

(No Model.)

M. D. TEMPLE.

PUMP.

No. 285,443.

Patented Sept. 25, 1883.

Fig. 1.

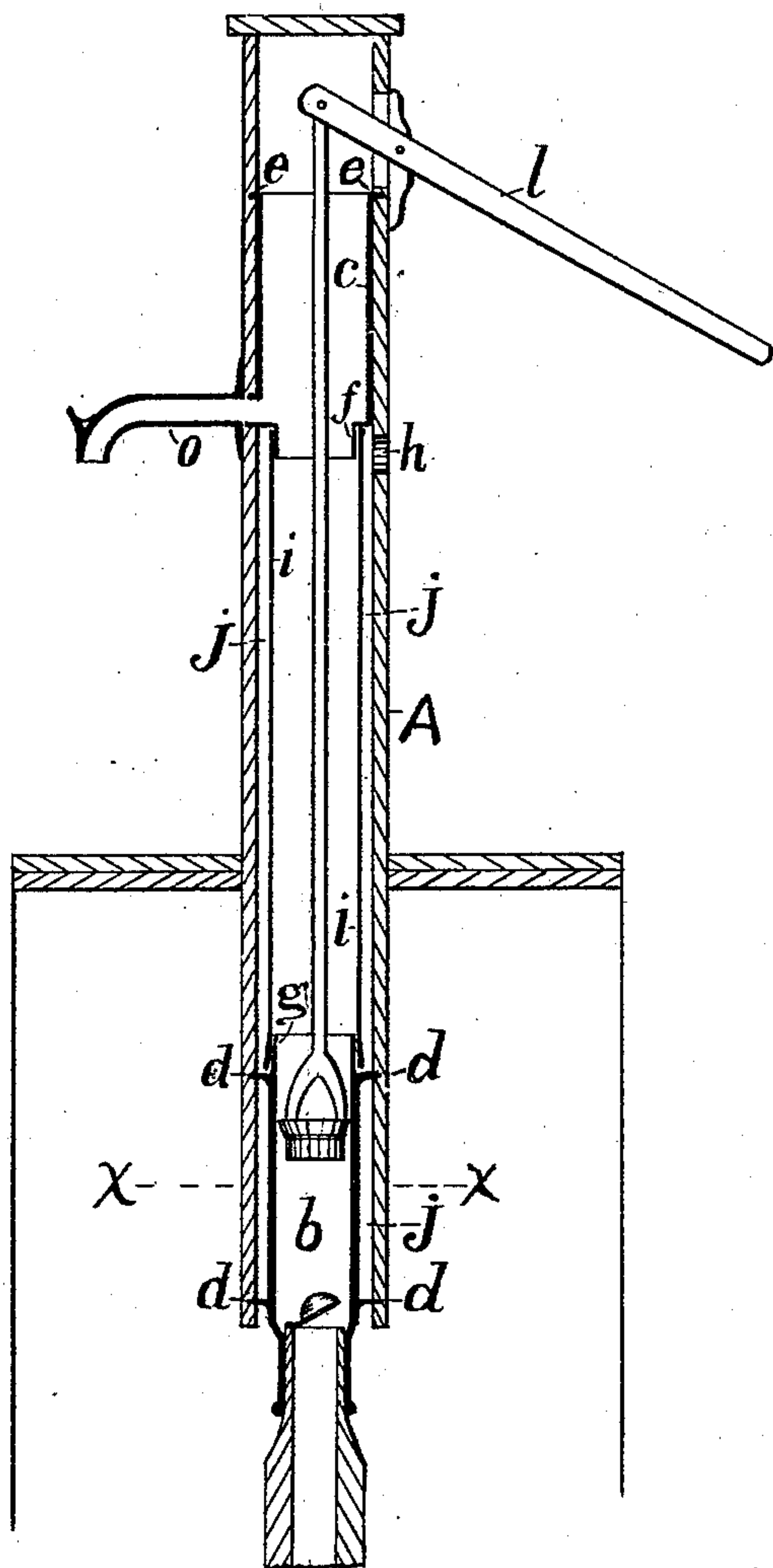
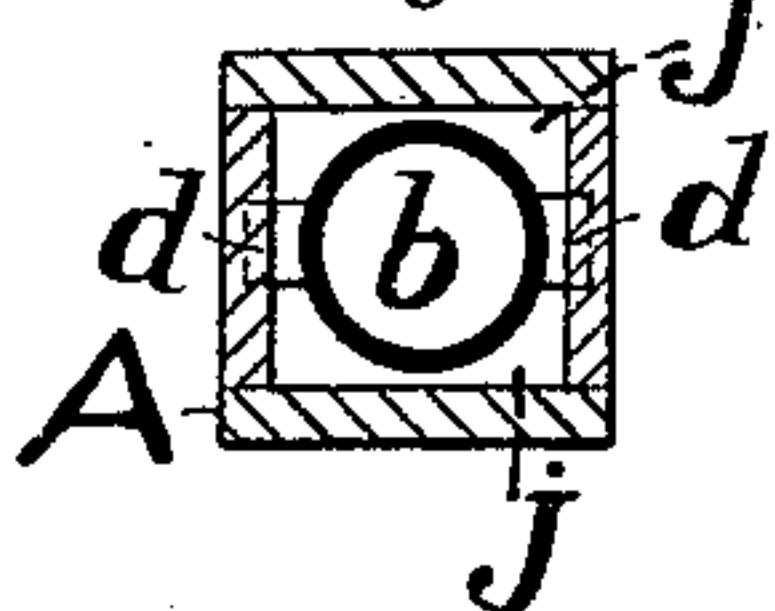


Fig 2



Witnesses.

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PUMP.

SPECIFICATION forming part of Letters Patent No. 285,443, dated September 25, 1883.

Application filed December 2, 1880. (No model.)

To all whom it may concern:

Be it known that I, MORRIS D. TEMPLE, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful
5 Improvements in Pumps; and I hereby declare the following to be a full, clear, and exact description thereof, which will enable others skilled in the art to which my invention appertains to make and use the same, reference
10 being had to the accompanying drawings, forming a part hereof, and in which—

Figure 1 represents a vertical section taken longitudinally through its center. Fig. 2 represents a horizontal section of the bucket-
15 chamber and the exterior casing on the line *xx*.

Like letters of reference indicate like parts.

In the manufacture of wooden pumps it has heretofore been the universal practice to select
20 a log or stick of timber of the necessary dimensions and bore it out, so as to form the pump-barrel, in which the pump-bucket worked, and to which the spout and handle are attached. It is well known that to make a good
25 pump timber of special kinds and extra quality has to be used. Of these poplar, cucumber, and a few allied kinds of wood were the only ones found to answer the requirements, which were that it would not rot readily, could easily
30 be bored, and would not check or crack open when exposed to the sun and weather. The natural scarcity and constantly increasing demand has greatly increased the price of such timber, and in order to produce a pump at
35 a more reasonable price, and at the same time of equal or better quality, I construct my pump as follows, viz:

For the pump-barrel I construct a box, A, of common pine boards or plank, into the lower
40 end of which I fit a cylindrical cast-iron bucket-chamber, *b*, which is firmly held in the box A by the lugs *d* let into notches made in the box. The upper end of the chamber *b* has a collar,
45 *g*, upon which is fitted a tube, *i*, made of any light material, as sheet-zinc, galvanized iron, or papier-maché, &c., and fitted to the collar
50 *f* of the chamber *c*.

The chamber *c* is made, preferably, of cast-iron, with flat sides, so as to fit snugly to the
55 inside of the box A, in which it is held in place by a small flange, *e*, around its edge, let into the sides of the box. The spout *o* may be cast

with the chamber *c* in one piece, or it may be separately attached to the casing A, as shown. The chamber *c* is made large, with the spout
60 *o* at its lower end, so as to form a reservoir for the water when it is pumped faster than the spout will let it flow, and thus prevent the box A from becoming wet.

Immediately under the reservoir *c* is a hole, *k*, which serves as a ventilator to the well, the
65 air passing freely around the pipe *i* and the bucket-chamber *b* along the air-space *j*. The opening *h* may be closed in cold weather, which will then transform the space *j* into a dead-air space, and thus, to a great extent,
70 prevent the liability of the water freezing in the pump. The handle *l* is attached to the casing A.

A pump constructed as herein shown can be made cheaper than any wooden pump now
75 made, for the reason that the bucket-chamber, which must necessarily be specially constructed and be of better material than the other parts of the pump, is made of no larger dimensions than necessary to work the bucket
80 therein. The reservoir, with its spout above, can also be made very light, and will last a long time, and is so arranged as to prevent the wooden case from becoming wet, which is thereby better preserved, and the bucket-
85 chamber and reservoir above are connected by a tube of papier-maché or other equally light and cheap material.

The bucket-chamber, reservoir, and connecting-tube being each constructed in the
90 lightest and cheapest manner possible, and yet so as to completely and perfectly answer every requirement, I am enabled to make the surrounding case or box which holds these several parts together of very cheap and ordinary ma-
95 terial, which will answer fully every requirement, and by thus producing each essential individual part of my pump in the cheapest possible manner it is obvious that such a pump
100 can be made to the consumer for considerably less money than any like pump heretofore offered in the market. The several parts are also very readily placed in position, and the box or pump-case may be nailed and all the parts put together by any ordinary work-
man; and, further, it may be shipped in the "knockdown" at less expense.

It will be observed that the diameter of the tube *i* is made larger than the diameter of the bucket, so as to pass it from the top through into the bucket-chamber, which is an important feature when the bucket or valve needs repairs, as it can be withdrawn without disturbing any of the other parts of the pump.

What I claim is—

1. A pump consisting of a bucket-chamber secured to the lower and interior end of a square box, and to or near the upper end of said box is secured a chamber, provided at its base with a spout, said chamber and bucket-chamber being connected by a tube of papier-maché or equivalent material, and all secured and held firmly in place by means of a surrounding box, substantially as and for the purpose specified.

2. A pump-barrel provided with a bucket-chamber at or near its lower end, provided with lugs *d*, which hold it in its place in its wooden casing A, a collar, *g*, and a separate water-reservoir extending upward immediately from below the spout of the reservoir, and provided with a collar, *f*, said bucket-chamber and reservoir being united together by a tube fitted to said collars, and all securely held in place by a surrounding wooden casing, constructed substantially as and for the purpose specified.

3. A pump consisting of a bucket-chamber provided with a collar, a separate reservoir extending upward immediately from below the spout of the reservoir, and a tube fitting

onto the collars and connecting the bucket-chamber and reservoir, so arranged, in combination with a surrounding casing, as to form a ventilating or dead-air space, controlled by a valve, all below the water-reservoir, substantially as and for the purpose specified.

4. A pump consisting of the parts *b*, *i*, and *c*, held within the box A, so as to form the air-space *j* below the reservoir *c*, and provided with a valve or opening, *h*, all constructed and arranged to operate substantially as and for the purpose specified.

5. As a new article of manufacture, a pump consisting of a box, A, constructed of plank, in the interior and lower part of which is held a bucket-chamber by means of lugs fitted into the sides of the box, a reservoir above the spout, connected to the bucket-chamber by means of a pipe, and so as to form an air-space below the reservoir around the tube and bucket-chamber, and an opening in the side of the box below the reservoir, substantially as herein shown and described.

6. A pump formed of the board case A, inclosing and securely holding at its lower end a bucket-chamber, *b*, having a collar, *g*, and at its upper end a chamber, *c*, provided with a spout, *o*, and a collar, *f*, said parts *b* and *c* united by a pipe, *i*.

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Witnesses:

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