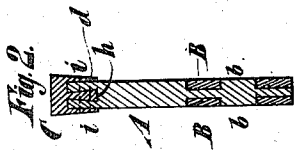
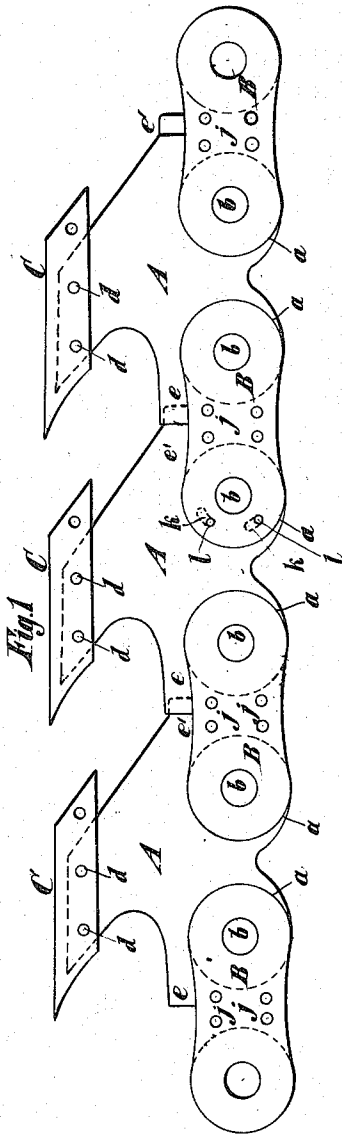


(No Model.)

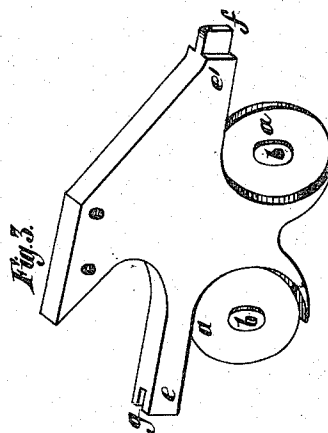
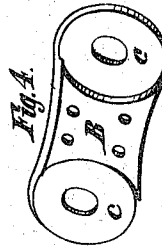
F. L. MAGAW.  
CHAIN CUTTER.

No. 279,781.

Patented June 19, 1883.



Witnesses:  
James R. Bowen.  
Alfred L. Brown



Inventor:  
Frederick L. Magaw,  
by his attorney,  
Edwin H. Ham

# UNITED STATES PATENT OFFICE.

FREDERICK L. MAGAW, OF FLATLANDS, NEW YORK, ASSIGNOR OF TWO-THIRDS TO JOHN A. PEER, OF GRASS VALLEY, CALIFORNIA, AND WILLIAM C. EDES, OF BOSTON, MASSACHUSETTS.

## CHAIN CUTTER.

SPECIFICATION forming part of Letters Patent No. 279,781, dated June 19, 1883.

Application filed October 27, 1882. (No model.)

### *To all whom it may concern:*

Be it known that I, FREDERICK L. MAGAW, of Flatlands, in the county of Kings and State of New York, have invented a certain new and useful Improvement in Endless-Chain Saws, of which the following is a specification.

The improvement consists in the combination, in an endless-chain saw, of a number of saw-teeth links, a number of intermediate connecting-links, and intermatching tongues and grooves on the saw-teeth for steadying the saw-teeth laterally.

The improvement also consists in the combination, in an endless-chain saw, of a number of saw-teeth links, a number of intermediate connecting-links, and pins inserted through and secured in the intermediate links and passing through arc-shaped slots in the saw-teeth links. I preferably employ both the tongues and grooves and the pins and arc-shaped slots for steadying the saw-teeth laterally.

In the accompanying drawings, Figure 1 is a side view of a portion of an endless chain-saw embodying my improvement. Fig. 2 is a transverse section of one of the saw-teeth links thereof. Fig. 2 is a perspective view of one of the saw-teeth links, and Fig. 4 is a perspective view of a section of one of the links which are intermediate to the saw-teeth links.

Similar letters of reference indicate corresponding parts in all the figures.

A designates the saw-teeth links of the saw. Each has recessed portions *a*, in the center of which are studs or pivots *b*. The intermediate links, B, severally consist of a pair of sections having recesses *c* on the inner sides, at the ends, to intermatch with the adjacent saw-teeth links, and they are perforated to fit on the studs or pivots of the saw-teeth links. Rivets *j* secure the sections of these intermediate links, B, together. The saw-teeth links have extensions *e e'*, which lap over the outer edges of the intermediate links, and at the ends are provided with tongues *f* and grooves *g*, intermatching with one another, so that the saw-teeth links afford a steadiment for each other laterally.

The saw-teeth links have cutting-faces C, which are provided with dovetail tongues *h*, fitting in corresponding grooves in the outer edges of said links, and flanges *i*, which over-

lap the sides of the links. These cutting-faces may be moved lengthwise along the saw-teeth links to compensate for wear, and they may be secured in different positions into which they may be adjusted by means of pins *d*, passing transversely through their tongues *h* and flanges *i*, and through the said links.

I have devised another means of steadying the saw-teeth links which may be used in lieu of or in addition to the tongues and grooves *f g*. These means consist of slots *k* in the saw-teeth links, and rivets or pins *l* extending through the said slots and fastened at the ends to the intermediate links. The rivets or pins so arranged steady the saw-teeth links close to the ends of the intermediate links, and yet allow of all necessary motion between the links in passing around a pulley or drum. The ends of the intermediate links may be extended farther beyond the pivots *b*, to steady the saw-teeth links still more effectively, and then, of course, the pins *l* and the slots *k* will be arranged as far from the pivots as possible. These means of steadiment will be very desirable for thin saws.

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

1. The combination, in an endless-chain-saw, of a number of saw-teeth links, a number of intermediate connecting-links, and intermatching tongues and grooves on the saw-teeth for steadying the saw-teeth laterally, substantially as specified.

2. The combination, in an endless-chain-saw, of a number of saw-teeth links, a number of intermediate links, and pins inserted through and secured in the intermediate links, and passing through arc-shaped slots in the saw-teeth links, for the purpose of steadying the saw-teeth laterally, substantially as specified.

3. The combination, in an endless-chain-saw, of a number of saw-teeth links, a number of intermediate links, intermatching tongues and grooves on said teeth, and pins inserted through and secured in the intermediate links, and passing through arc-shaped slots in the saw-teeth links, for steadying the saw-teeth laterally, substantially as specified.

FREDERICK L. MAGAW.

Witnesses:

T. J. KEANE,  
JAMES R. BOWEN.

It is hereby certified that in Letters Patent No. 279,781, granted June 19, 1883, upon the application of Frederick L. Magaw, of Flatlands, New York, for an improvement in "Chain Cutters," an error appears requiring correction as follows: In line 27, page 1, of the printed specification, "Fig. 2" should read *Fig. 3*, and that the specification should be read with this correction therein to make it conform with the record of the case in the Patent Office.

Signed, countersigned, and sealed this 10th day of July, A. D. 1883.

[SEAL.]

Countersigned:

E. M. MARBLE,

*Commissioner of Patents.*

H. M. TELLER,  
*Secretary of the Interior.*