

(No Model.)

W. D. RICHARDSON.

HOOP FASTENER.

No. 308,280.

Patented Nov. 18, 1884.

Fig. 1.

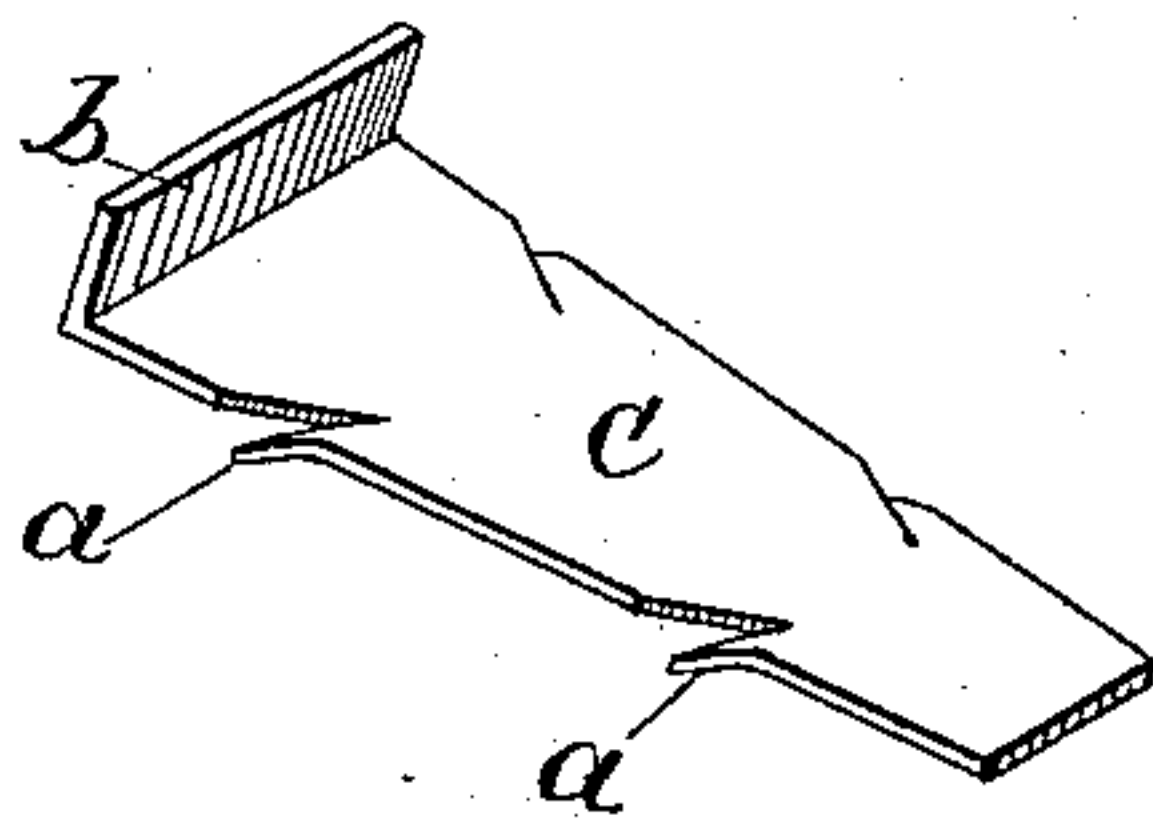


Fig. 2.

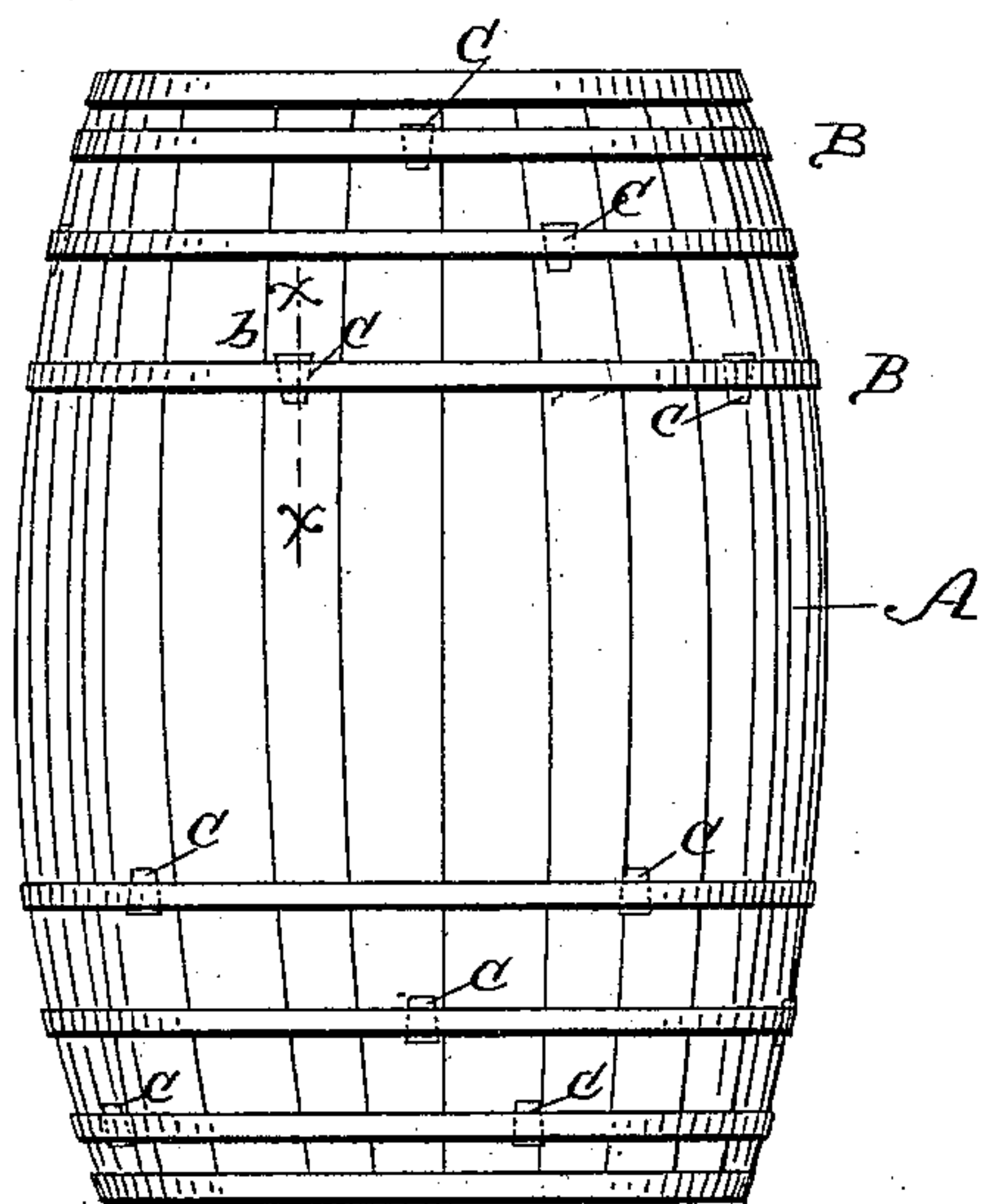
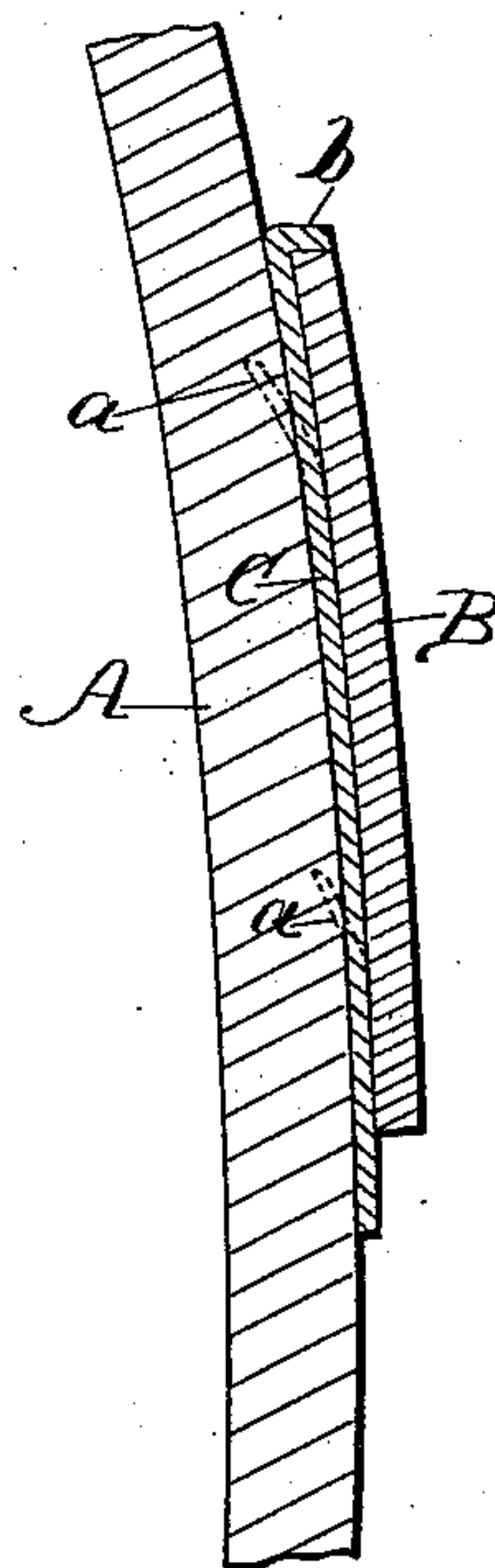


Fig. 3.



WITNESSES:

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HOOP-FASTENER.

SPECIFICATION forming part of Letters Patent No. 308,280, dated November 18, 1884.

Application filed August 30, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM D. RICHARDSON, a citizen of the United States, residing at Springfield, in the county of Sangamon and State of Illinois, have invented certain new and useful Improvements in Hoop-Fasteners for Buckets, Barrels, &c., of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, in which—

Figure 1 represents my invention by a perspective view. Fig. 2 represents my invention applied to a barrel in elevation. Fig. 3 represents a transverse section of my invention applied to a fragment of a barrel-stave and hoop, which are also in section.

The object of my invention is to provide a means for securing the hoops of barrels, casks, tanks, tubs, buckets, &c., against dislodgment from shrinkage when left without water for any length of time. This loosening of the hoops and the collapse of the receptacle is a very common incident of dry weather or disuse of the article, and involves at all times a serious inconvenience, resulting for the most part in either the total loss of the receptacle or the necessity of sending for a cooper.

My invention is designed to obviate this difficulty; and to that end it consists in a flat metal key having converging rows of projecting barbs on one side and a flange or lip on the other side at the end, which key is driven between the hoop and the barrel-staves in direction from the end of the barrel toward the middle, with its barbs in contact with and burying in the wood, and the end flange turned outwardly and forming a shoulder, against which the hoops bear, and by which they are precluded from coming off.

In the drawings, A represents a barrel whose hoops B are fastened in place by the key or fastener C. This key or fastener C is made of thin metal of about uniform thickness and slightly tapered form. This fastener has its edges cut inclinedly with a straight incision to form barbs *a*, that are bent inwardly and point up toward the larger end, which larger end is bent outwardly to form a flange or lip, *b*. This key or fastener is simply driven between the hoop and the barrel from its end toward the middle, and when in place nothing

but the edge of the flange is visible, which holds the hoop to place. With this fastener the more the hoop is strained toward the end of the barrel the tighter the barbs of the fastener hold to the barrel. The object of making the edges of the fastener of a tapered form is to throw the lower barbs out of the parallel alignment of the barbs above, so that all the barbs shall have a separate or independent hold on the wood, thus giving the fastener greater holding power.

I am aware that a metal-fastener has been formed with outturned ends to hold the hoop and inturned barbs or spurs on its parallel sides to bury in the wood, as shown in the patent to Barnes, No. 303,253, and I do not claim this, broadly. The distinguishing feature of my invention is to be found in the tapered sides of the fastener upon which the barbs are formed, which enables me to use any number of barbs and derive from each barb its full holding effect by having them in diagonal lines to the direction of movement of the fastener, it being obvious that if the sides were parallel and the barbs were all in alignment the front barb on each side would be the only ones which would have any holding effect, for the reason that the succeeding ones would only follow in the groove made by the first in being driven under the hoop. As the value of these keys or fasteners depends upon their holding effect on the wood, my tapered construction, whereby I am enabled to use an indefinite number of barbs and get the full effect of each, will be seen to possess decided advantages.

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

The hoop-fastener consisting of a flat piece of metal having tapered edges, with a lip or flange at one end, and a set of barbs at its edges disposed in converging lines, and pointed toward the end bearing the flange, but projecting upon the opposite side of the plate from the flange, as described.

WILLIAM D. RICHARDSON.

Witnesses:

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