

(No Model.)

W. M. PATT.
ROLLER CHAIN.

No. 290,798.

Patented Dec. 25, 1883.

Fig. 1.

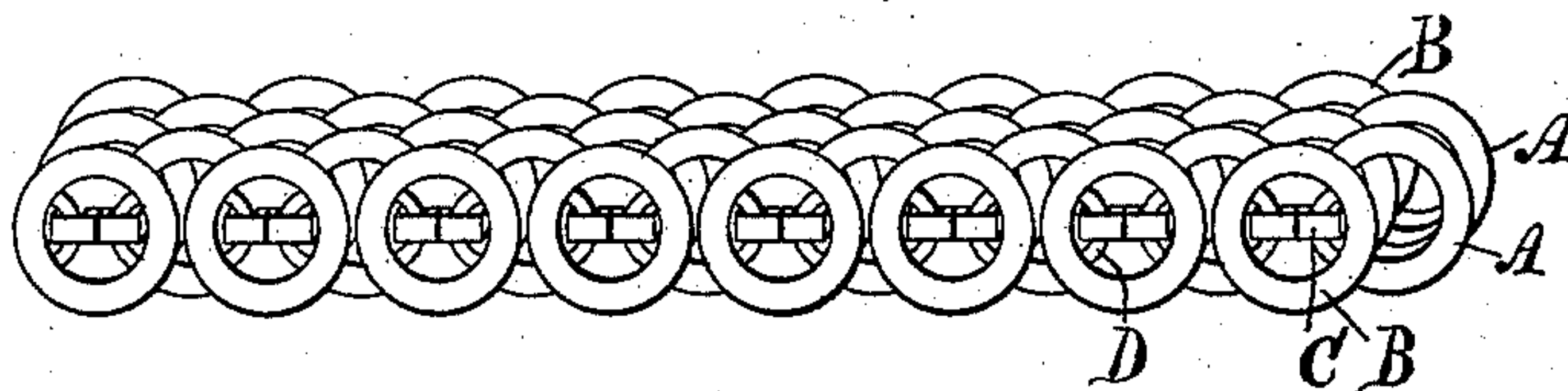


Fig. 2.

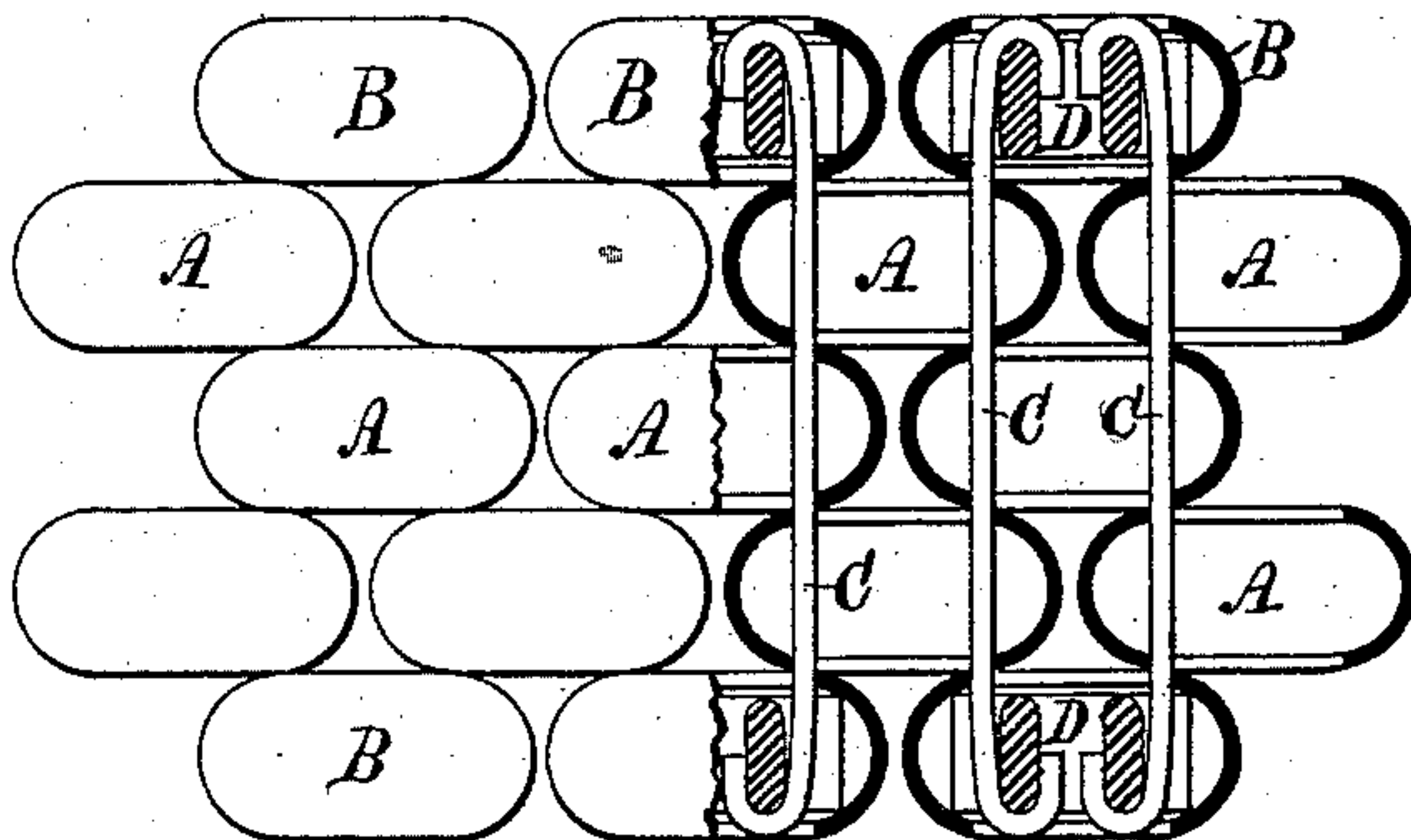


Fig. 3.



Fig. 4.



WITNESSES:

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ROLLER-CHAIN.

SPECIFICATION forming part of Letters Patent No. 290,798, dated December 25, 1883.

Application filed June 9, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM M. PATT, of Plainville, county of Norfolk, and State of Massachusetts, have invented a new and useful Improvement in Roller-Chains; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

This invention has reference to an improvement in the construction of the units or collets forming the edges of roller-chains; and it consists in the peculiar and novel construction by which the ordinary unit is provided with a short section of tubular wire drawn into a peculiar form to receive the staples and form the side units, as will be more fully set forth hereinafter.

Figure 1 is a perspective view of a roller-chain provided with my improved edge units. Fig. 2 is an enlarged view of a roller-chain, shown partly in section. Fig. 3 is a sectional view of a partly-formed end unit. Fig. 4 is a view and section of a piece of tubular wire from which short sections are cut to be inserted into the end units.

In the manufacture of roller-chains the small rings, units, or collets forming the main portion of the chain are made of thin sheet metal in a machine, which first cups the same, and then closes the sheet over to form the unit. In Fig. 3 the half-formed unit is shown in solid lines and the closed unit indicated in broken lines, and in Fig. 2 the completed units are shown in solid lines. The side units have heretofore been provided with two holes, through which the staples are passed to secure the units in forming the chain, and separate machines were required to form these side units.

The object of this invention is to simplify

the construction and construct all the units so that the same may be made in the same or similar machines.

In the drawings, A A are the ordinary units forming the main portion of a roller-chain. B B are the side units.

C C are the staples by which the units are secured together to form the chain.

D D are short pieces of tubular wire, formed, as shown in Fig. 4, by forcing two opposite sides of a cylindrical tube inward, so as to form spaces through which the staples C C can pass. These short pieces of tubular wire are placed into the partly-formed units, and are secured by closing the unit in the usual manner, as is shown in Fig. 3, and when the chain is united the ends of the staples C C are bent over the sections D of tubular wire, as is shown in Fig. 2. The sections of tubular wire D strengthen the side units, as they sustain the metal of the same against external pressure. They give a firm and solid bearing to the turned-in ends of the staples, making a strong and durable fastening.

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

1. The combination, with the unit or collet of a roller-chain, of the section of tubular wire D, inclosed in the unit and constructed to receive the ends of the staples, as described.

2. The combination, with the units A A and the units B B, of the staples C C and the sections of tubular wire D, constructed to allow the staples to pass on the outer side and clinch on the inner side of the same to form a roller-chain, as described.

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Witnesses:

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