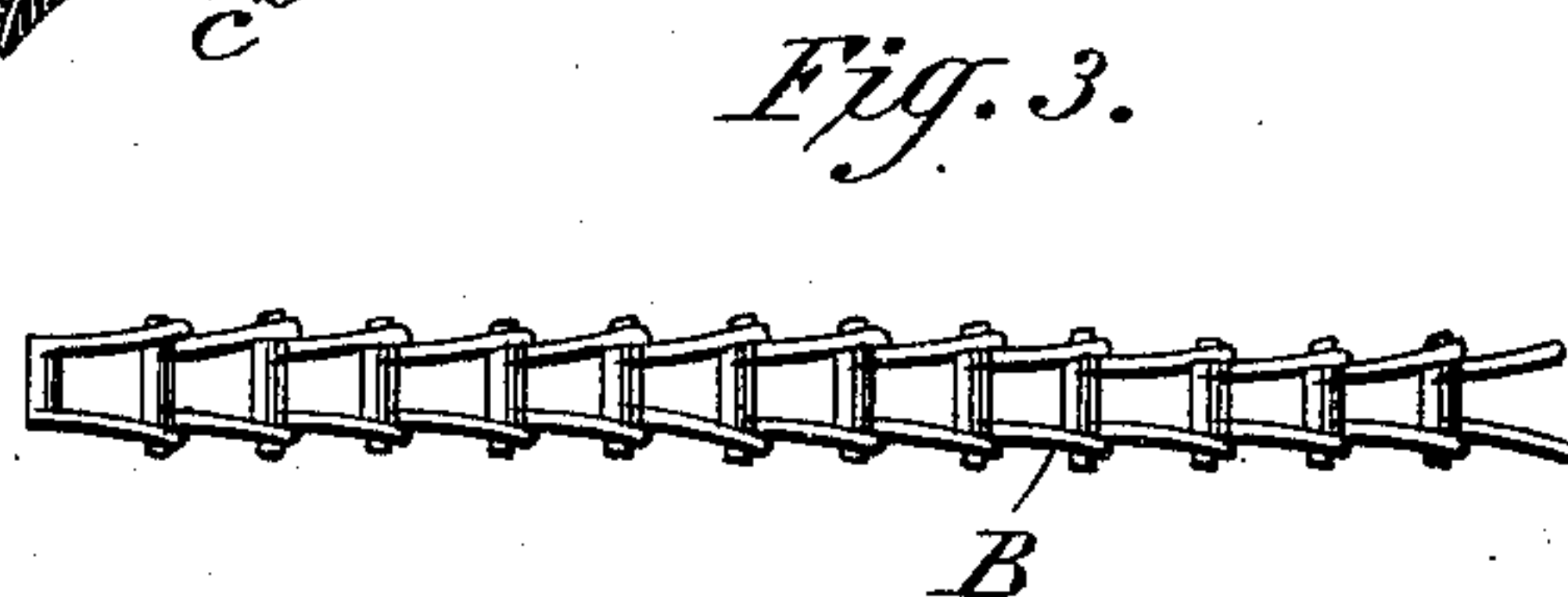
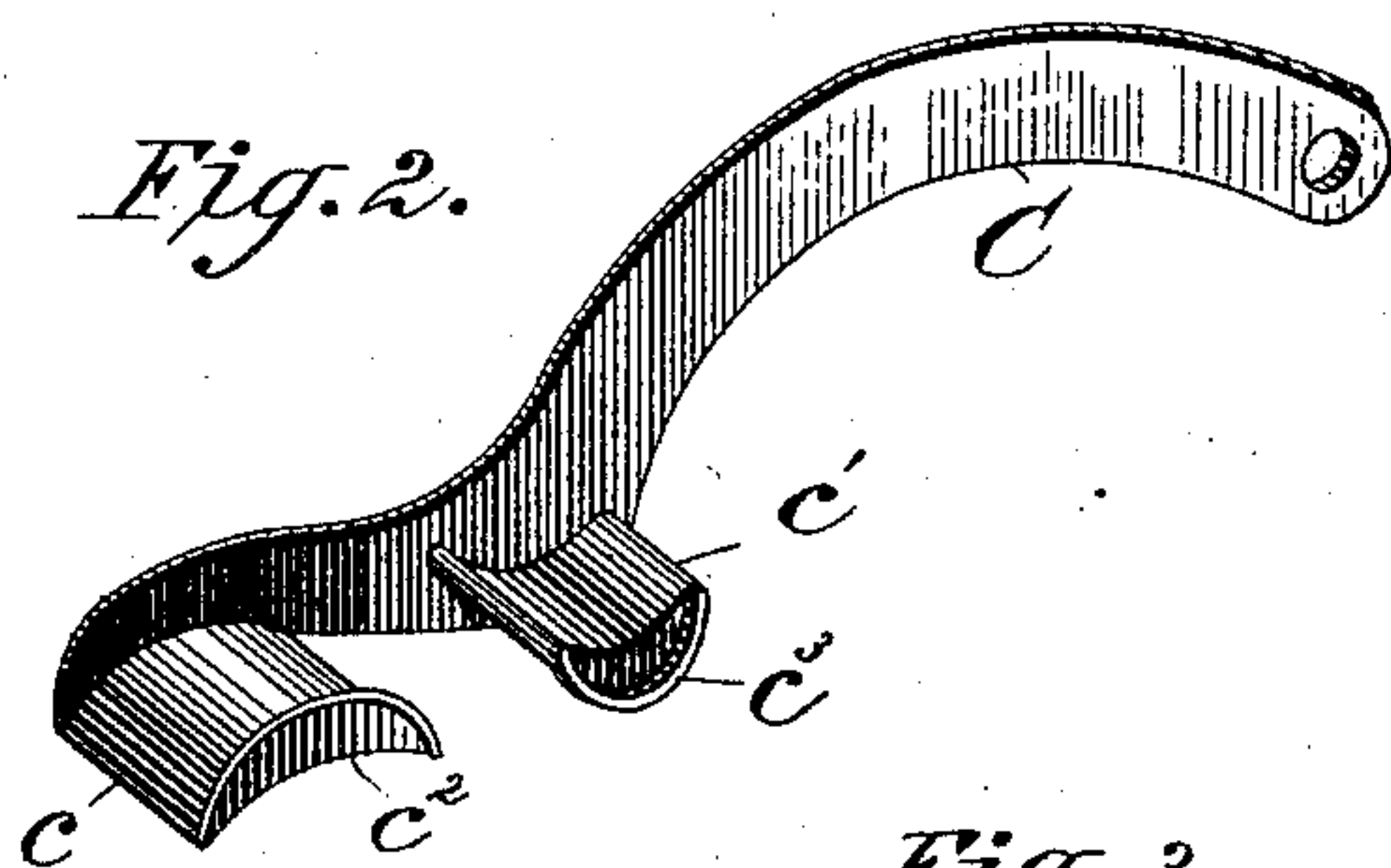
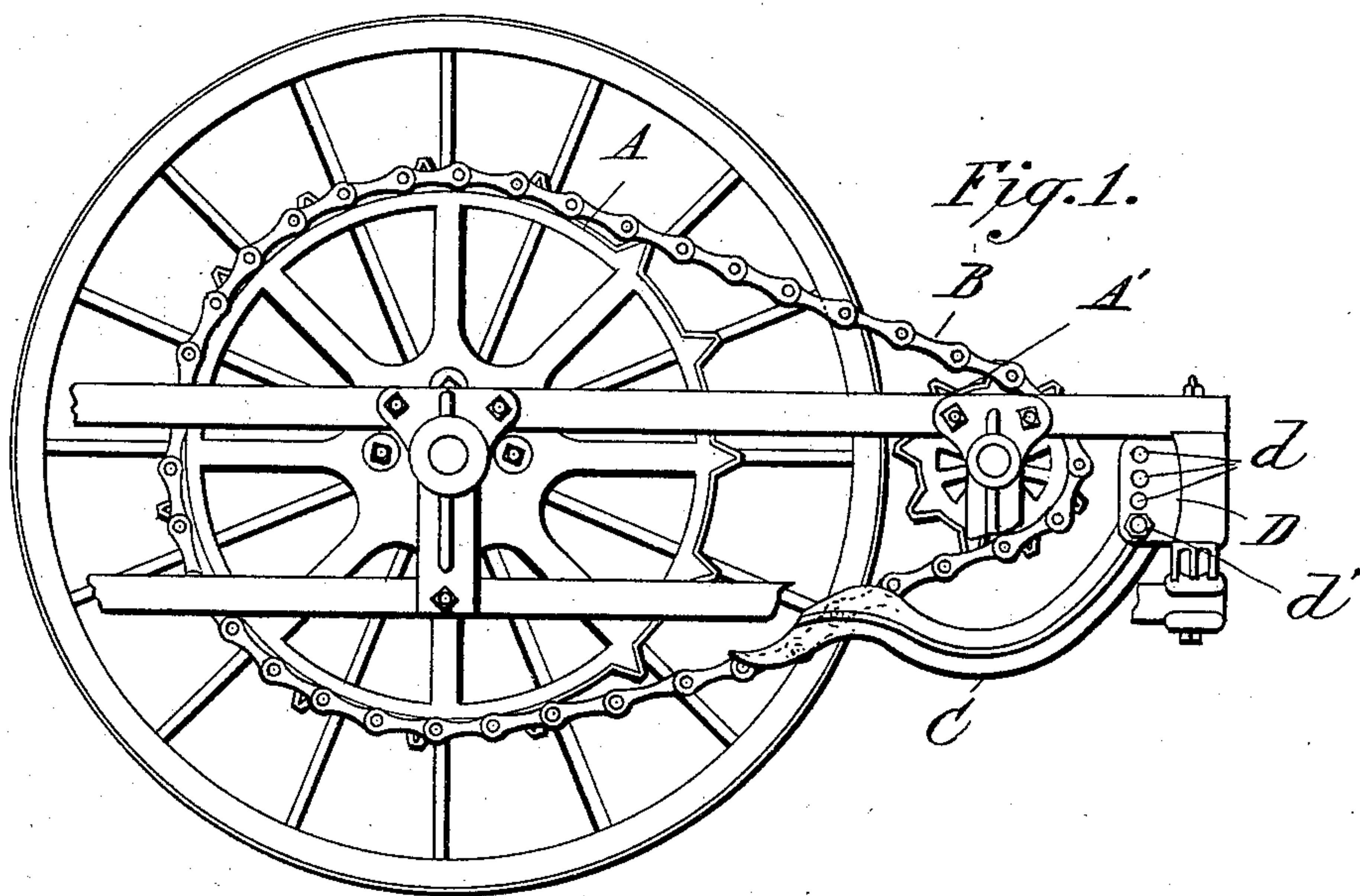


(No Model.)

O. COOLEY.
CHAIN BELT TIGHTENER.

No. 389,835.

Patented Sept. 18, 1888.



Witnesses:
W. M. Storrell
E. W. Waterman

Inventor:
Oswell Cooley
By G. W. Storrell

UNITED STATES PATENT OFFICE.

ORVILLE COOLEY, OF BATAVIA, NEW YORK, ASSIGNOR TO THE JOHNSTON HARVESTER COMPANY, OF SAME PLACE.

CHAIN-BELT TIGHTENER.

SPECIFICATION forming part of Letters Patent No. 389,835, dated September 18, 1888.

Application filed November 9, 1887. Serial No. 254,720. (No model.)

To all whom it may concern:

Be it known that I, ORVILLE COOLEY, a citizen of the United States, residing at Batavia, in the county of Genesee and State of New York, have invented a new and useful Chain-Belt Tightener, of which the following is a specification.

My invention relates to improvements in chain-belt tighteners in which a flat open-link chain is used in conjunction with toothed sprocket-wheels, the teeth of which engage the chain entering the open links, and by which the power is transmitted to the mechanism to be driven; and the objects of my improvements are to provide a simple device that shall act as a chain guide and tightener, with means for adjusting the same, so as to take up more or less of the slack of the chain, as may be desired. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side view of a chain-driving mechanism with the tightener in working position. Fig. 2 is a detail view of the tightening-lever detached, and Fig. 3 is a plan view of a section of the chain detached.

Similar letters refer to similar parts throughout the several views.

A represents the driving sprocket-wheel, A' the driven sprocket-wheel, and B the chain connecting the sprocket-wheels for transmitting power.

C is a curved lever, having semicircular lugs c c' projecting laterally from the free end of the lever, the one c being upon the extreme end of the said lever, while c' is located nearer the pivotal end of the same.

c^2 is a flange rising from the convex side of lug c , while c^3 is a like flange depending from the convex side of lug c' .

D is a bracket, having vertically-placed adjusting-holes d for the reception of the pivot-bolt d' , upon which the lever C is hung, so as to allow of an up-and-down motion to the lug or free end thereof, the operation of which will now be described.

The sprocket-chain is placed upon the sprocket-wheels, encircling the same, and is also made to pass between the lugs c c' , being

over one lug and underneath the other one, the said chain being kept from lateral displacement by the flanges c^2 c^3 upon the one side and by the lever C upon the reverse side, so that the chain at all times remains in coactive position with the tightening-lever, and when in motion runs between the lugs, but causing the chain to run upon an angle more or less acute, as the pivotal end of the lever is raised or lowered.

It is well known that flat-linked sprocket-chains having the numerous joints necessary for their work are liable to become stretched by long use, and in order that the slack may be taken up I have provided a bracket, D, having several adjusting-holes placed in a vertical line, so that as the chain becomes lengthened the bolt d' can be removed and the pivotal end of the lever raised, allowing the bolt to be placed in a hole higher up, thus bending the chain, and causing it to run upon an angle more acute, thereby taking up the slack, as will be readily understood without further description. Herein I have shown the tightener as applied to a harvester and connected to the driving-wheel thereof; but I do not wish to confine myself to the specific mechanism shown, as the tightener can be used upon a chain of any desired length or for driving any kind of machinery to which it is applicable.

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

1. The combination of the sprocket-chain, the sprocket-wheels, and the pivoted tightening-lever having the convex lugs projecting laterally from one side near the free end thereof, and between which lugs the chain passes, in the manner described, and for the purpose hereinbefore set forth.

2. The combination, with the sprocket-wheels, sprocket-chain, and pivoted lever, of the bracket D, having the lever-adjusting holes, and bolt d' , substantially as described, and for the purpose hereinbefore set forth.

ORVILLE COOLEY.

Witnesses:

G. W. FORD,

E. J. MOCKFORD.