of the face portions and having a strap portion to complete the lining of the mortise opening and a hinge arm pivotally supported by the said stamping, substantially as described.

In testimony whereof, I sign this specification in the presence of two witnesses.

CARL B. PARSONS.

Witnesses:

MARIETTA E. RUDD,

STUART C. BARNES.