J. Blocher.

Making Chains.

No. 30,797. Patented Dec. 4, 1860.

Fig. 5.

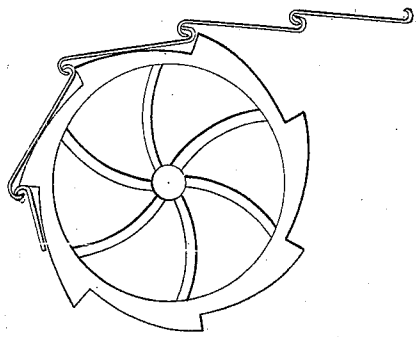


Fig. 3.

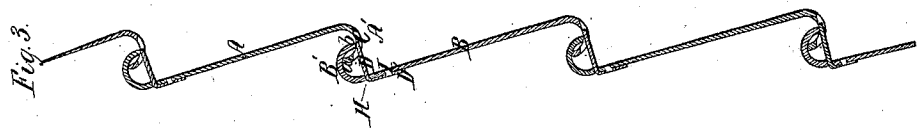


Fig. 2.

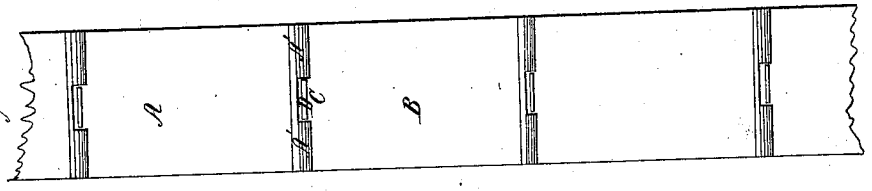


Fig. 4.

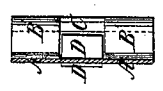
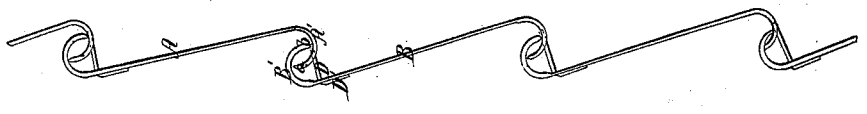


Fig. 1.



Witnesses;
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UNITED STATES PATENT OFFICE.

JOHN BLOCHER, OF WILLIAMSVILLE, NEW YORK.

CHAIN.

Specification of Letters Patent No. 30,797, dated December 4, 1860.

To all whom it may concern:

Be it known that I, JOHN BLOCHER, of Williamsville, in the county of Erie and State of New York, have invented a new and useful Improvement in the Construction of Chains; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a side view. Fig. 2, a front view, and Fig. 3, a central section of the chain. Fig. 4 is a sectional view of a single link, and Fig. 5 shows the chain when applied to a drum.

Similar letters of reference in each of the several figures indicate corresponding parts.

The nature of my invention consists in the combination of the knee of one knife edged link with the slot of another knife edged link for the purpose of forming a chain, the links of which cannot detach themselves from each other.

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

The chain is formed of a succession of links A, A′, and B, B′, the ends of each link being bent in opposite directions as seen in Figs. 1 and 3. The curved portion of each link end represents a semi-circle. The curved end of one link is hung into the curved end of the next link and so on so as to form a continuous chain.

The curved ends are all knife edged, as seen at *a*, *b*. The edge of one link rests on the hollow surface of the next link. The motion of one link in relation to the next one is a swinging motion, the fulcrum of which is the knife edge of the end of one of the two links. This motion is attended with very little friction, if any, and thus the chain is made to possess a high degree of flexibility. If the curved surface of the end of one link were made to rest on and slide in contact with the curved surface of the other link, the two surfaces of a certain extent being in contact with and sliding upon each other, would create considerable friction and correspondingly diminish the flexibility of the chain.

To lock the links together so that they cannot detach themselves from each other in the line of the length of the chain and laterally to this line, a narrow knee D, D′, is riveted—at I—to the upper end of the straight part of each link. One half of the knee D, extends through a slot H, in the upper end of the straight part of the link, and fits into a corresponding slot C, in the curved portion of the lower end of the next link, as seen in Fig. 3, the knife edge B, of the curved end B′, of link B, being in contact with the upper surface of the part D, of the knee, whereby the two links are locked together so that they cannot detach themselves from each other, without interfering with the free motions of each link around the fulcrum formed by the knife edges, as above described.

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

The combination of the knee D, D′, of one knife edged link B, B′, with a slot C, of another knife edged link A, A′, for the purpose of forming a chain, the links of which cannot detach themselves from each other, substantially as set forth.

JOHN BLOCHER.

Witnesses:

GOODWIN Y. AT LEE,

G. F. G. DIETERICH.