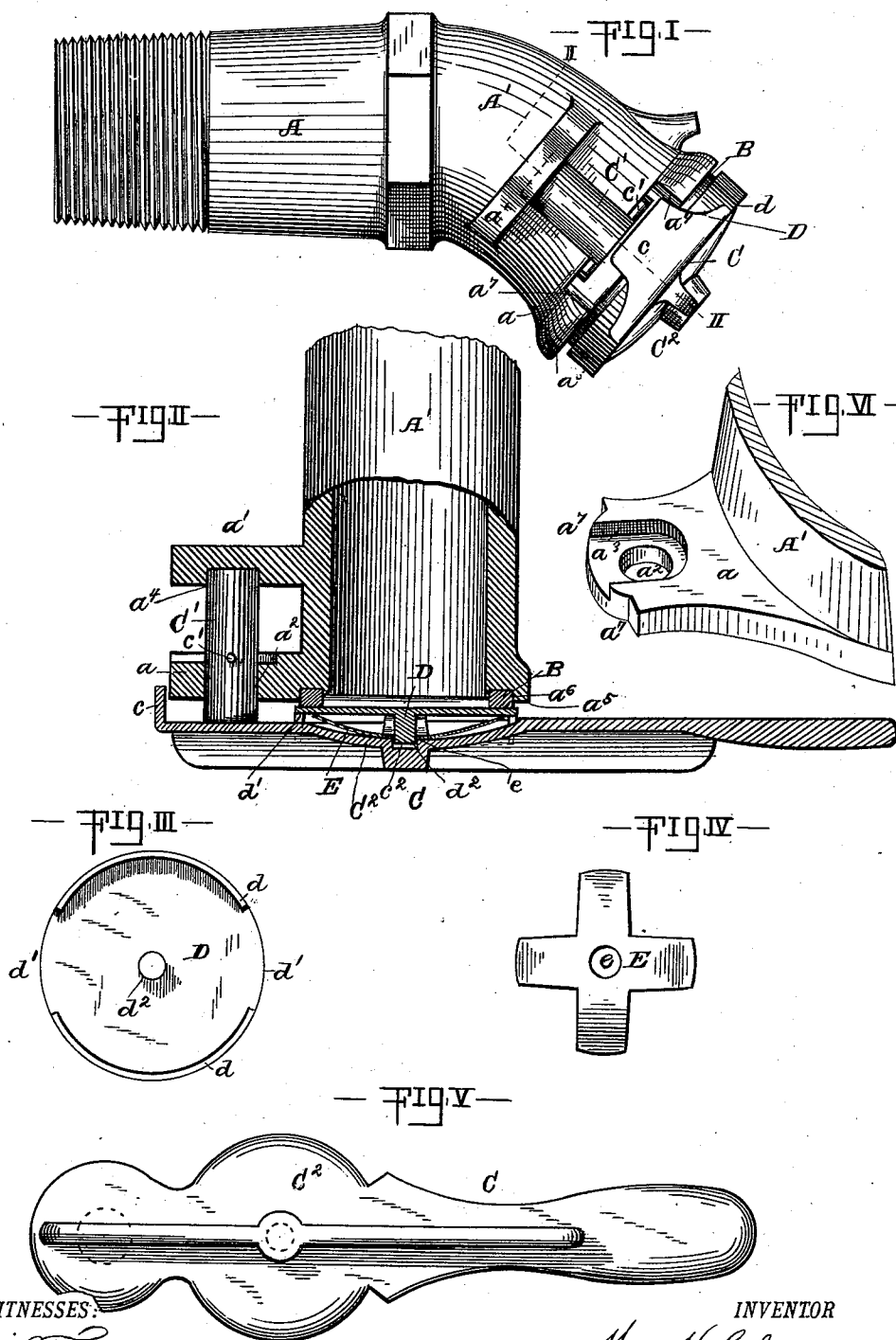


(No Model.)

W. H. CLEMES.
MOLASSES GATE.

No. 507,527.

Patented Oct. 31, 1893.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM H. CLEMES, OF CLEVELAND, OHIO, ASSIGNOR TO THE TAYLOR & BOGGIS FOUNDRY COMPANY, OF SAME PLACE.

MOLASSES-GATE.

SPECIFICATION forming part of Letters Patent No. 507,527, dated October 31, 1893.

Application filed March 24, 1891. Serial No. 386,245. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. CLEMES, a citizen of the United States, residing at Cleveland, county of Cuyahoga, and State of Ohio, have invented certain new and useful Improvements in Molasses-Gates, of which the following is a specification, the principle of the invention being herein explained and the best mode in which I have contemplated applying that principle, so as to distinguish it from other inventions.

The objects of my invention are: to provide improved means for pivoting a molasses gate or similar fluid cut-off, and to provide an improved spring for holding the gate-plate against the mouth or opening of the nozzle.

The annexed drawings and the following description set forth in detail one mechanical form embodying the invention; such detail construction being but one of various mechanical forms in which the principle of the invention may be used.

In such annexed drawings:—Figure I represents a side view of my improved molasses gate; Fig. II, a section on the line II—II, Fig. I; Figs. III, IV and V, respectively, a view of the gate-plate, of the spring, and of the handle, and Fig. VI, a perspective detail-view of the outer ear.

In the drawings the letter A indicates the tube or barrel of the molasses gate. Said tube is of the form usually employed in similar devices, having its inner, straight portion adapted to be fitted into the tap-hole of a cask and having its outer portion or head, A', curved or dropped to admit of free, downward delivery of the molasses or similar substance to be tapped. Two ears, *a* and *a'*, project from the sides of the tube and are preferably cast integral with the same. The outer ear *a* has a perforation, *a*², and a recess, *a*³, in its inner face. Said recess is semi-circular and concentric with the perforation at its inner portion, and the outer portion is of the same width as the diameter of the semi-circular portion, has parallel sides and extends to the outer edge of the ear. The inner ear *a'* has a circular recess, *a*⁴, in its outer face, corresponding to the perforation *a*² in the outer ear. The outer, flat face, *a*⁵, of the tube has an annular recess, *a*⁶, in which a gasket, B, of

leather or similar, yielding material is fitted and secured.

A lever or handle, C, is formed with an inwardly-bent lip, *c*, at its inner end, which lip may play between two shoulders or stops, *a*⁷, upon the edge of the outer ear upon the tube, and said handle has a pivot-bolt, C', projecting from its inner end, which bolt fits and turns in the perforation *a*² in the outer ear and has its inner end fitting and turning in the recess in the inner ear. A pin, *c'*, is inserted through the pivot-bolt and turns in the recess *a*³ in the inner face of the outer ear, preventing the pivot-bolt from slipping out of its bearings. The handle is furthermore formed with a circular disk, C², which registers with and about corresponds to the mouth of the tube. The inner face of this disk C² is slightly concave and has a recess, *c*², in its center.

The circular gate D is formed with an outwardly-projecting flange, *d*, at its edge, and may fit around the circular disk C² with said flange, having diametrically-opposite, cut-out portions or notches, *d'*, in the flange for the portions of the handle at opposite sides of the disk. The inner face or the face of the gate opposite the disk is formed with a central stud or projection, *d*², which fits and may slide in the central recess, *c*², in the disk of the handle.

A cross-shaped, centrally-bulging spring-plate, E, having a central opening, *e*, fits with said opening upon the central stud of the gate and bears with its bulging center against the disk of the lever and with the ends of its radiating arms against the gate.

The gate may be swung by the lever or handle to either cover and close the mouth of the tube or barrel or open the same for the discharge of the fluid contained in the cask or other vessel in which the tube is secured, and the swing of the lever is limited at both of its extremities (the open and the closed), by the inwardly-bent lip upon the inner end of the lever and the stops upon the outer lip of the tube. The radiating spring-arms will bear against the gate at four points, near its periphery, at right angles to each other, and will, consequently, cause the gate to bear equally close at all points of its periphery

against the gasket in the face of the tube. In a large gate it may be desirable to have a greater number of radiating spring-arms so as to obtain a more complete bearing.

5 The tube or barrel is cast, and the recess in the inner face of the outer ear is formed in the casting, the parallel sides of its open portion permitting the ear being withdrawn from the sand without obstruction. The opening
10 in the outer ear and the registering recess in the inner ear are subsequently formed by drilling. Besides the advantage obtained in the process of casting by forming the outer side of the recess in the ear open, another ad-
15 vantage is gained thereby in the ease where-with the lock-pin *c'* may be inserted through the pivot-bolt from the open side of the recess.

20 Other modes of applying the principle of my invention may be employed for the mode herein explained. Change may therefore be made as regards the mechanism herein in-

volved providing the principles of construction respectively recited in the following claim are employed.

I therefore particularly point out and distinctly claim as my invention—

In a molasses-gate, a tube or barrel provided with a laterally-projecting, outer ear formed with a perforation and with a recess
30 in its inner face having a semi-circular inner side and an open, outer portion having parallel sides, and provided with a laterally-projecting, inner ear formed with a circular re-
35 cess in its outer face registering with the perforation in the outer ear, substantially as set forth.

In testimony that I claim the foregoing to be my invention I have hereunto set my hand this 20th day of March, A. D. 1891.

W. H. CLEMES.

Witnesses:

J. B. FAY,

HORACE F. PARKS.