

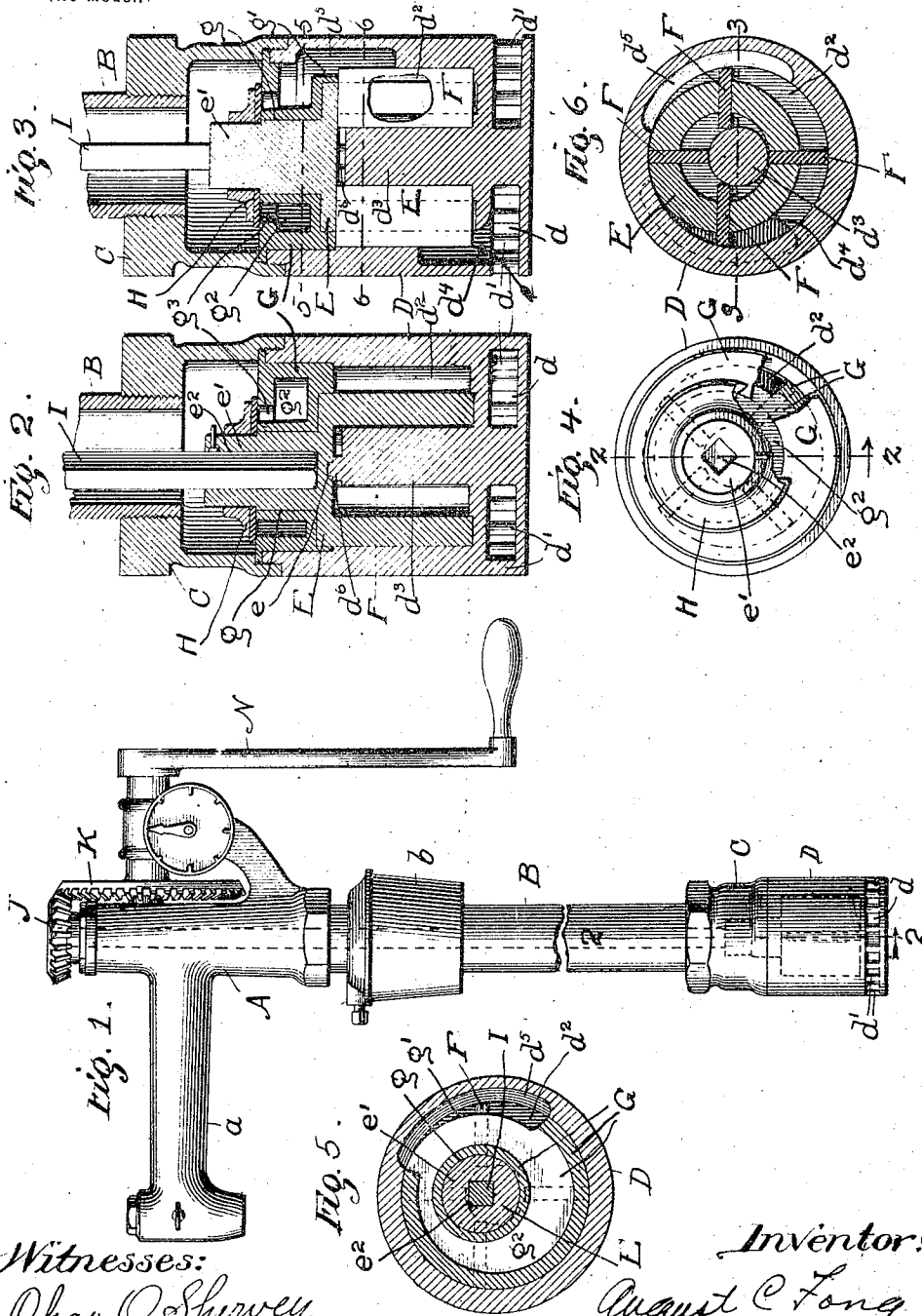
No. 664,938.

Patented Jan. 1, 1901.

A. C. FONG.
SYRUP PUMP.

Application filed June 29, 1900.

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

AUGUST C. FONG, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE PERFECTION
PUMP MANUFACTURING COMPANY, OF NORTH CHICAGO, ILLINOIS.

SYRUP-PUMP.

SPECIFICATION forming part of Letters Patent No. 664,938, dated January 1, 1901.

Application filed June 29, 1900. Serial No. 22,015. (No model.)

To all whom it may concern:

Be it known that I, AUGUST C. FONG, a citizen of the United States of America, residing at South Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Syrup-Pumps, of which the following is a specification.

My invention relates to certain improvements in syrup-pumps of the class which are intended for insertion through the top of a barrel to pump the syrup out of the same into a suitable vessel and at the same time measure the quantity discharged.

The invention consists in certain novel characteristics, which will be fully set forth and defined below.

In the drawings, Figure 1 is a side elevation of a complete pump, except that the middle portion is broken out to shorten the view. Fig. 2 is a vertical diametrical section of the bottom of the pump in line 2 2 of Fig. 1. Fig. 3 is a similar section in line 3 3 of Fig. 6. Fig. 4 is a plan of the pump and valve-casing. Fig. 5 is a horizontal section looking downward, taken in the line 5 5 of Fig. 3; and Fig. 6 is a similar section in line 6 6 of Fig. 3.

Referring to the drawings, A is a suitable pump-head provided with a discharge-spout *a*. A suitable pipe B is secured in the head, provided with a sliding collar *b*, tapered to wedge into an opening in the top of the barrel sufficient to admit the pump-casing. To the lower end of this pipe is threaded a valve-casing C, and to the lower end of the valve-casing is threaded a pump-casing D. In the bottom of the pump-casing is an inlet-chamber *d*, separated from the outside by means of a series of struts *d'*, permitting a free passage of molasses between them. Above this chamber *d* is the pump-chamber *d''*, formed by making an annular bore into the top of the pump-casing and providing a cylindrical stem *d''*, concentric with the walls of the valve-casing. A lateral recess *d'* connects the annular pump-chamber with the inlet-chamber *d* at one side of the casing, and a similar recess *d''* extends upward from the side of the pump-chamber opposite to the recess *d'*. Upon the top of the stem *d''* is an eccentric bearing *d'''*, upon which is set a circular pump-hub E, provided with a round socket *e* to receive the

bearing. The lower end of the hub is bored upwardly to clear the stem *d''* and is slotted radially to guide a series of sliding blades or paddles F, which are also guided between the stem and the outer walls of the pump-chamber. The hub is so proportioned as to reach these walls at one side and at a point located between the recesses *d'* *d''*, so that the rotation of the hub will draw in molasses through the inlet-opening *d'* and crowd it out through the outlet-opening or recess *d''*. A hollow cap G is preferably threaded to the interior of the valve-casing C, between said valve-casing and the pump-casing, and is bored eccentrically at *g* to receive and furnish a bearing for the upper end *e'* of the hub, which is reduced in diameter for this purpose. This cap has an opening *g'* at one side to register with the recess *d''*, an annular chamber *g''* connecting the said opening and an annular opening *g'''*, preferably arranged concentrically about the hub, above which a valve H is guided upon said hub to close said opening. This valve slides up upon the hub to allow the molasses to rise into the pump, but closes by gravity to prevent the return of the same.

The top of the hub contains a square socket *e''* to receive a square shaft I, extending to the top of the pump and secured against rotation in a bevel-pinion J in mesh with a bevel-gear K, rotated by a handle N. The rotation of the handle turns the pump-hub and forces the molasses upward.

In a device of the class described the above construction has great advantages because of the ease with which it is assembled in manufacture and taken apart and put together for repairs. The pump-casing and the operating parts of the pump are easily reached by unscrewing the pump-casing from the valve-casing. The unscrewing of the cap will then enable the valve and the pump-hub to be removed, and the parts can all be reached with the least labor possible.

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

1. In a device of the class described, the combination with a suitable pipe, of a valve-casing secured to the bottom thereof, a pump-casing secured to the bottom of the valve-casing, a removable partition between the two

provided with suitable passages connecting the interiors of the two casings, a rotary pump-hub having a bearing in the partition, a valve guided upon said hub to close the opening through the same and means for rotating said hub; substantially as described.

2. In a device of the class described, the combination of a pump-casing having an inlet-chamber at the bottom thereof, open laterally to the outside, an annular pump-chamber above said inlet-chamber and connected therewith at one side, a cap upon said pump-casing having an opening connected with said pump-chamber at the other side, a valve closing toward said pump-chamber adapted to

shut said opening, an eccentric hub having a bearing in said cap and extending through the same, said hub extending into the annular pump-chamber and having guided blades therein, and a valve-casing secured to the top of said pump-casing and inclosing said valve; substantially as described.

In witness whereof I have hereunto set my hand at Chicago, in the county of Cook and State of Illinois, this 18th day of June, A. D. 1900.

AUGUST C. FONG.

Witnesses:

CHAS. O. SHERVEY,
S. BLISS.