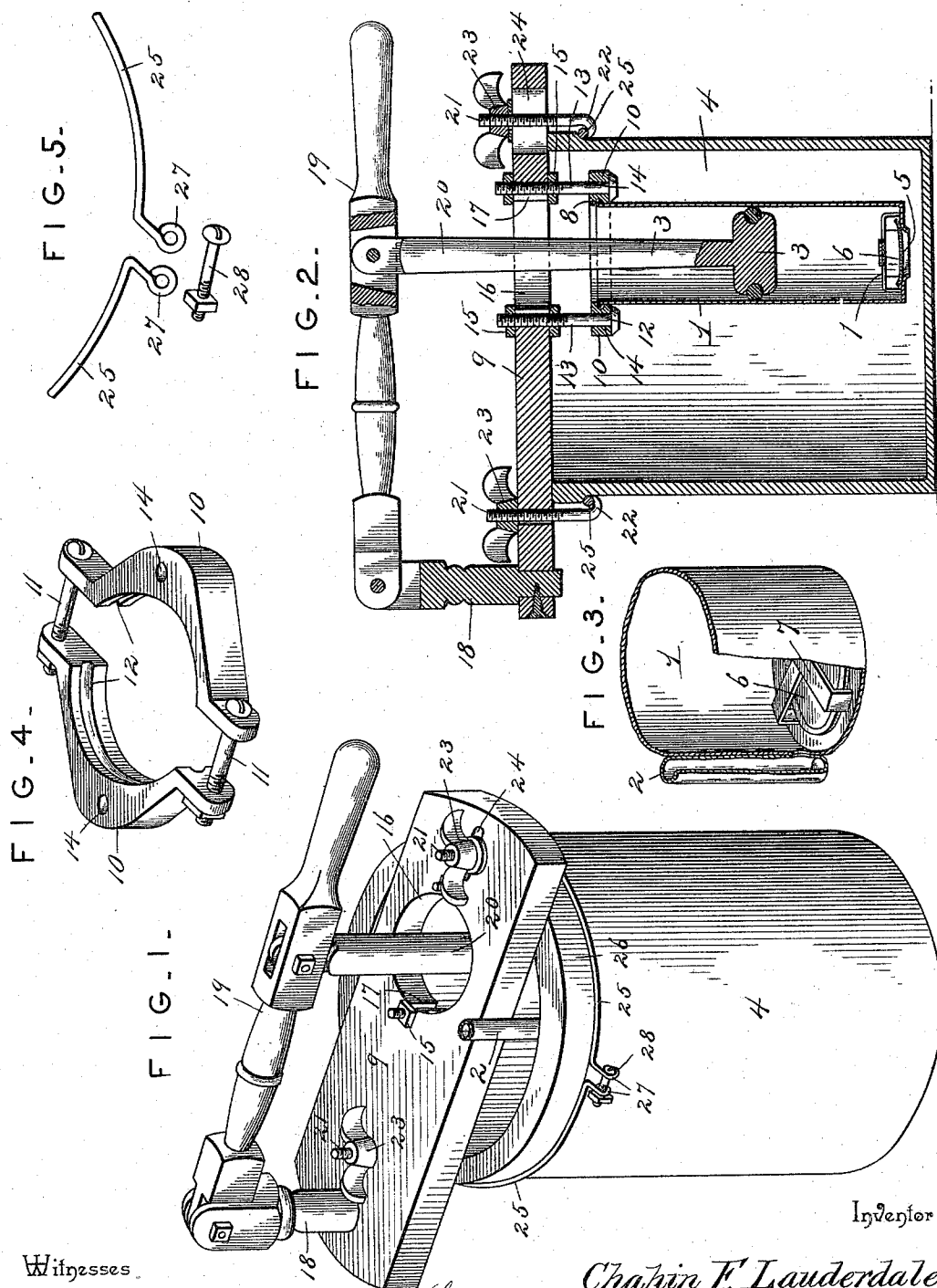


(No Model.)

C. F. LAUDERDALE.
SODA WATER PUMP.

No. 580,322.

Patented Apr. 6, 1897.



Witnesses
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UNITED STATES PATENT OFFICE.

CHAPIN F. LAUDERDALE, OF FAYETTE, OHIO.

SODA-WATER PUMP.

SPECIFICATION forming part of Letters Patent No. 580,322, dated April 6, 1897.

Application filed March 16, 1896. Serial No. 583,460. (No model.)

To all whom it may concern:

Be it known that I, CHAPIN F. LAUDERDALE, a citizen of the United States, residing at Fayette, in the county of Fulton and State of Ohio, have invented a new and useful Soda-Water Pump, of which the following is a specification.

This invention aims to provide an improved apparatus for elevating and forcing soda-water to any required point for dispensing, to provide for the attachment of the pumping apparatus to crocks of varying size, and to devise a mechanism which can be firmly secured to a crock or vessel and which will be simple, compact, and effective for the purpose designed.

For a full understanding of the merits and advantages of the invention reference is to be had to the accompanying drawings and the following description.

The improvement is susceptible of various changes in the form, proportion, and the minor details of construction without departing from the principle or sacrificing any of the advantages thereof, and to a full disclosure of the invention an adaptation thereof is shown in the accompanying drawings, in which—

Figure 1 is a perspective view of the improved apparatus. Fig. 2 is a vertical central section thereof. Fig. 3 is a detail view of the lower portion of the pump-barrel. Fig. 4 is a detail view of the clamp. Fig. 5 is a detail view of the ends of the wire and the bolt for connecting them.

Corresponding and like parts are designated in the following description and the several views of the drawings hereto attached by the same reference-characters.

The apparatus comprises, essentially, a pump-barrel 1, having a side delivery-pipe 2, which communicates therewith at its lower end, a plunger 3, operating in the pump-barrel, and provisions for attaching the pumping means to a crock or vessel 4, in which is placed the soda-water to be elevated or forced to the required point.

An opening 5 is provided in the bottom of the pump-barrel 1 and is closed by an upwardly-opening valve 6, guided in its movements by a cage 7 of ordinary construction and which is secured to the bottom of the pump-barrel adjacent to the edges of the

opening 5. The valve 6 is a metal disk having a concavo-convex form and placed with its convex side lowermost, so as to enter and close the opening 5. The pump-barrel may be a short length of tubing or formed in any convenient way, and, as shown, is constructed of sheet metal, which has an outer lip or wire 8 at its top end, by means of which the pump-barrel is reinforced and strengthened at its upper end and provision had for securing it to the clamp employed for connecting it with a cross-piece 9. The clamp comprises similarly-formed yoke-pieces 10, which have their terminals extending outward and apertured for the reception of bolts 11, by means of which the yoke-pieces are clamped against the sides of the pump-barrel. Grooves 12 are formed in the inner sides of the yoke-pieces 10 to receive the outer lip or wire 8 at the upper end of the pump-barrel, so as to prevent any slipping of the clamp upon the pump-barrel after these parts are properly placed together. Bolts 13 pass through openings 14, formed midway of the yoke-pieces 10, and engage with the cross-piece 9, and each bolt is supplied with a pair of adjusting-nuts 15, by means of which the relative position of the bolts 13 and the parts carried thereby can be varied. The adjusting-nuts 15 come above and below the cross-piece 9. Hence it is obvious that by backing the one and turning up the other the said bolts 13 can be positively adjusted so as to regulate the height of the pump-barrel within the crock or vessel 4. The cross-piece has an opening 16 in vertical alinement with the pump-barrel 1, so as to admit of the removal of the plunger when required and the replacement of the same into the pump-barrel when the apparatus is to be used. Notches 17 extend into the opening 16 and receive the vertical bolts 13. Hence the pump-barrel can be readily detached from the cross-piece and applied thereto at a moment's notice.

The cross-piece 9 may be a bar or other suitable support and is designed to rest upon the upper edge of the crock or vessel 4 and has a standard 18 at one end, to which is pivotally connected a lever 19, provided for operating the plunger, and which in turn has pivotal connection with the plunger-stem 20. The cross-piece is secured to the crock or vessel

in any convenient way, and, as shown, bolts 21, having hooks 22 at their lower ends, are employed and pass through vertical openings formed in the said cross-piece and are provided with thumb-nuts 23 for tightening and clamping the cross-piece in place. One of the openings is elongated and provides a slot 24, thereby admitting of the bolts 21 being separated or brought closer together, according to the diameter of the crock or vessel to which the apparatus is to be fitted.

In order to prevent the upper end or rim of the crock from being chipped or broken by the hooks 22, a stout wire 25 encircles the crock immediately below its rim 26, and the ends of this wire are bent outward and terminate in eyes 27, through which passes a bolt 28 to secure the wire about the crock and subject it to sufficient tension to prevent it being passed by the rim 26 when the bolts 21 are tightened. The provision of the wire 25 distributes the gripping action of the hooks 22 about the upper end of the crock. Hence the latter is not liable to fracture.

Having thus described the invention, what is claimed as new is—

1. In soda-water apparatus, the combination of a crock or vessel, a cross-piece having an opening and notches extending into the opening, means for securing the cross-piece to the vessel, a pumping mechanism comprising a pump-barrel located in register with and adapted to have the plunger pass through the opening of the cross-piece, a clamp secured to the pump-barrel, bolts having connection with the clamp and having their threaded portions entering the aforesaid notches, and adjusting-nuts mounted upon the bolts above and below the said cross-piece, substantially as and for the purpose set forth.

2. In soda-water apparatus, the combination of a crock or vessel, a pumping mechanism comprising a pump-barrel having an outwardly-extending portion, a clamp grooved

on its inner side to receive the said outwardly-extending portion of the pump-barrel, a cross-piece fitted to the upper end of the crock or vessel, and means for adjustably connecting the clamp with the said cross-piece, substantially in the manner set forth.

3. In soda-water apparatus, the combination of a crock having an outer rim, a wire encircling the crock below the rim and having its end portions bent outward and terminating in eyes, a bolt passing through the said eyes for clamping the wire about the crock, a cross-piece bearing a pumping mechanism, bolts operating through openings in the cross-piece and having hooks at their lower ends to engage with the said wire, and adjusting-nuts mounted upon the threaded ends of the bolts above the cross-piece, substantially as and for the purpose set forth.

4. A soda-water apparatus comprising a crock or vessel, a cross-piece provided with means for securing it to the said crock or vessel, a pump-barrel having a valved opening in its bottom and a delivery-pipe communicating therewith at its lower end, and formed with an outer lip at its upper end, a clamp comprising yoke-shaped pieces grooved on their inner sides to receive the outer lip of the pump-barrel, means for clamping the yoke-pieces against the sides of the pump-barrel, bolts supported in the yoke-shaped pieces and adjustably connecting them with the aforesaid cross-piece, a plunger, and a lever pivotally supported upon the cross-piece and having connection with the stem of the plunger, substantially as described.

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

CHAPIN F. LAUDERDALE.

Witnesses:

W. A. CORKLE,
F. W. WOOD.