

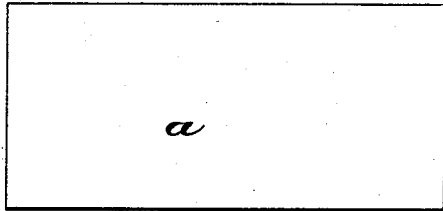
(No Model.)

W. B. ARNOLD.  
HINGE.

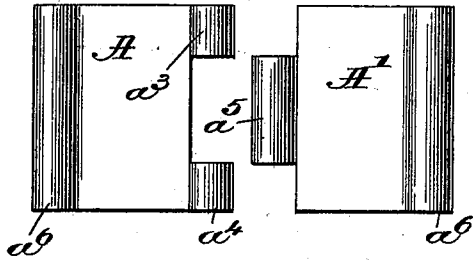
No. 590,873.

Patented Sept. 28, 1897.

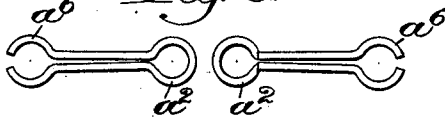
*Fig. 1.*



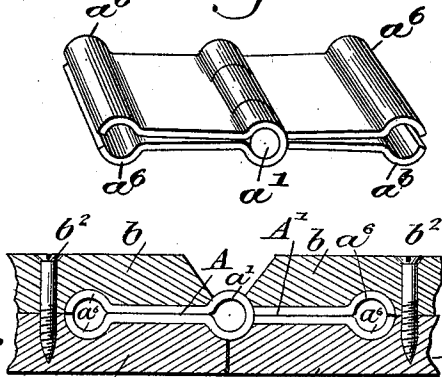
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses:

Inventor:

A. C. Harmon, <sup>b^2</sup> Fig. 5. <sup>b^2</sup> William B. Arnold.

Thomas J. Drummond,

by Crosby & Gregory  
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# UNITED STATES PATENT OFFICE.

WILLIAM B. ARNOLD, OF ABINGTON, MASSACHUSETTS.

## HINGE.

SPECIFICATION forming part of Letters Patent No. 590,873, dated September 28, 1897.

Original application filed June 22, 1896, Serial No. 596,367. Divided and this application filed May 10, 1897. Serial No. 635,764. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM B. ARNOLD, of North Abington, in the county Plymouth and State of Massachusetts, have invented an  
5 Improvement in Hinges, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

My invention is an improved hinge, being a  
10 division of my application, Serial No. 596,367, filed June 22, 1896, and has for its object the provision of a hinge which, while inexpensive in manufacture, shall at the same time  
15 possess superior qualities of strength and especially resistance to longitudinal strains.

To this end my invention comprises a hinge made in two parts, constituting, respectively, the leaves thereof, each being doubled over  
20 on itself and interlocked about the hinge-pintle, the opposite portions of each leaf being pinched together adjacent the pintle and thence extended outwardly and the leaves provided remote from the pintle with enlargements for the retention thereof in the wood  
25 or material in which it may be embedded.

The details of construction and further advantages of my invention will be more particularly set forth in the following description, and the invention will be defined in the accompanying claim, reference being had to the  
30 drawings forming a part of this specification and illustrative of a preferred embodiment of my invention.

In the drawings, Figure 1 is a plan view of  
35 one of the hinge-blanks. Fig. 2 is a similar view showing the leaves of the hinge ready to be joined to form the completed hinge. Fig. 3 is a side elevation thereof. Fig. 4 is a perspective view of the completed hinge.  
40 Fig. 5 is a vertical longitudinal section showing my improved hinge in operative position securing two adjacent members.

In the formation of my hinge I take two blanks  $a$ , one of which is shown in Fig. 1,  
45 and bend each blank back upon itself at its middle, so that the folded-over middle portion of the blank will constitute a cylindrical portion  $a^2$ , as is indicated in Fig. 3, to receive the hinge-pintle  $a'$ .

50 The opposite cylindrical portions  $a^2$  of the leaves  $A A'$  are respectively cut away, so as

to overlap or interlock and receive the pintle  $a'$ , being herein shown as cut away so as to provide two end portions or ears  $a^3 a^4$  on one leaf and one intermediate portion or ear  $a^5$   
55 on the other leaf, snugly overlapping when joined together in a complete hinge, as clearly shown in Fig. 4. The leaves beyond their cylindrical ends or ears are pinched together  
60 tightly adjacent the pintle and lateral enlargements or projections formed thereon, these enlargements being herein shown as at the outer free ends of the leaves, where the  
65 latter are shown oppositely and outwardly curved or rolled at  $a^6$  to cooperate and form locking enlargements, preferably in cylindrical form, to be driven or embedded edge-  
wise transversely to the length of the hinge in the material connected by the hinge, there-  
70 by preventing the hinge from drawing out of the said material.

The operation of my improved hinge will be clearly understood by reference to Fig. 5, where the hinge is shown as securing two adjacent portions, each made up of two boards  
75 or plates  $b b'$ , secured together by screws  $b^2$ , each board or plate being grooved on its inner face to receive the enlargements  $a^6$  of the hinge and recessed to receive the leaves  $A A'$ . The hinge is secured in place either by being  
80 put in proper position on the two boards  $b b'$  and then having the top boards  $b b'$  laid thereon and fastened to the under boards by the screws  $b^2$ , or in case the boards  $b b'$  have  
85 been already secured together, or in case each leaf of the hinge were to be secured in one solid piece, the boards or solid piece would be bored and recessed to provide the  
90 required cavities to receive the leaf and its enlargements  $a^6$ , and then the hinge would be driven in edgewise transversely to its length into the recess.

It will be evident from the above description that the enlargements  $a^6$  not only hold  
95 the parts together, offering strong resistance to longitudinal strains, but also serve to hold the hinge in place without requiring any usual screws to be passed through the leaves of the hinge.

The metal or material of which the hinge  
100 is made will preferably be of such character as to cause the portions  $a^6$  to spring some-

what away from each other, as shown in Figs. 3 and 4, so that the cylindrical free ends may be pinched together tightly before being driven into the wood, and will then tend to spring apart and hold more firmly in their places.

This hinge is exceedingly strong, resisting strains in every direction, the several parts thereof sustaining each other and giving a bracing and trussing effect and resistance, which is of great practical value.

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

As an article of manufacture, a hinge having two leaves intermediately bent back on

themselves, and overlapped around a central hinge-pintle, the opposite portions of each of said leaves being pinched together adjacent the pintle and said leaves having lateral enlargements formed in said pinched-together portions, removed from the pintle, and projecting outwardly from the leaves, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM B. ARNOLD.

Witnesses:

ARTHUR L. EVERSON,  
N. A. JUDKINS.