

(No Model.)

C. A. HANSEN.
BOOM LOCKING CHAIN.

No. 448,880.

Patented Mar. 24, 1891.

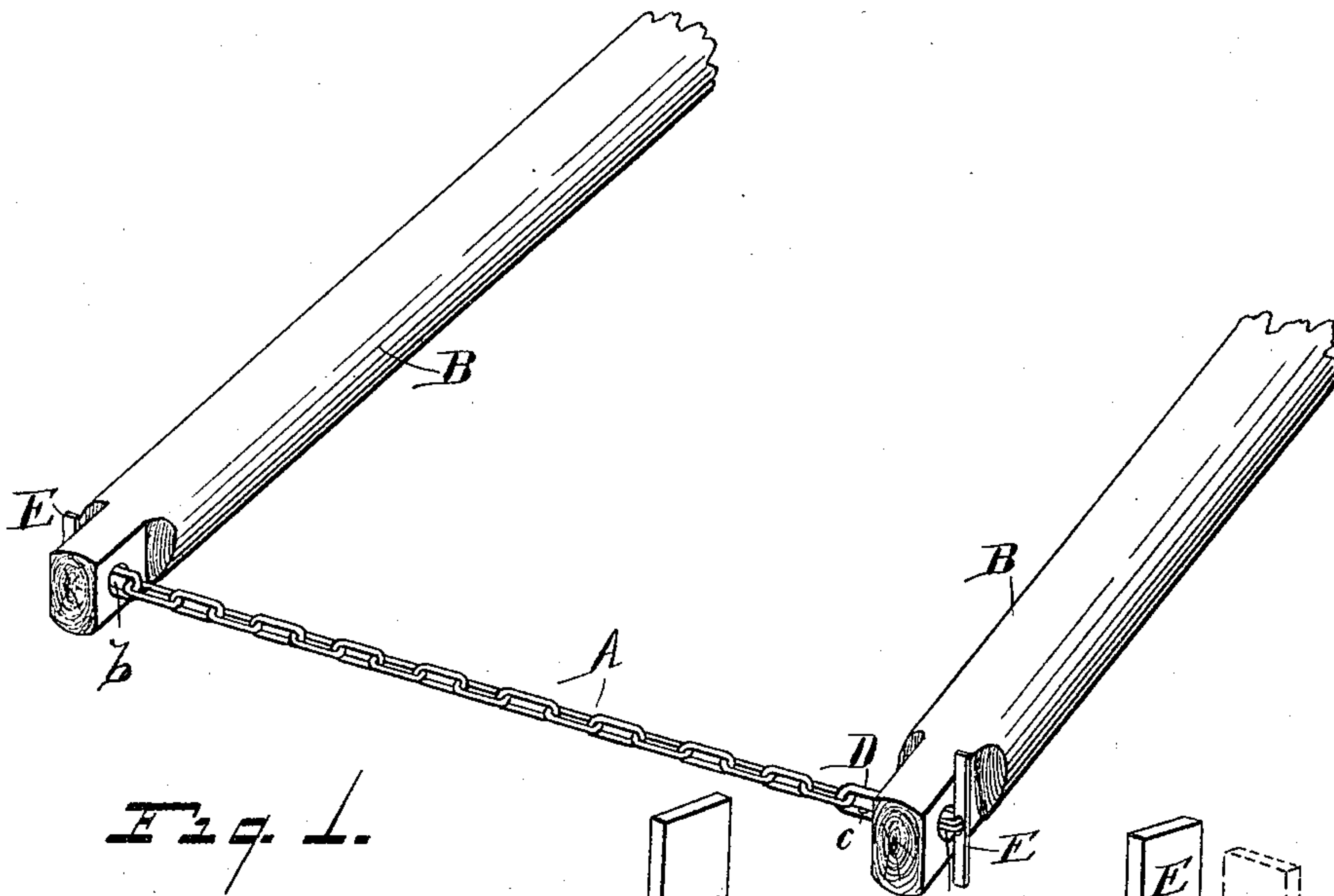


Fig. 1.

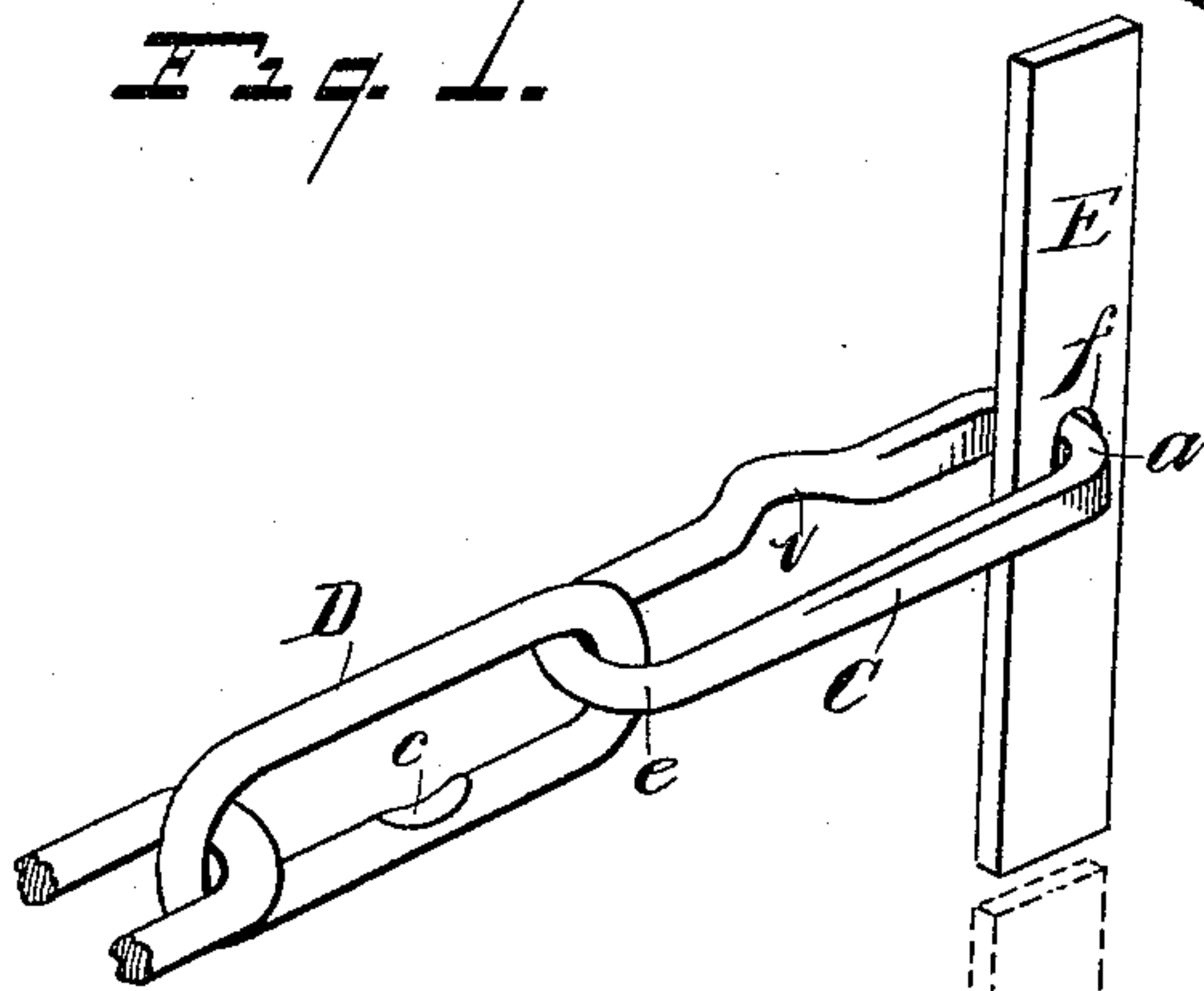


Fig. 2.

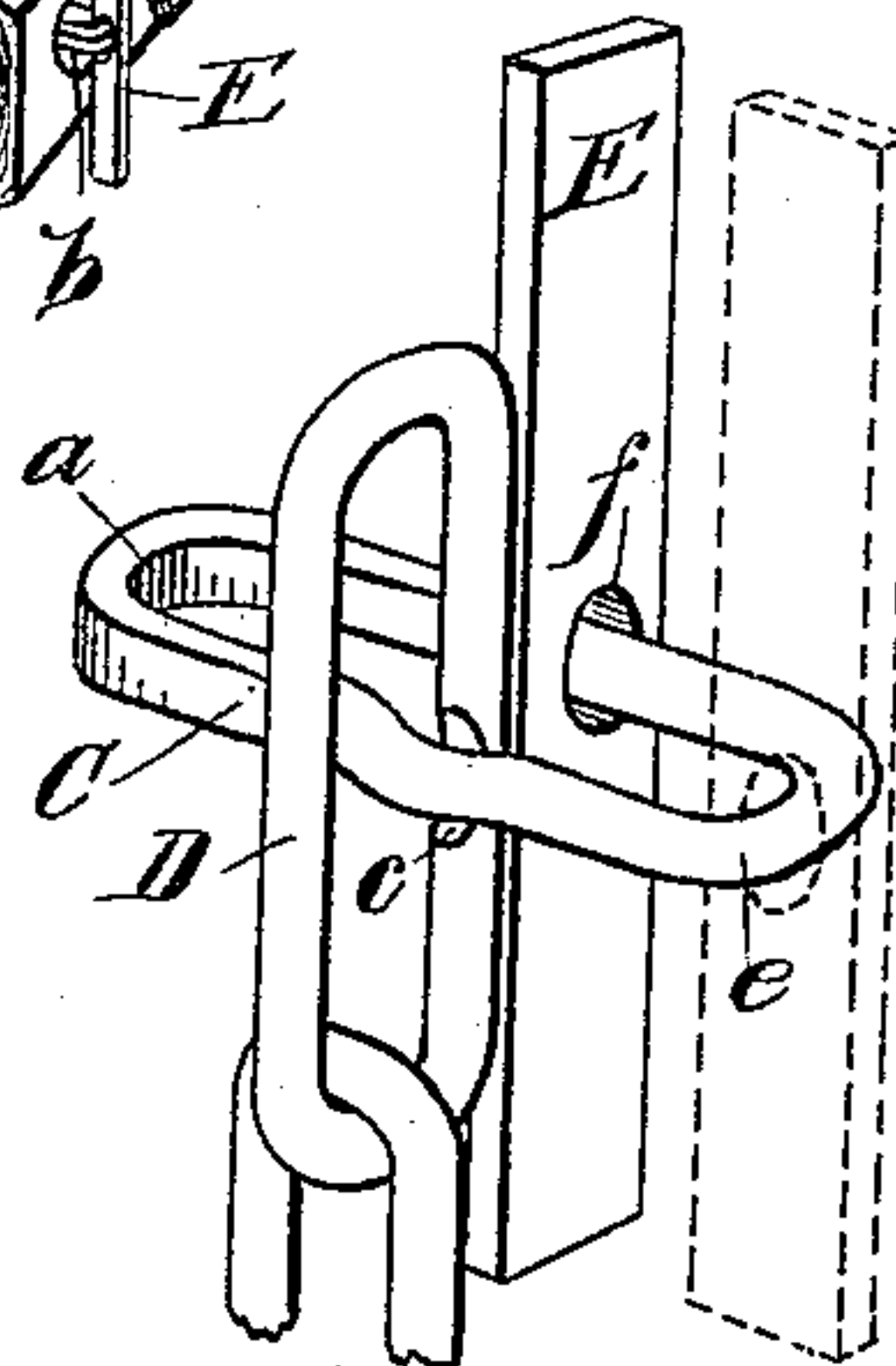


Fig. 3.

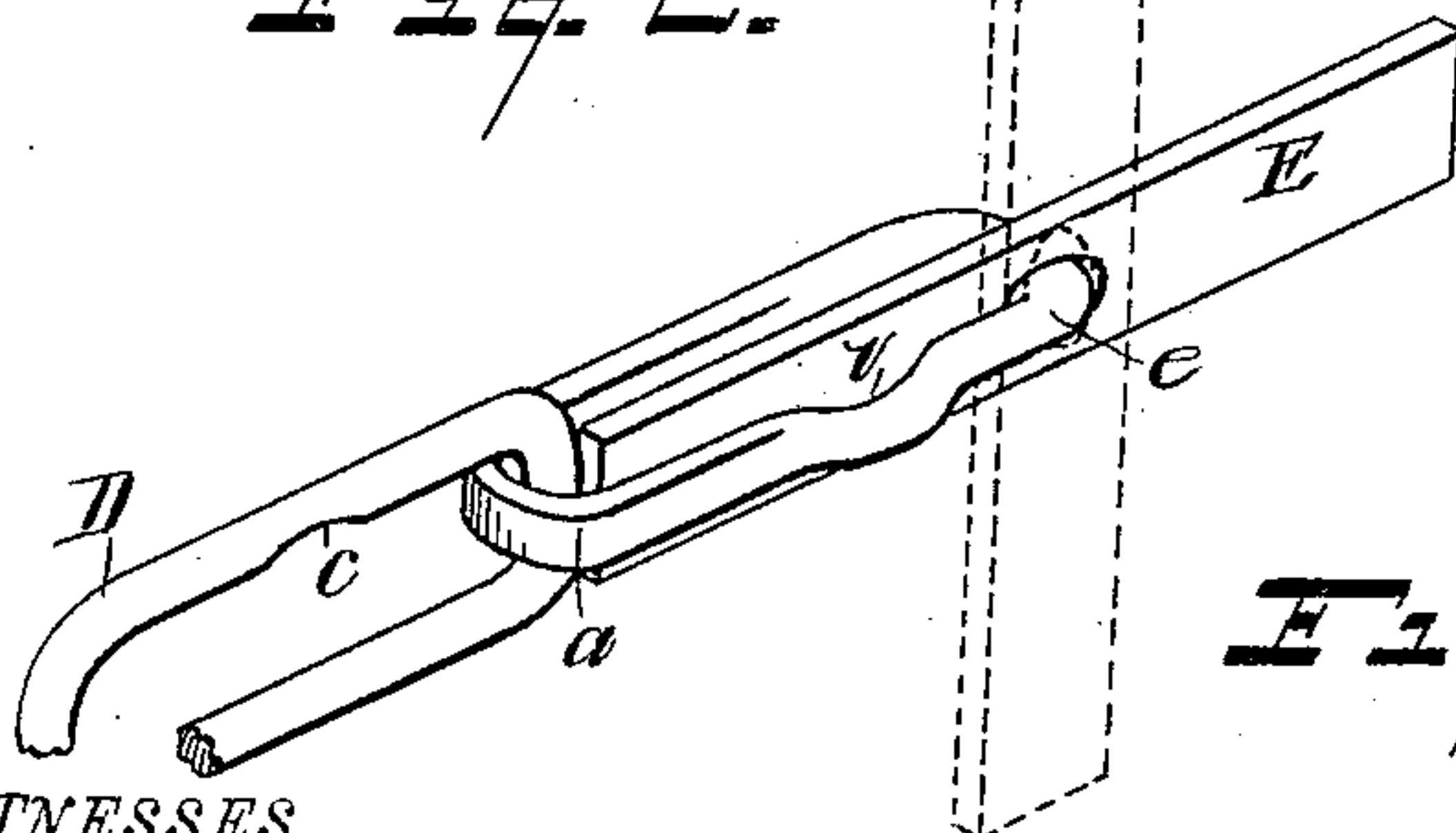


Fig. 4.

WITNESSES

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CHRISTIAN A. HANSEN, OF CHARLEVOIX, MICHIGAN.

BOOM-LOCKING CHAIN.

SPECIFICATION forming part of Letters Patent No. 448,880, dated March 24, 1891.

Application filed November 24, 1890. Serial No. 372,404. (No model.)

To all whom it may concern:

Be it known that I, CHRISTIAN A. HANSEN, a subject of the King of Denmark, residing at Charlevoix, in the county of Charlevoix and State of Michigan, have invented certain new and useful Improvements in Boom-Locking Chains; 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.

This invention relates to new and useful improvements in boom-chain couplings, especially designed for use in booming logs; and it consists in a certain construction and arrangement of parts, as hereinafter more fully set forth, the essential features of which being pointed out particularly in the claims.

The object of the invention is to provide means for securely coupling the ends of the boom logs or timbers and in such manner as to permit of their being readily uncoupled for the purpose of discharging logs from the boom or for placing more logs therein. This object is attained by the device illustrated in the accompanying drawings, in which—

Figure 1 is a view showing the ends of two boom-timbers connected by my improved chain coupling. Fig. 2 is a view of one end of the coupling-chain, showing the position of the locking-bar of the end link thereof when said chain is coupled to the boom in a locked position. Figs. 3 and 4 are views showing the relative positions of the end links and locking-bar of the boom-chain when coupling said chain to or uncoupling it from the boom.

Referring to the letters of reference, A indicates the coupling-chain, and B B the booms coupled thereby, said booms being provided with the holes *b*, passing transversely through the ends thereof, that receive said chain.

One end of the link C of the chain A is square in cross-section, as shown at *a*, the opposite end of said link being round in cross-section, as shown at *e*, and one side of said link in its inner face being provided with the depression *v*, said link also carrying the rectangular bar E, mounted thereon by passing

the link through the oblong opening *f* in said bar at its geometric center. This formation of the link C and bar E permits said bar to revolve freely upon the rounded end *e* of said link, but locks it from turning when moved to the squared end *a* thereof and holds said bar in a position at right angles to the said link, as shown in Fig. 2.

The second link D in the end of the chain is provided in the inner face of one side thereof with the concave or depression *c*, for purposes hereinafter described.

The operation of connecting the ends of the booms B with this improved chain coupling is as follows: The bar E being on the rounded end *e* of the link C (see dotted lines in Figs. 3 and 4) is turned thereon so that one end of the bar will lie within said link and said bar will stand on a horizontal line therewith, as shown in Fig. 4, in which position of parts the bar E may be readily passed through the hole *b* in the end of the boom and secured from being withdrawn by drawing the links C and D through said hole and placing the depressions *c v* in their respective inner faces—one in the other—which will permit the bar E to be slid past the link D (see Fig. 3) and onto the squared end *a* of the link C. The oblong opening *f* in the bar E, which extends longitudinally thereof, prevents said bar from turning on the squared end of the link C and holds it at right angles thereto, thereby locking said bar from being withdrawn through the hole *b* in the boom, thus securely coupling the chain A thereto.

When it is desired to uncouple the chain, one end thereof is drawn through the hole *b* in the boom and the depressions *c c* of the links C D placed together, as before described, permitting the bar E to be slipped past the link D onto the rounded end of the link C, when said bar may be turned thereon to the position shown in Fig. 4 and easily withdrawn through the hole *b* in the boom.

It will now be apparent that by means of this improved coupling-chain a series of booms may be securely connected in such manner as to preclude the possibility of their accidental uncoupling, yet the arrangement of parts being such as will permit of their being readily coupled or uncoupled when desired.

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

1. In combination with the boom having a
5 hole therethrough, the chain having on its end link a bar, said bar having an oblong hole fitting said link, said end link being square in cross-section at one end and round in cross-section at the opposite end and hav-
10 ing a depression in the inner face near the center of the link and the adjacent link having a depression in its inner face, substantially as specified.

2. For the purposes specified, the chain hav-

ing on the end thereof the bar, said bar hav- 15
ing the oblong hole, the link loosely filling said hole, said link being square in cross-section at one end and round in cross-section at the opposite end and having the transverse depression in the body thereof, the adjacent 20
link having a like depression, as set forth.

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

CHRISTIAN A. HANSEN.

Witnesses:

MAY GUYLES,

EDNA SUE GREEN.