

(No Model.)

H. J. WELCH.  
METHOD OF ATTACHING WIRE LOOPS.

No. 514,177.

Patented Feb. 6, 1894.

Fig. 1.

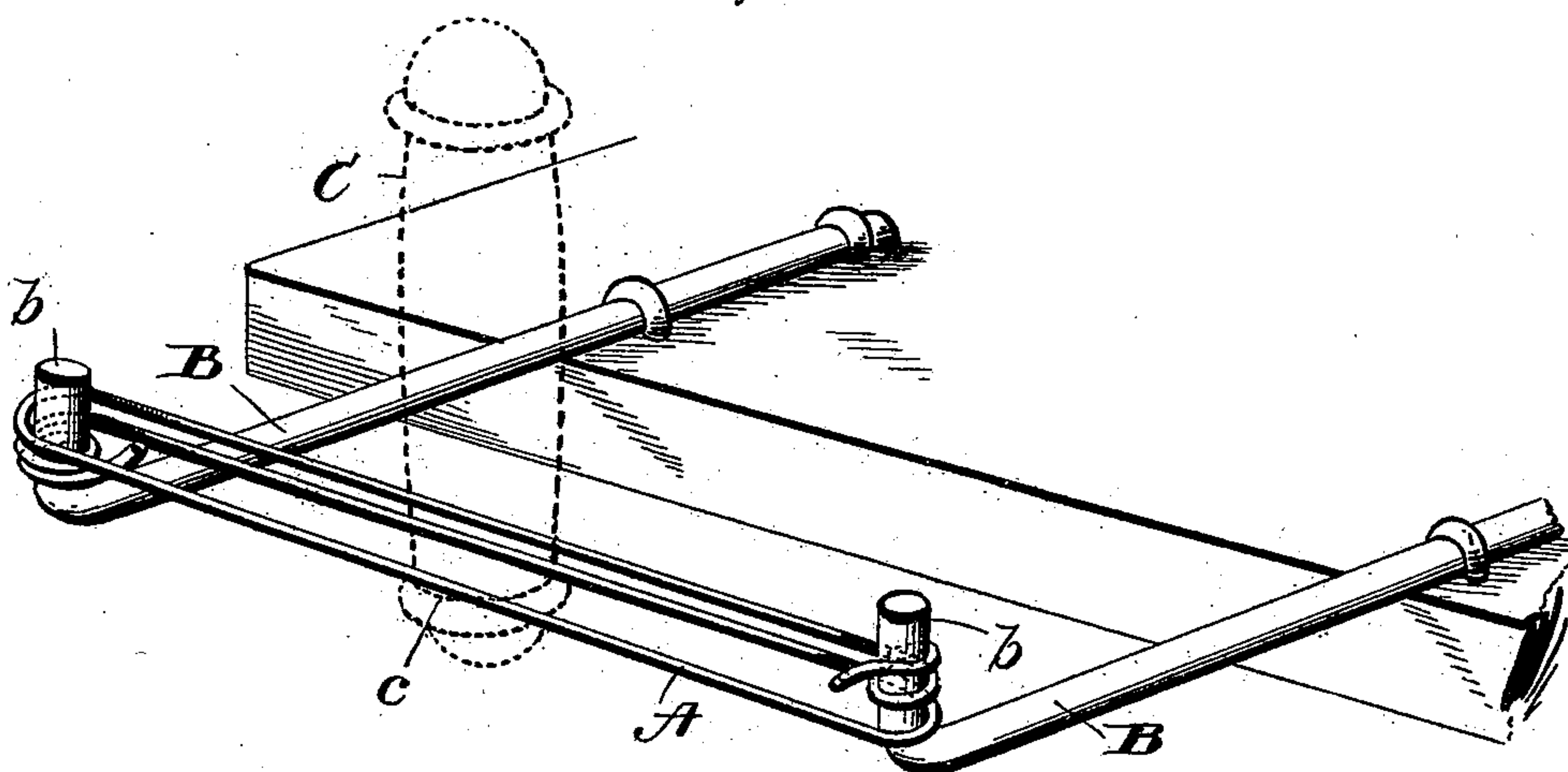
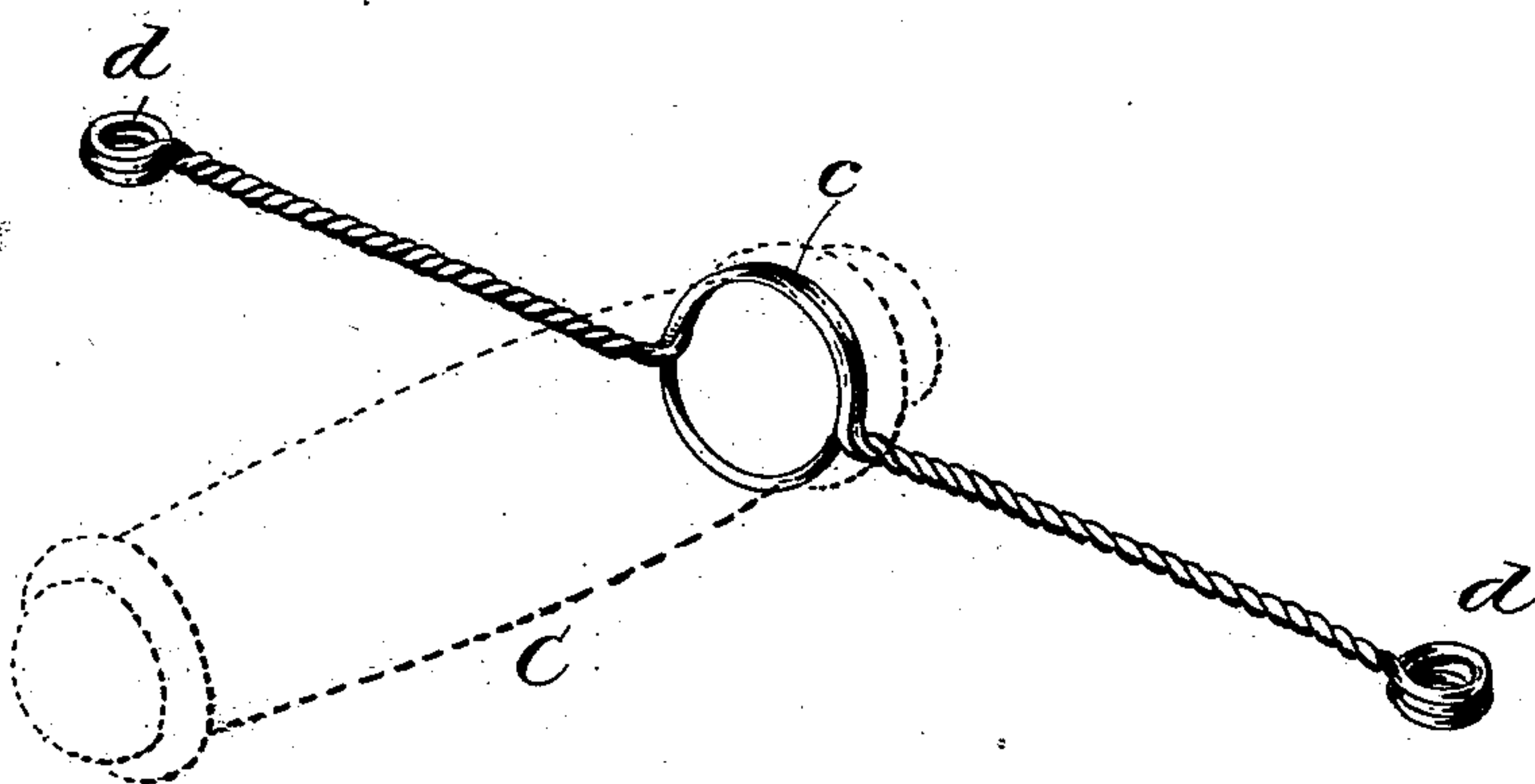


Fig. 2.



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# UNITED STATES PATENT OFFICE.

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## METHOD OF ATTACHING WIRE LOOPS.

SPECIFICATION forming part of Letters Patent No. 514,177, dated February 6, 1894.

Application filed April 15, 1893. Serial No. 470,529. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY JUSTUS WELCH, a citizen of the United States, residing at Carthage, in the county of Jefferson and State of New York, have invented certain new and useful Improvements in Methods of Attaching Wire Loops, &c.; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The object of my invention is to provide means for the attachment of two articles together by a wire connection, such for instance as the tubes and hooks of the trolling bait shown in United States Patent No. 489,110, granted me January 3, 1893, which means shall be free from soldering, winding or tying, and yet secure and efficient for their purpose, and to this end my invention consists in the method employed, substantially as and for the purpose hereinafter specified.

In the annexed drawings, Figure 1 is a perspective view showing the wire arranged preparatory to being manipulated according to my method; Fig. 2 a perspective view of the product of my method attached to the tube of my patented trolling bait above referred to.

The trolling device patented to me January 3, 1893, employs a transparent tube for holding live bait, and to it are attached hooks by means of snells that comprise a portion encircling a shouldered or reduced portion of the tube and two branches or extensions, carrying each a hook, or both being connected to one hook or set of hooks.

It has been my object more especially to provide these snells and to securely fasten them to the tube, but while such has been my special purpose, I wish it understood that I do not limit myself solely to such, but hold myself as entitled to the application of my invention to other objects.

I select the snell rather as a convenient illustration of the invention, and will therefore proceed to describe its practice in this connection. I take a piece of wire A of suitable length, and loop it over two vertical round posts or standards *b b* at the extremities of two horizontal bars or rods B, B, such loop comprising a single wire on one side and double wires on the other side, the doubling being due to carrying the free ends in opposite directions alongside of and parallel with each other so that each free end can be coiled around one of the posts *b* as shown. The loop thus formed being narrower than the diameter of the tube to which the snell is to be attached, it is opened or spread at or near its longitudinal center to admit the tube C and engage it at its reduced portion *c*. The tube is now rotated in a plane at right angles to the length of the loop whereupon the sides of the latter will begin to twist at a point about half way between the posts and the part C, and as the rotation is continued, the twisting will extend until the tube is reached with the result that a strong three strand wire cord is obtained which is most firmly and strongly attached to the tube, and with the tube at its longitudinal center. Loops or eyes *d, d* will be formed at each end of the cord by the posts *b, b*, for the attachment of the hooks. The rods or bars B, B, are made elastic or springy in a slight degree, to permit the posts to come nearer together in consequence of the shortening of the loop that takes place as the twisting occurs.

It will be seen that my invention is applicable to the hooping of pails, buckets, &c., in which connection the loops or eyes *d, d* will form means for the attachment of the bail or handle.

Preferably the free ends of the wire will be placed before the twisting is begun so that said ends will be covered by the twists.

What I claim is—

The herein described method of forming a looped wire and simultaneously attaching it to an object and forming permanent eyes in



the ends thereof, which consists in looping a wire around fixed supports, with the ends of the wire at opposite ends of the loop, then inserting the object between the wire strands  
5 of the loop, then rotating said object to simultaneously twist a coil around the same and to form permanent eyes at the ends of the loop and bind the ends of the wire in the

twist of the eyes, substantially as shown and described. 10

In testimony whereof I affix my signature in presence of two witnesses.

HENRY JUSTUS WELCH.

Witnesses:

H. J. KELLOGG,

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