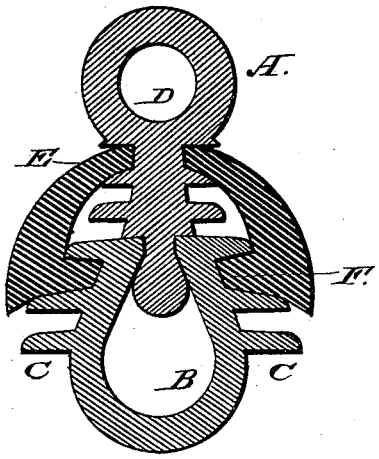
(No Model.)

C. H. MILLER.

PUMP BUCKET.

No. 304,442. Patented Sept. 2, 1884.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CHARLES H. MILLER, OF COLUMBUS, OHIO.

PUMP-BUCKET.

SPECIFICATION forming part of Letters Patent No. 304,442, dated September 2, 1884.

Application filed March 18, 1884. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. MILLER, a citizen of the United States, and a resident of Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Expansive Buckets for Chain-Pumps; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, which forms a part of this specification, and which represents a vertical sectional view of my expansive bucket.

My invention has relation to an improvement in expansive buckets for chain-pumps; and it consists in the improved construction of a bucket of that class, as will be hereinafter more fully described and claimed.

In the accompanying drawing, A denotes an eye formed upon the end of a shank, D, having annular parallel flanges C, and swiveled with its lower end in the top of the pear-shaped body B, which likewise is formed with an eye at its end, and is provided with a number of parallel annular flanges, C, the said flanges commencing at the narrowest part of the stem and continuing to the widest part of the body.

An elastic hollow packing, E, of rubber or other suitable material, of a semi-globular shape, and having a hole at its apex for the insertion of the stem, is slipped with the said hole over the stem, fitting between two of the flanges upon the same, while an inwardly-projecting flange, F, upon its lower edge, or the edge of its widest portion, fits between two flanges upon the body. By having the stem swiveled in the body the necessity of having independent swivels interposed between the buckets in the chain for the purpose of taking twists out of the same and for preventing its kinking is obviated.

This operation is as follows: In commencing the use of the bucket, the elastic packing is placed on the link, with the apex in the upper space on the stem D, and with its inner projecting flange, F, inclosing the smallest of the flanges C on the pear-shaped base B, and, as the packing gradually wears, it is expanded by springing the flange F down over and upon the larger flanges C on the pear-shaped base successively, at the same time bringing the apex of the packing down to the next space on the stem D. It will be seen that by this means the elastic bucket is expanded or its diameter increased, so that it may be adjusted to fit tightly inside the pump tube or chamber. This adjustment can be effected by any unskilled labor in a moment of time, without detaching the bucket from the chain and without separating its parts.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

The combination, in an expansive chain-pump bucket, of the pear-shaped body or core having a series of outwardly-projecting steps or flanges, the stem swiveled upon said body and having similar flanges, the loop fixed upon or forming part of the swiveled stem, and the elastic semi-globular packing provided with an inwardly-projecting annular flange adapted to be sprung over and upon the steps or flanges of the central body or stem, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

CHARLES H. MILLER.

Witnesses:

D. C. WELLING,

T. H. MCCOY.