

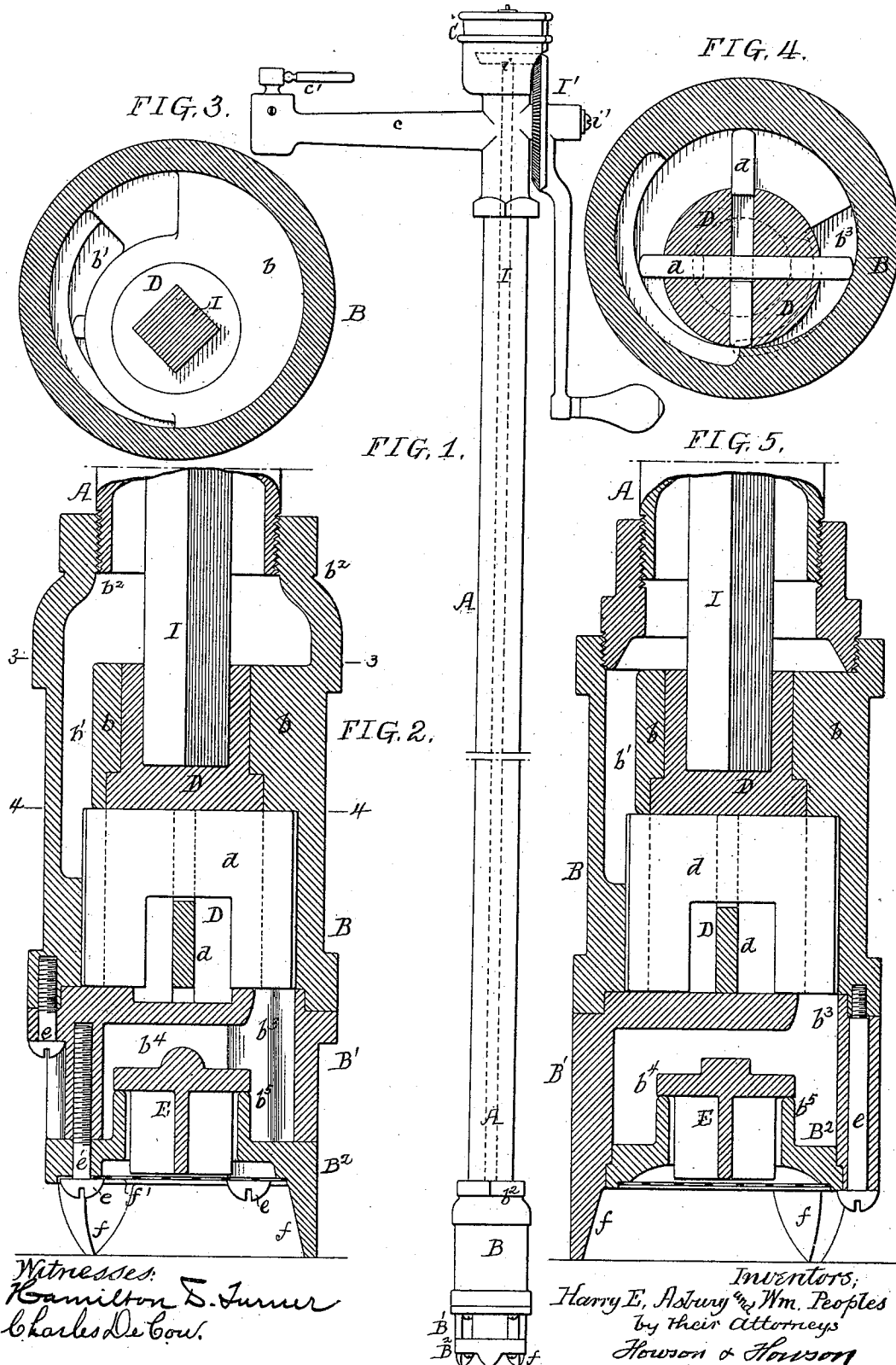
No. 619,653.

Patented Feb. 14, 1899.

H. E. ASBURY & W. PEOPLES.
PUMP FOR PUMPING MOLASSES, &c.

(Application filed Aug. 5, 1897.)

(No Model.)



UNITED STATES PATENT OFFICE.

HARRY E. ASBURY AND WILLIAM PEOPLES, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNORS TO THE ENTERPRISE MANUFACTURING COMPANY OF PENNSYLVANIA, OF SAME PLACE.

PUMP FOR PUMPING MOLASSES, &c.

SPECIFICATION forming part of Letters Patent No. 619,653, dated February 14, 1899.

Application filed August 5, 1897. Serial No. 647,230. (No model.)

To all whom it may concern:

Be it known that we, HARRY E. ASBURY and WILLIAM PEOPLES, citizens of the United States, and residents of Philadelphia, Pennsylvania, have invented certain Improvements in Pumps for Pumping Molasses, &c., of which the following is a specification.

The object of our invention is to simplify the construction of pumps used especially for pumping molasses and like liquids from barrels.

Our invention is particularly adapted for use in connection with the pump for which application was filed of even date herewith by John Wilson Brown, Jr., and relates particularly to improvements in the pump proper. The registering mechanism used by us is the same as that described in said application, and we therefore lay no claim to this feature.

In the accompanying drawings, Figure 1 is a side view, partly in section, of a molasses-pump illustrating our invention. Fig. 2 is a vertical sectional view of the pump. Fig. 3 is a section on the line 3 3, Fig. 2. Fig. 4 is a section on the line 4 4, Fig. 2, and Fig. 5 is a view of a modification.

A is the stem of the pump.

B is the pump-chamber, containing the rotary pump.

C is the head, containing the registering mechanism, and *c* is the nozzle, provided at its outer end with a faucet *c'*.

The pump-casing B has a partition *b*, in which the hub D finds its upper bearing, and in this partition is the outlet-port *b'* from the pump-chamber. The upper end of the casing is preferably reduced in diameter and has a threaded portion *b²*, to which is secured the end of the pump-stem. The hub D finds its lower bearing in a removable section *B'*, secured to the casing by screws *e e*, and between this section and the partition are the sliding blades *d d* of the pump, which slide in and turn with the hub D. The hub is set to one side of the center, so as to give the blades the proper movement and yet confine the casing to a comparatively small diameter.

A passage *b³* is formed in the removable section *B'* and connects the inlet-chamber *b⁴*

with the pump-chamber. The inlet-chamber 50 is formed by a section *B²*, secured to the section *B'* by screws *e' e'*. The section *B²* has a raised seat *b⁵*, to which is adapted a valve E. The bearing-surface of the valve is flat, while the edge of the raised seat *b⁵* is rounded, so that the bearing-surface of the valve is small, thus preventing the accumulation of fibers or other foreign material between the valve and seat. The check-valve E opens inward, so that the pump can freely draw molasses; but the valve prevents the escape of liquid from the pump and inlet-chamber, so that the pump will not have to be primed every time it is used. By having the valve below the rotary pump we rely on the valve to keep the pump-chamber always filled and the blades can fit comparatively loose. The section *B²* has points or feet *f*, which rest upon the lower head of the barrel, so that when the pump is secured to the upper head at the bung-hole it is rigid. 55 60 65 70

Secured to the section *B²*, preferably by the two screws *e' e'*, is a perforated plate *f'*, which screens the liquid as it enters the pump and before it reaches the valve. 75

The hub D has a quadrangular opening in its upper end, to which is adapted a rod I, having at its upper end a bevel-pinion *i*, geared to a handled bevel-wheel *I'*, mounted on a stud *i'*. The bevel-pinion *i* is connected to the registering mechanism. 80

In operating the pump after it is secured in the barrel it is first turned so that the liquid will be drawn in by the pumping mechanism and forced into the chamber formed by the stem until it flows from the nozzle, the check-valve and blades will prevent the liquid escaping at the bottom. The mechanism is then in position to register the amount of liquid flowing through the pump, and when it is necessary to pump a certain quantity of liquid the faucet *c'* can be opened and the handle turned. The registering mechanism will indicate the amount of liquid passing through the pump. 85 90 95

In case of a stoppage the pump can be withdrawn from the barrel, and the sections *B²* and *B'* may be removed and cleaned, if nec-

essary, or the entire pump can be readily cleaned when different liquids are to be pumped.

In Fig. 5 we have shown a modification of the casing, in which a reducing-coupling is substituted for the reduced portion of the casing, which in Fig. 2 is made in one piece with the casing itself, and the sections are slightly modified in Fig. 5. For instance, the feet are shown in this view as forming part of the section B', and the confining-screw for securing this section to the casing also holds the section B² in place. The screen in this instance is secured to the section B² by soldering.

We claim as our invention—

1. In a pump for molasses and like material, the combination of the hollow stem adapted to be inserted in a barrel, a pump-casing secured to the lower end of said stem and having an outlet-passage therein communicating with the stem, a removable section secured to the lower part of the casing and having an inlet-passage therein, a pump-hub with sliding pistons within the casing, said hub having its bearings in the casing and in the removable section, means for turning the pump-hub, and a valve located within said removable section directly below the pumping mechanism, substantially as described.

2. The combination of the casing, a hollow stem secured to the same, a chamber in the upper part of the casing communicating with the hollow stem, a pump-chamber with pumping mechanism located within the casing, an outlet-passage at one side of the casing affording communication between the upper

chamber and the pump-chamber, a removable section secured to the lower portion of the casing having a flat portion affording a bearing-plate for the elements of the pumping mechanism and having at one side a passage leading to the pump-chamber, and a second removable section secured to the other removable section and carrying a valve-seat with a valve adapted thereto, substantially as described.

3. The combination in a pump, of the casing, a hub and sliding blades therein, a section secured to the said casing and having a partition, with an inlet-opening therein, a second section secured to the first-mentioned section forming with it an inlet-chamber, said section having a raised valve-seat, a valve adapted thereto, and feet extending from the section, substantially as described.

4. The combination of a pump-casing, hub and sliding blades mounted therein, a section secured to the bottom of said casing and having an inlet-passage, a second section secured to the first-mentioned section by screws and forming an inlet-chamber and having a valve-seat, a valve therefor, a perforated plate on the bottom of the said section held in position by the securing-screws for the second section, substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

HARRY E. ASBURY.
WILLIAM PEOPLES.

Witnesses:

WILL. A. BARR,
JOS. H. KLEIN.