

G. BLYTHE.
CHAIN PUMP.

No. 181,401.

Patented Aug. 22, 1876.

Fig 1

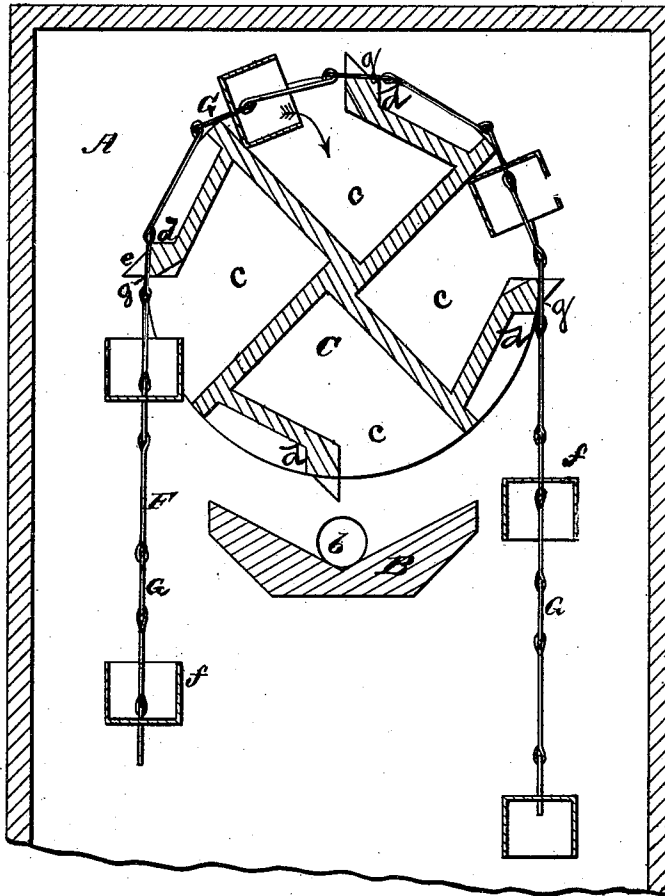
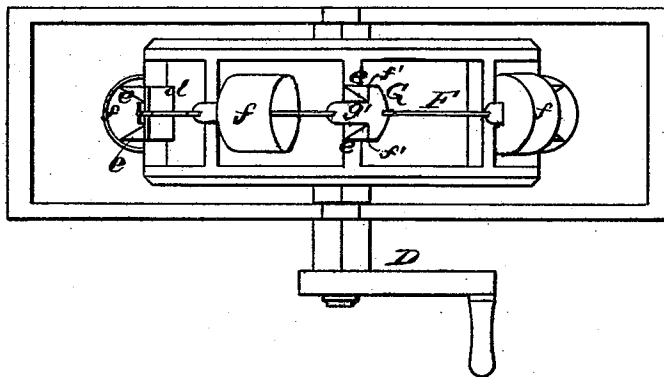


Fig. 2.



WITNESSES

Wm. J. Utley.
E. H. Bates

INVENTOR,

George Blythe.
Gilmore, Smith & Co.
ATTORNEYS.

UNITED STATES PATENT OFFICE.

GEORGE BLYTHE, OF CHILLICOTHE, MISSOURI.

IMPROVEMENT IN CHAIN-PUMPS.

Specification forming part of Letters Patent No. **181,401**, dated August 22, 1876; application filed May 27, 1876.

To all whom it may concern:

Be it known that I, GEORGE BLYTHE, of Chillicothe, in the county of Livingston and State of Missouri, have invented a new and valuable Improvement in Chain-Pumps; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a vertical central section of my chain-pump, and Fig. 2 is a plan view of the same.

This invention relates to chain-pumps for raising and discharging liquids; and it consists in the peculiar construction of a cellular discharging-wheel, and in the means employed for attaching thereto the chain which carries the bucket, as hereinafter particularly set forth and claimed.

In the accompanying drawings, A designates the frame of the pump, within which is fixed the V-shaped receiver B, that discharges the raised water through a tube, *b*. Within and near the top of the frame A is journaled a wheel, C, which is operated by a crank, D, and which carries a chain, F, and buckets *f*. The periphery of wheel C is provided with cells *c c*, which resemble somewhat the shape and arrangement of cells or buckets of an overshot-wheel. The periphery of wheel C is also provided with rigidly-attached blocks *d*, as shown in Fig. 1 of the drawing, which

are recessed in the middle so as to form guides *e e*. The blocks of these guides *e e* are slightly notched at *f' f'*. The chain F is provided at suitable intervals with T-shaped plates G. The shank *g* of each one of said plates G is adapted to lie between the guides *e e* on wheel C, and the cross-pieces *g' g'* of said T-shaped plates G are adapted to catch into notches *f' f'* on the backs of guides *e e*. By these devices the dipping-buckets *f f* are kept always in a proper position. The water is regularly poured out of the buckets *f f* into the cells *c c*, as each one of said buckets, successively, reach the highest point of its revolution, and the water is discharged from the cells *c c* into the hopper B as each one of said cells *c c* reaches the lowest point of its revolution.

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

1. Wheel C, provided with cells *c c* and guides *e e*, which are notched at *f' f'*, substantially as and for the purpose set forth.

2. Wheel C, provided with cells *c c*, and notched guides *e e*, in combination with bucket-chain F, provided with T-shaped plates G, as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

GEORGE BLYTHE.

Witnesses:

JAS. W. MABURY,
BARON T. DALY.