

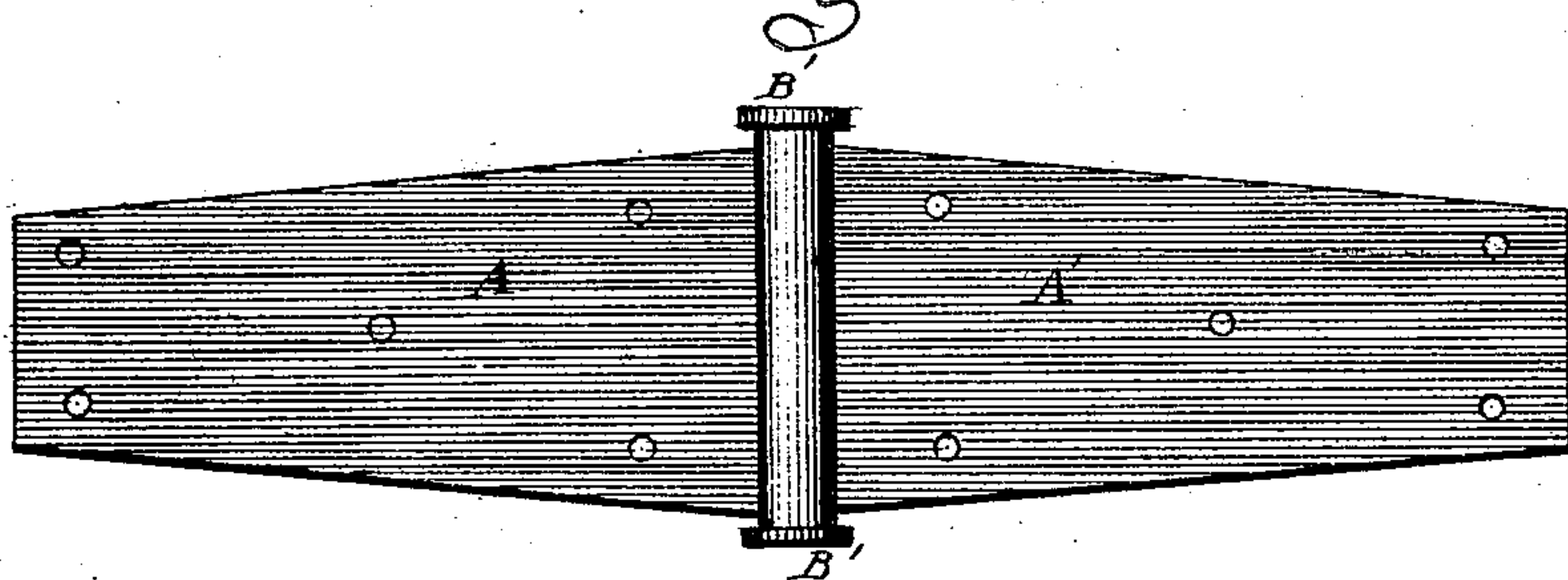
*D. W. Long,*

*Hinge.*

*No. 103758.*

*Patented May 31. 1870.*

**Fig: 1**



**Fig: 2**



*Attest*  
*C. H. Clausen*  
*A. E. J. Kils*

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*Attys*

# United States Patent Office.

DAVID W. LONG, OF PARKERSBURG, WEST VIRGINIA.

*Letters Patent No. 103,758, dated May 31, 1870.*

## IMPROVEMENT IN HINGES.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern :*

Be it known that I, DAVID W. LONG, of Parkersburg, in the county of Wood and State of West Virginia, have invented certain Improvements in Hinges; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawing making part of this specification, in which—

Figure 1 is a plan view of my improved hinge.

Figure 2 is a side elevation.

Corresponding letters refer to corresponding parts in the several figures.

This invention relates to an improvement in hinges and butts; and

It consists in the method of uniting the parts thereof, as will be more fully described hereinafter.

The usual method of constructing articles of the kind referred to is by cutting away portions of each, for the purpose of allowing the portions which are left to enter the space formed in the other, in order that the pin which unites the two parts may pass through the holes formed for its reception in each of the parts, and thus unite them together; and also in order that the weight of the door or gate may rest upon the shoulder formed upon the one which is secured to the post or other support.

The plan above referred to is found to be objectionable, because it weakens the butt or hinge to a considerable extent; and further, because, when made of wrought metal, it necessitates the cutting away of such portions and the accurate fitting of the parts to each other, which operation is attended with great expense.

My object in the present case is to remove these objections.

To enable those skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A in the drawing refers to one plate or portion of a hinge, which may be of any length and width desired, the thickness being such in all cases to give the required strength.

This plate may have the form shown in fig. 1, or any other which will adapt it to the position in which it is to be used, it being furnished with holes for the

reception of screws, with which to secure it to a door or other device.

The end of this plate which is to be connected with the other plate for the purpose of forming a hinge or butt is to be bent into substantially the form shown in fig. 2, or so as to form the male portion of a socket which revolves or partially revolves around the female portion formed upon the plate A', which is in all respects like the one above described, except that it has upon its inner end a socket formed by bending its end so that it shall form a hole or aperture for the reception of the pin or screw which secures the two portions above described together, while the outside of said socket is to be of such form and dimensions as to permit it to move freely within the male socket upon plate A.

B refers to a pin or screw which passes through the aperture formed in the end of plate A', and which has upon its ends, and just outside of the edges of the plates, collars B' B', which are to be secured to such pin by riveting, or in some other suitable manner, so that, when the female portion of the socket has been pushed within the male portion, and the pin passed through the aperture in A', these collars may be secured to such pin, and thus the weight of the door or gate will be sustained upon the lower collar, it being prevented from moving out of place by the pin B and the collar B' which is upon its upper end, which rests upon the upper edge of the fixed portion of the hinge.

Having thus described my invention,

What I claim, and desire to secure by Letters Patent, is—

A butt or hinge, one of the parts of which has a male and the other a female socket, which extend across the entire width of the same, the parts being held in position by a pintle which passes through the female socket, and has a collar upon both of its ends to support the weight of the doors or other device to be hung, substantially as and for the purpose set forth.

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

Witnesses:

T. L. MAURICE,  
WM. S. GRIER.

DAVID W. LONG.