(No Model.)

L. M. RUMSEY.

BUCKET FOR CHAIN PUMPS.

No. 263,229. Patented Aug. 22, 1882.

Fig. 1.

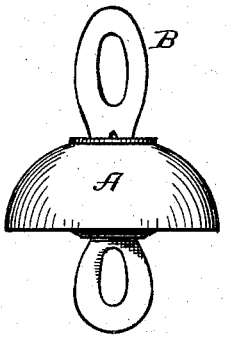

Fig. 2.

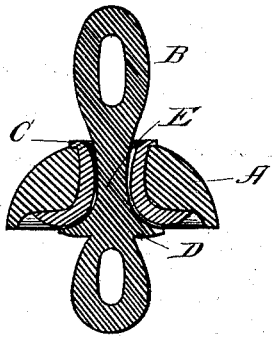

Fig. 6.

Fig. 7.

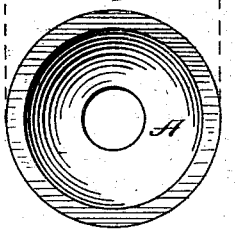

Fig. 3.

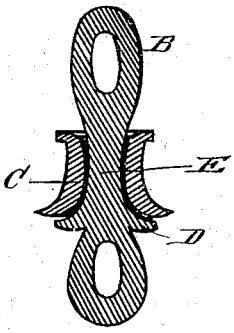

Fig. 4.

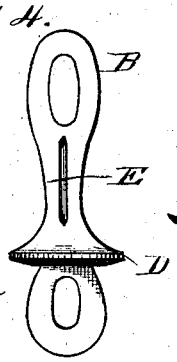

Fig. 5.

Witnesses:
William D. Shank
John D. Schnelle

Inventor:
L. M. Rumsey

UNITED STATES PATENT OFFICE.

LEWIS M. RUMSEY, OF ST. LOUIS, MISSOURI.

BUCKET FOR CHAIN-PUMPS.

SPECIFICATION forming part of Letters Patent No. 263,229, dated August 22, 1882.

Application filed May 2, 1882. (No model.)

To all whom it may concern:

Be it known that I, LEWIS M. RUMSEY, a citizen of the United States, residing at St. Louis, in the county of St. Louis and State of Missouri, have invented certain new and useful Improvements in Buckets for Chain-Pumps; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same.

My improvement relates to that class of buckets which are formed of rubber or other elastic material; and it consists of certain details of construction, which will be hereinafter fully described.

Referring to the drawings forming a part of this specification, Figure 1 is an elevation of the bucket complete. Fig. 2 is a vertical section of the bucket as shown in Fig. 1. Fig. 3 is vertical section with the rubber removed. Fig. 4 is an elevation of the metal link. Fig. 5 is a sectional view of the loose flaring tube or shell which surrounds the link. Fig. 6 is an elevation of the rubber, and Fig. 7 is an inverted plan of the same.

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

In constructing the bucket or button I first form the link by casting or otherwise; and it consists of a central portion or stem, E, loops or eyes B B, one at each end, and a valve, D. I then cover the central portion or stem, E, with graphite or other analogous material made into a paste of suitable thickness, as shown in Fig. 3, and I cast the flaring tube or shell C around the stem, leaving the loops or eyes projecting at each end and the valve D below the mouth of the tube. The pump-chain is secured in the loops or eyes. The shell or tube C is cast with flaring or bell-shaped ends, the lower one being preferably larger, or with a wider flange, than the upper one. The metal link is provided with an annular flange, D, corresponding in shape with the lower flaring mouth of the tube C. This flange D forms a valve which closes or opens the mouth of the tube, for a purpose which will be presently explained. After the shell is cast around the stem and valve the graphite or other material is rattled out, leaving the tube loose on the stem, as plainly shown in Fig. 2. The rubber portion A of the bucket, which may be of ordinary form, is provided with a central perforation, is forced over the loops and the loose tube to its place, as shown in section in Fig. 2. It will be seen that the tube or shell C has a lower flange of sufficient width to support and carry up the rubber, notwithstanding the weight of water that may rest upon it. The upper flange is of sufficient width to prevent the rubber from falling off the tube while the bucket is descending. The construction is such that when the rubber bucket is passing up the pump-tube the valve D closes the passage in the tube or shell C, creating a perfect vacuum or suction in the pump-tube. When the bucket stops the valve D is forced down by the weight of the chain and the column of water over it, opening the passage in the tube C, through which the water above the rubber bucket will pass back into the well or cistern.

I am aware of the patents of O. O. Witherell, J. S. Wilcox, and John A. Curchill, all of which I own, and I make no claim to anything shown in said patents; but

What I do claim, and desire to secure by Letters Patent, is—

1. In a chain-pump bucket, the central stem or link provided with eyes at its ends and with an annular valve-flange, and having cast loosely thereon a flaring tube or shell which is adapted to receive the rubber bucket, as set forth.

2. A chain-pump bucket having the central stem or link provided with eyes at its ends and with an annular valve-flange, and having cast loosely thereon a flaring tube or shell, in combination with the rubber bucket or button, as set forth.

L. M. RUMSEY.

Witnesses:
WILLIAM D. SHANK,
JOHN D. SCHNELLE.