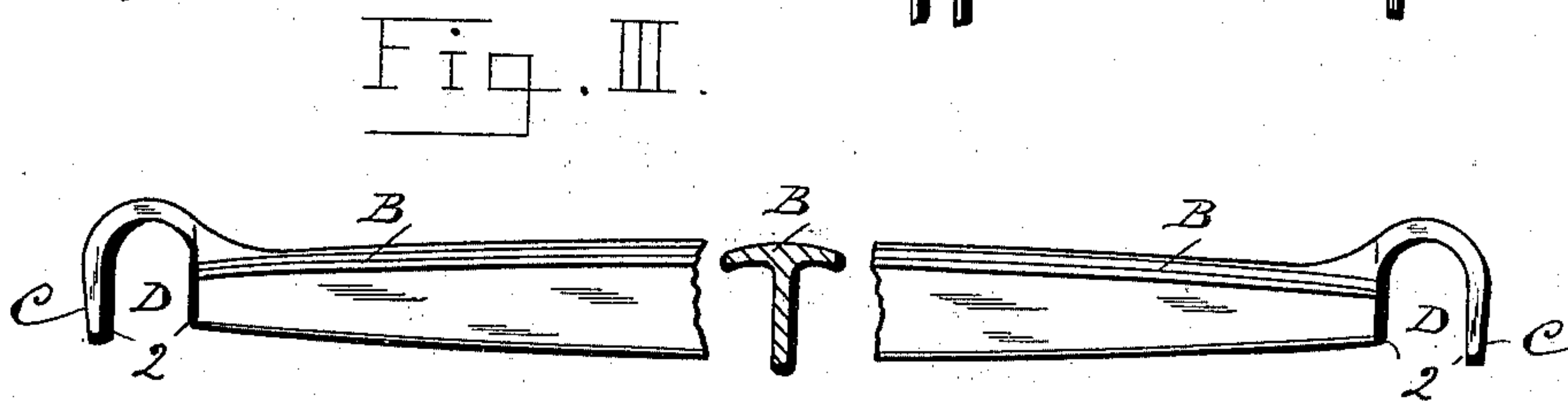
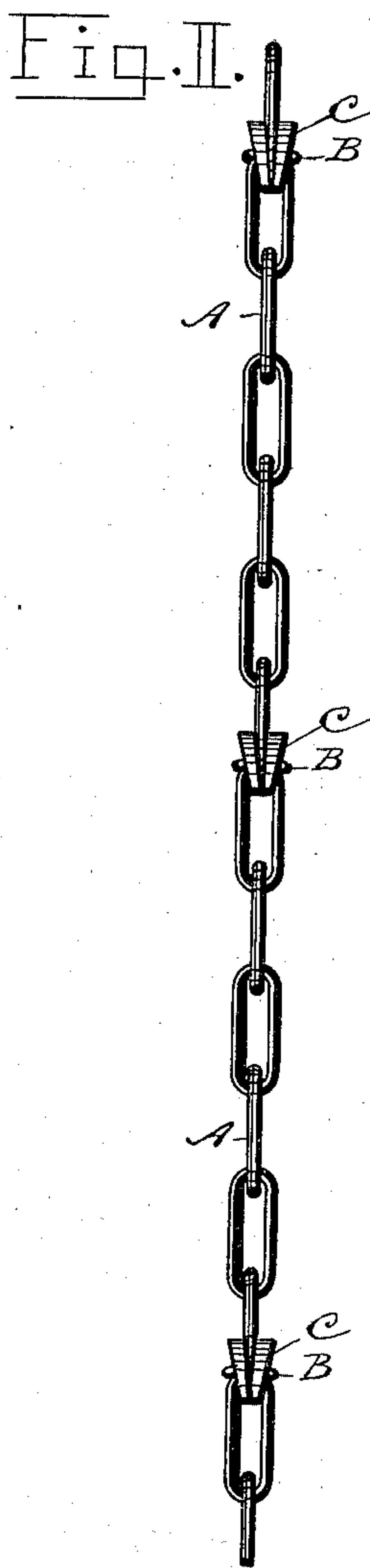
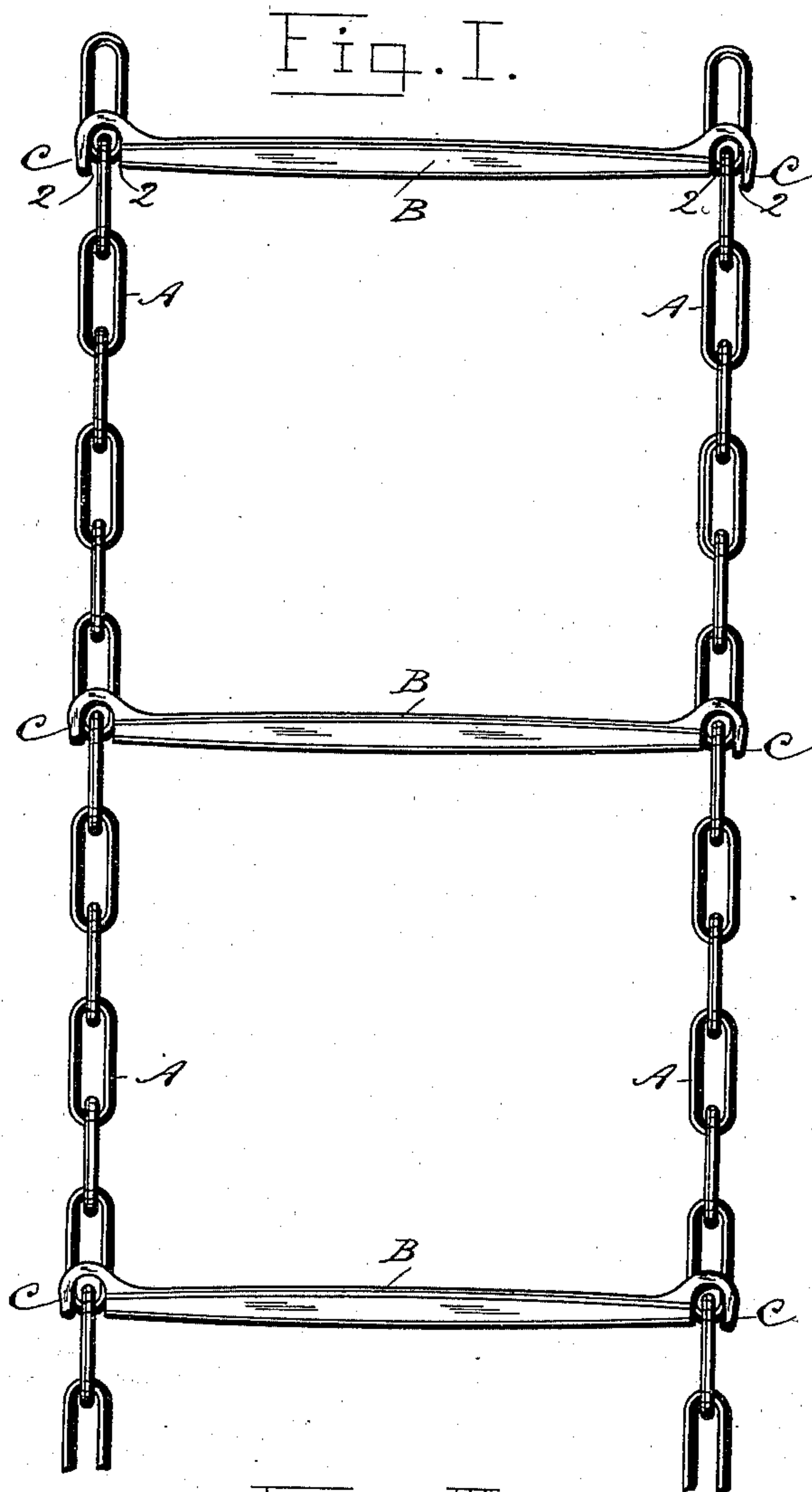


(No Model.)

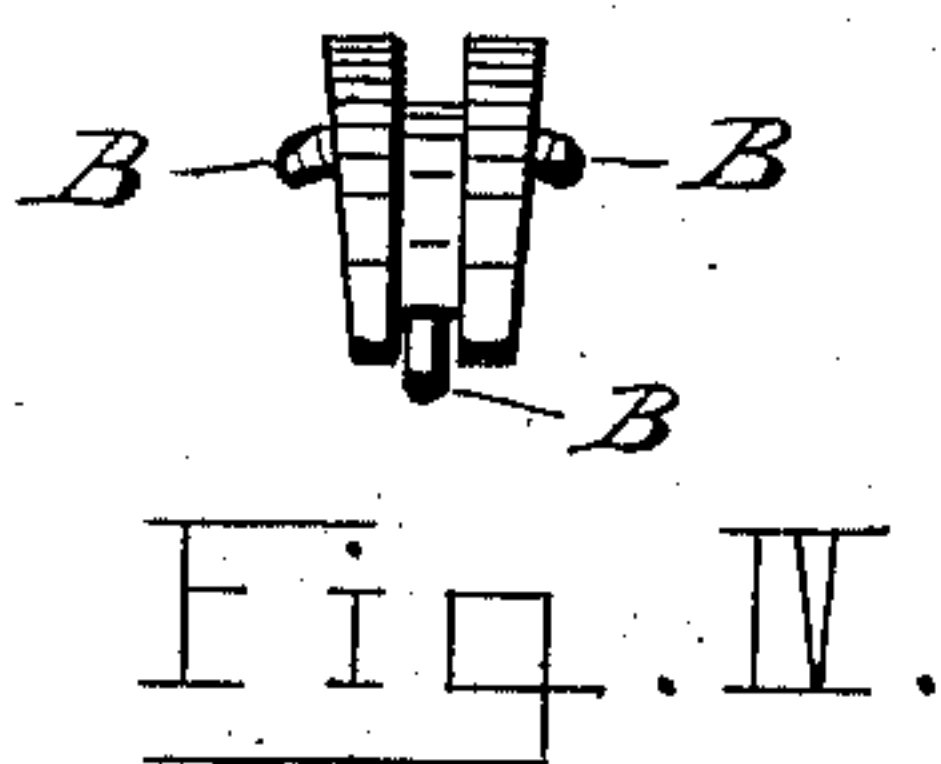
J. MAW.
CHAIN LADDER.

No. 544,860.

Patented Aug. 20, 1895.



Witnesses.
H. G. Cameron
Wm Thompson



Inventor.
John Maw.
By his Atty
John H. Hendry.

UNITED STATES PATENT OFFICE.

JOHN MAW, OF HAMILTON, CANADA.

CHAIN LADDER.

SPECIFICATION forming part of Letters Patent No. 544,860, dated August 20, 1895.

Application filed April 25, 1895. Serial No. 547,108. (No model.)

To all whom it may concern:

Be it known that I, JOHN MAW, a citizen of Canada, residing at Hamilton, in the county of Wentworth and Province of Ontario, Canada, have invented a new and useful Chain Ladder, of which the following is a specification.

My invention relates to an improved chain ladder especially adapted to buildings in case of fire, the sides of the ladder consisting of chain connected by a number of metallic cross-staves or rounds for the foot.

The objects of my invention are, first, to provide a safe and durable metallic ladder, suitable for the highest buildings; second, to afford facilities for the rolling up of the same into a comparatively small compass; also its portability on account of its flexibility. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure I is a front elevation of a portion of a chain ladder. The same may be continued to any length and the upper end secured to a convenient place in or on a building. Fig. II is a side elevation of the same. Fig. III is an enlarged front elevation of one of the many metallic rounds of the ladder. This view is broken near the middle and the same shown in section. Fig. IV is an end elevation of the said round with its malleable end jaws open previous to connection with and closing on the chain.

Similar letters refer to similar parts throughout the several views.

The chain, which may be endless or otherwise, and capable of being suspended from the upper part, or from any window or opening of a building, is indicated by the letter A. The rounds B, which connect the sides of said chain, are composed of metal of a malleable

nature, on account of their ends forming two deeply-set side jaws C, that when the ladder is in course of construction the face sides of a link of chain is inserted between these jaws, and when in position the jaws are pressed and closed against each face of the link and around the outer part thereof and below until the lower ends of the jaws touch each other. This simple and inexpensive method of securing the rounds to the chain is the principal element in the construction thereof. It will be perceived that the round is deeper in the middle than at each end, and also rounded for the foot, and of a proper curved shape and section to insure the maximum of strength with the minimum of weight. This is important as regards its portability. The ends of the rounds are recessed out or deeply concaved, as at D, to allow the same to fit and rest upon the upper end of the adjoining link of chain. Should the jaws possibly open slightly, then the lower sides of openings D form end stops 2, which would certainly prevent any possible endwise movement of the round from position. This means of securing the rounds to the chain dispenses with rivets, bolts, screws, or other mechanical contrivances other than the two principal members which compose the device.

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

In combination, a chain ladder, composed of side chains, and metallic rounds of a malleable nature, having end jaws to close against and fasten to the face sides of a chain link, and resting upon the upper turn or bend of the link, substantially as described.

JOHN MAW.

Witnesses:

SAMUEL O. GREENING,
JOHN H. HENDRY.