J. Aldrich,

Aqueduct Coupling.

No. 52,010. Patented Jan. 16, 1866.

Fig: 1

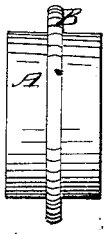


Fig: 2

Fig: 3.

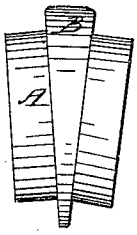


Fig: 5.

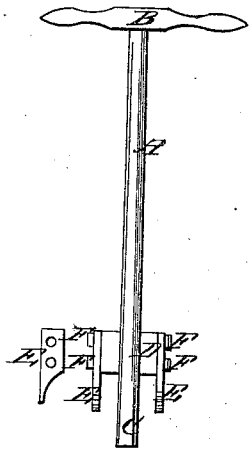
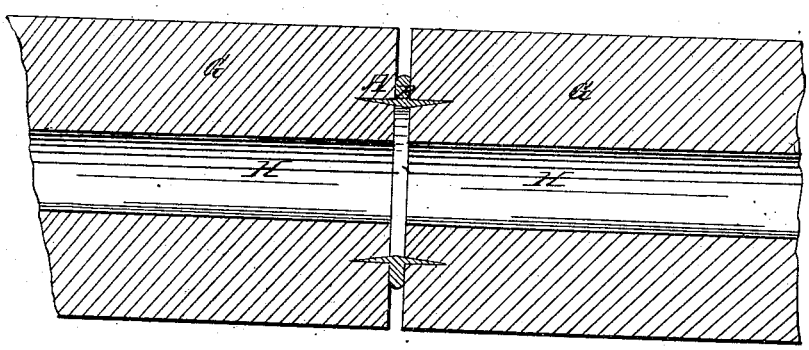


Fig: 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

JOHN ALDRICH, OF LAKE VILLAGE, NEW HAMPSHIRE.

IMPROVED AQUEDUCT-COUPLING.

Specification forming part of Letters Patent No. **52,010**, dated January 16, 1866.

To all whom it may concern:

Be it known that I, JOHN ALDRICH, of Lake Village, in the county of Belknap and State of New Hampshire, have invented a new and Improved Coupling for Aqueduct, Pump, or other Similar Logs; and I do hereby declare the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 is a side view. Fig. 2 is a longitudinal section. Fig. 3 is a modified form for curves or very uneven ground. Fig. 4 is a longitudinal section, showing the connection of two logs, G G. Fig. 5 is a tool to be used for hard wood, as described hereinafter.

The nature of my invention consists in coupling aqueduct, pump, or other similar logs together by means of a peculiarly-constructed coupling of cast-iron or other suitable metal, to form a stronger, more perfect, durable, and economical joint or connection.

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

Similar letters indicate corresponding parts of the several figures, except Fig. 5.

A is a tube with a ring or flange, B, equidistant from each end. The outside of this tube is of uniform size in diameter. The interior diameter gradually increases each way from the center to the ends, which should be as thin or sharp as practicable, forming a circular wedge, as shown in section, Fig. 2, from the middle or ring B to each end, so it may be readily driven into the end of a log.

The ring B is to govern the depth of the coupling, to make it equal in each log when driving the logs together. It also gives additional strength to the coupling.

When the wood is hard, and it is found difficult to drive the coupling into it, a tool like that shown in Fig. 5 may be used to cut or start an annular groove in the end of the log to receive the coupling. Such a tool should have a stock, A, a handle, B, and bits E E, to cut the annular groove. The lower end, C, of the stock should fit the bore H of the log.

To use this coupling, first drive it into the first log, previous to laying it in place. Then place the next log and drive it onto the coupling till the end strikes the ring B, when the joint is complete, as shown in Fig. 4. Now drive in the next coupling, and proceed as before, and so on, with each successive log. For curves, use an angular coupling, like Fig. 3, with long or short logs, according to the radius of the curve.

This coupling, being flaring inside, compresses the wood around the hole in the log and forms a very perfect joint. It also answers as a hoop to prevent the log from splitting, as is often the case by the usual method of coupling such logs.

With this coupling the full thickness of the log is preserved, whereas by the old method one end of the log is reduced to three-fourths of an inch or less in thickness, and is frequently the first part to rot through.

My improvement also effects a saving of six or more inches in the length of each log, also of one-half the time usually required to put them together after being bored.

The outside of this coupling, from the ring to each end, may be sufficiently tapering to admit of being easily molded.

I do not claim simple cylindrical metallic couplings for logs, as such have been used before; but

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

A log or other wooden pipe coupling made of cast-metal with thin or sharp ends, and a central outwardly-projecting ring or flange, B, substantially as and for the purpose herein specified.

JOHN ALDRICH.

Witnesses:

C. P. S. WARDWELL,

M. B. WARDWELL.