

(No Model.)

B. S. FREEMAN, Jr. & E. L. ROBINSON.

ORNAMENTAL CHAIN.

No. 311,114.

Patented Jan. 20, 1885.

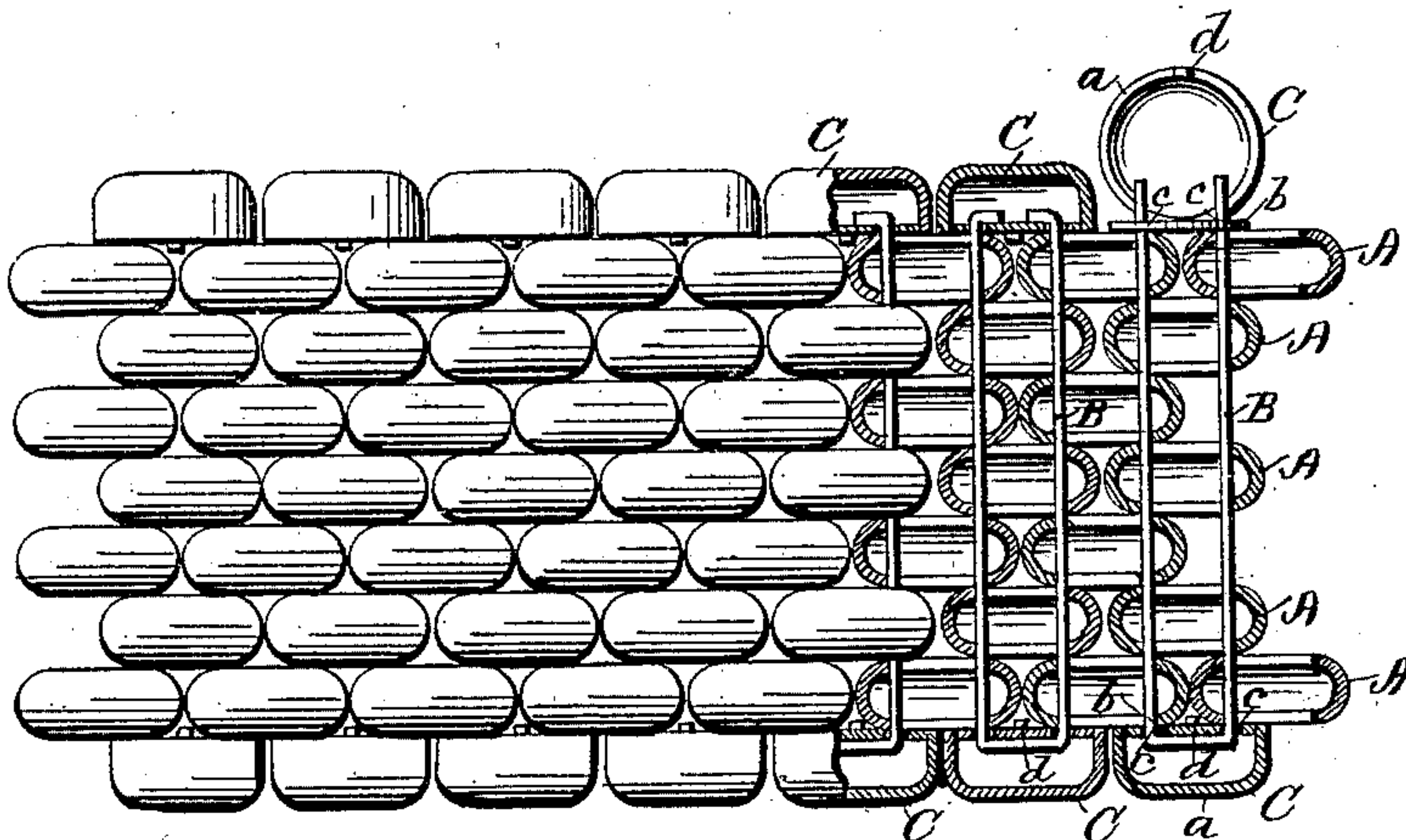


FIG. 1.

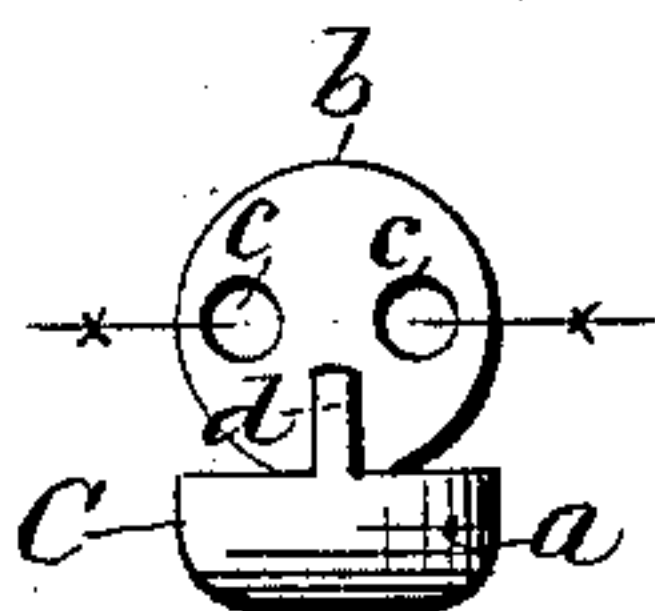


FIG. 2.

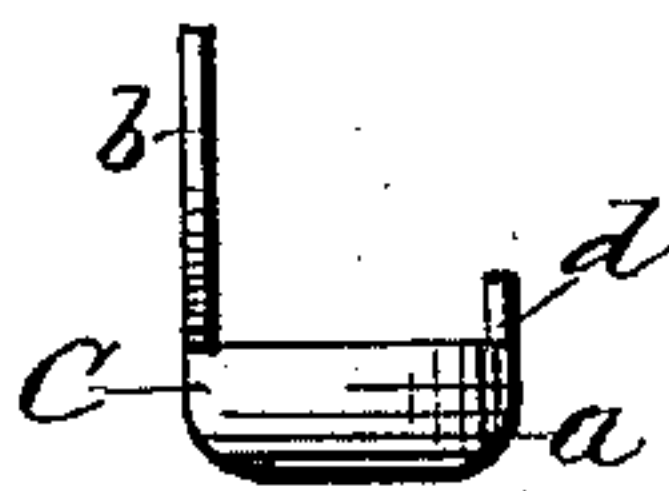


FIG. 3.

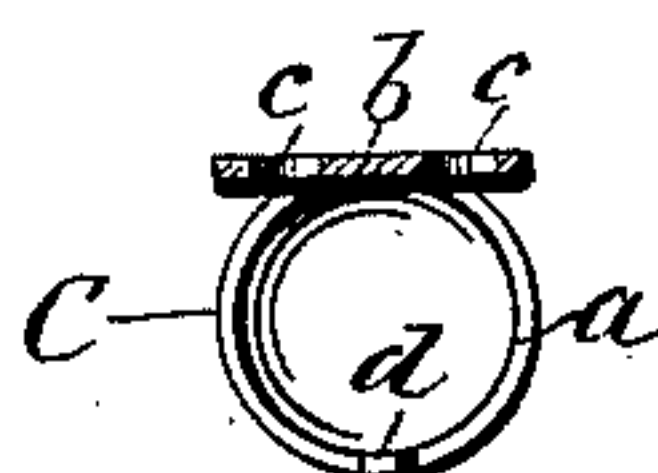


FIG. 4.

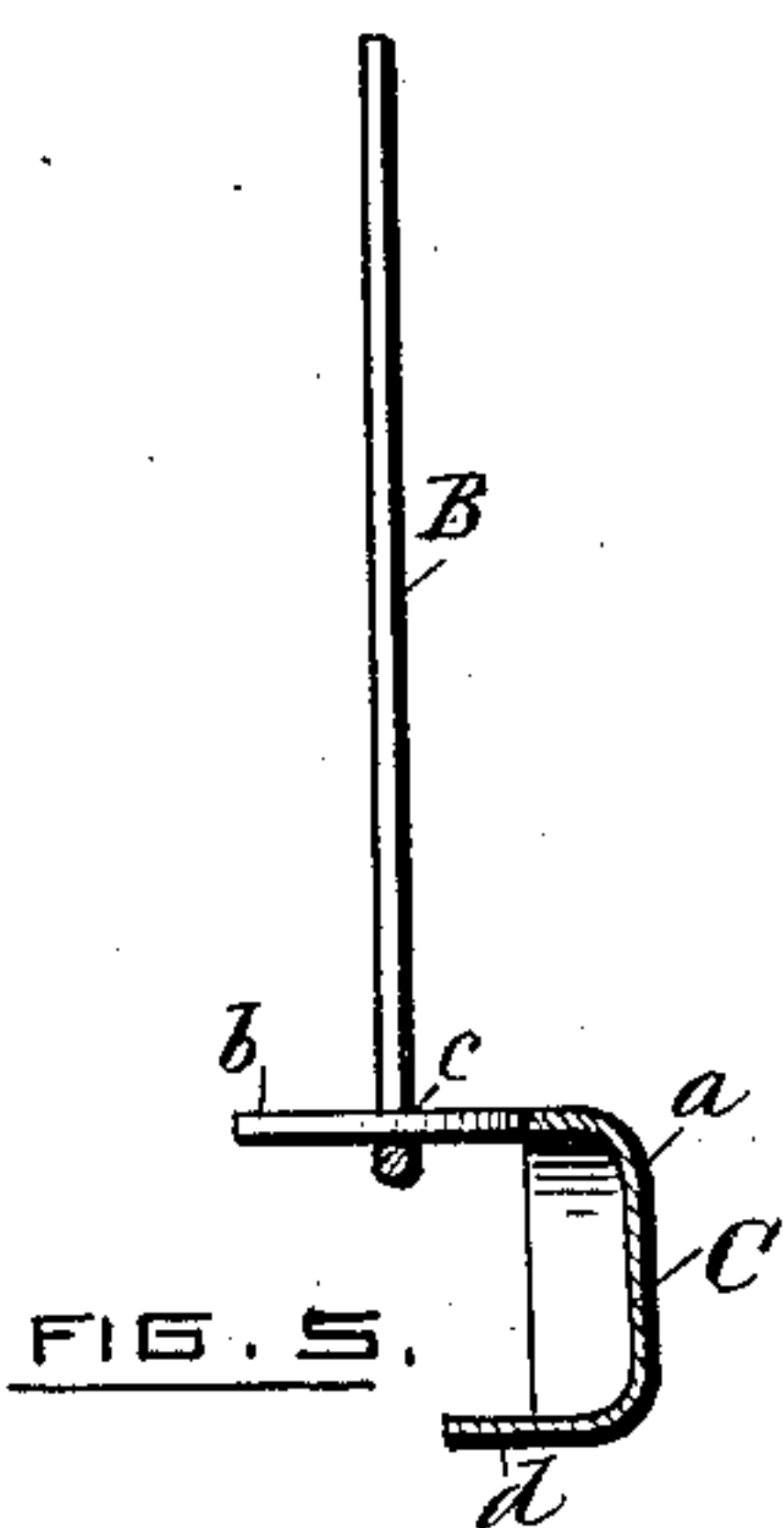


FIG. 5.

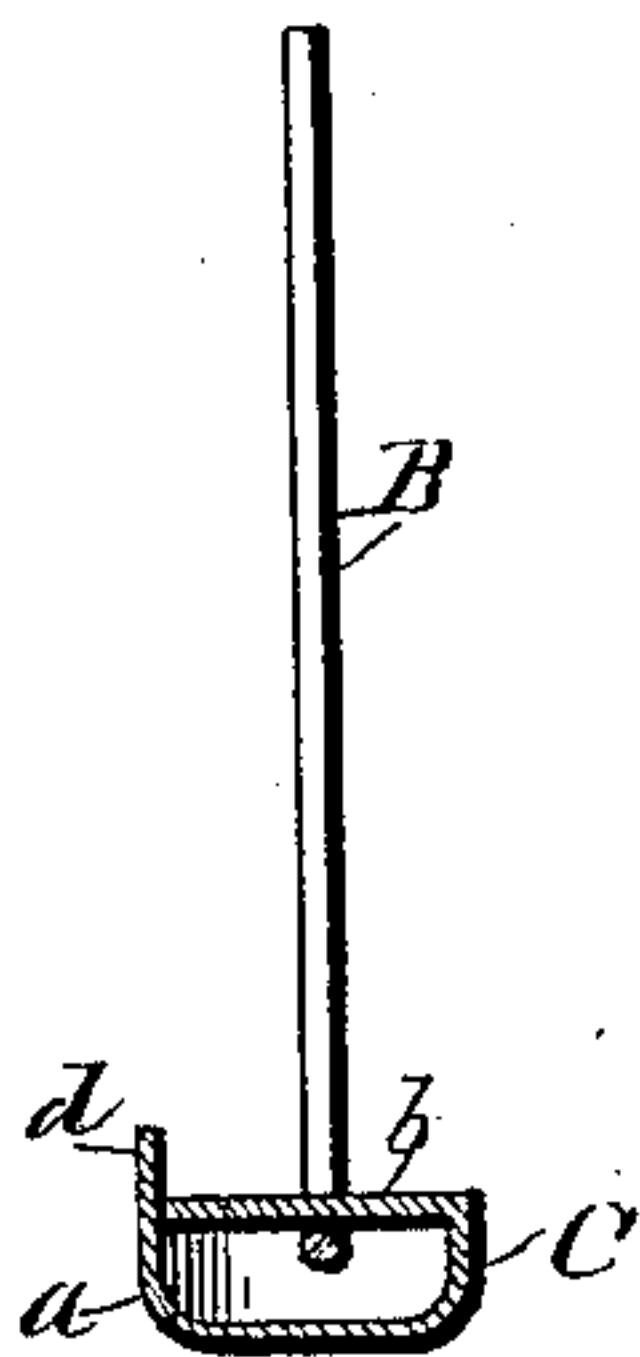


FIG. 6.

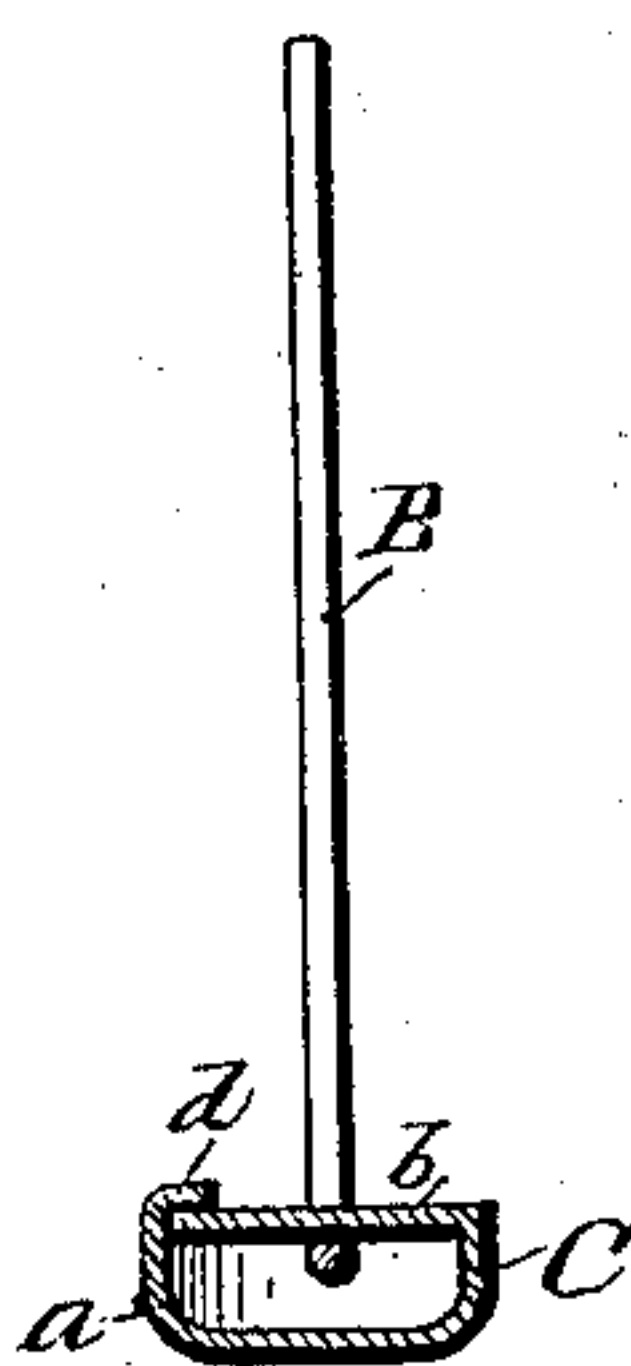


FIG. 7.

WITNESSES:

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# UNITED STATES PATENT OFFICE.

BENJAMIN S. FREEMAN, JR., AND EDWIN L. ROBINSON, OF ATTLEBOROUGH FALLS, MASS., ASSIGNORS TO B. S. FREEMAN & CO., OF SAME PLACE.

## ORNAMENTAL CHAIN.

SPECIFICATION forming part of Letters Patent No. 311,114, dated January 20, 1885.

Application filed September 8, 1884. (No model.)

*To all whom it may concern:*

Be it known that we, BENJAMIN S. FREEMAN, Jr., and EDWIN L. ROBINSON, of Attleborough Falls, in the county of Bristol and State of Massachusetts, have invented an Improvement in Ornamental Chains, of which the following is a specification.

Our invention relates to an improvement in the construction of what are known as "roller-chains;" and it consists in the peculiar and novel construction of the edge units of the chain, as hereinafter set forth.

Figure 1 is an elevation and partial section of the chain provided with our improvement. Fig. 2 is a plan view of the edge unit as formed for the reception of the connecting bars or staples of the chain. Fig. 3 is an edge elevation of the same. Fig. 4 is a section taken in the line *xx* of Fig. 2. Figs. 5, 6, and 7 are detail views.

In the drawings, *A A* are the center beads of the chain, which are formed and arranged in the chain in the usual manner. *B B* are the wire staples, which serve to secure the beads *A* in parallel rows of alternating beads, as shown in Fig. 1.

To form the edge units *C* of the chain we "strike up" a cup, *a*, having at one side of its edge a projecting plate, *b*, provided with perforations *c c*, adapted to receive the wire of the staples, and the opposite edge of the cup is provided with the projecting lip *d*.

To form the chain we first pass the staples *B* through the perforations *c c*, as shown in Fig. 5, and then turn the cup *a* over the plate *b*, as shown in Fig. 6, and secure the cup *a*

and plate *b* in their closed position by bending the lip *d* over the edge of the plate, as shown in Fig. 7. After arranging the center beads, *A*, upon the wire staples *B*, as usual, the attached units *C* forming one edge of the chain, we pass the projecting ends of the staples through the perforations *c c* of the plate *b*, and after lapping the ends of the wire staples over the face of the plate close the cups upon the plates to form the opposite edge of the chain.

Instead of the perforations *c c* in the plate *b*, equivalent open notches may be employed, as common in such chains; but our invention differs from all previous inventions of this class by reason of the formation of each of the edge units of the chain in one piece, with consequent economy in the manufacture of such chains.

We claim as our invention—

1. The improved edge unit for an ornamental chain, consisting of the cup, perforated or notched plate, and fastening-lip, made integral with each other, substantially as described.

2. In an ornamental chain, the combination of the central beads or links and the connecting-staples with the integral edge units, constructed and arranged substantially as described.

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Witnesses:

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