

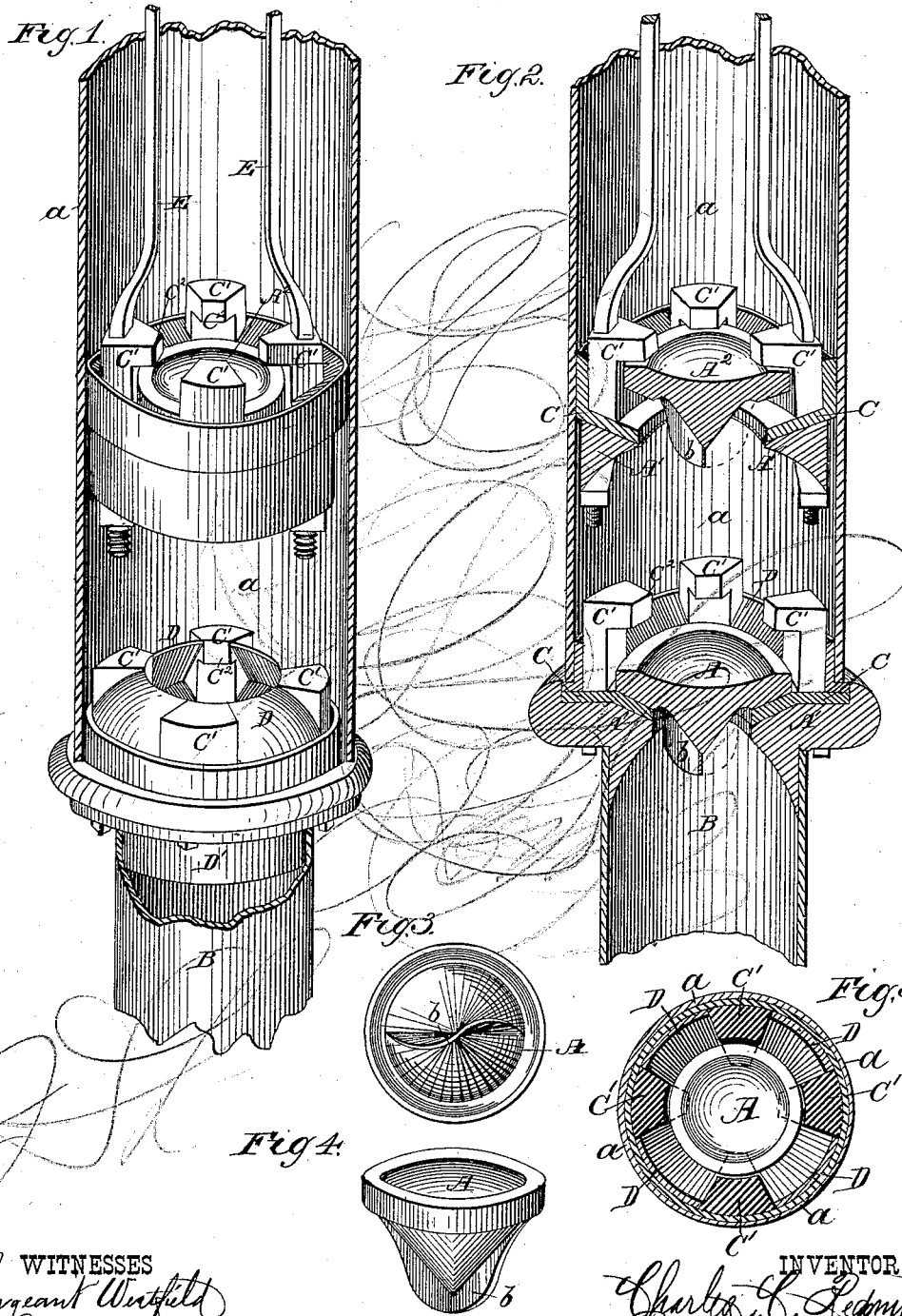
(No Model.)

C. C. REDMOND.

PUMP VALVE.

No. 264,338.

Patented Sept. 12, 1882.



WITNESSES  
Sergeant Westfield  
Jas. A. Baxter

INVENTOR  
Charles C. Redmond  
By Myra & Co.  
ATTORNEY

# UNITED STATES PATENT OFFICE.

CHARLES C. REDMOND, OF SAN JOSÉ, CALIFORNIA, ASSIGNOR TO MILTON CAMPBELL, OF SAME PLACE.

## PUMP-VALVE.

SPECIFICATION forming part of Letters Patent No. 264,338, dated September 12, 1882.

Application filed May 8, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES C. REDMOND, a citizen of the United States, residing at San José, in the county of Santa Clara and State of California, have invented certain new and useful Improvements in Pump-Valves; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification, and in which—

Figure 1 is a sectional view of a pump well-pipe, showing in perspective my valves applied thereto. Fig. 2 is a sectional view of pipes and valves of the same. Fig. 3 is an inverted view of the valve proper. Fig. 4 is a detailed perspective view of the valve proper. Fig. 5 of the drawings is a cross-section taken at line *x x*, showing the position of the dome-shaped apertured guard D and the overhanging short studs or posts with the valve A in place.

This invention has relation to an improvement in pump-valves, having for its object, among other things, to prevent the accumulation or lodgment of gravel upon the valve-seat and to distribute wear upon the valve-seat and valve; and it consists of the construction, combination, and arrangement of parts substantially as hereinafter more fully set forth and claimed.

In carrying out my invention I affix to the well pipe or cylinder *a*, at its lower end, the check-valve A. Below this valve is arranged the suction tube or pipe B. The seat A' of the valve has an inclined surface or face faced with leather C, upon which the valve A rests, and which forms a water-tight joint between the seat and cylinder, it being sandwiched between them or flanges thereof. Cast with the lower end of the cylinder, or secured by a ring thereto, are a series of short posts or studs, C', arranged circularly around said end or ring of said cylinder and having overhanging flanges

C<sup>2</sup>. These limit the upward movement of and keep the valve in its working position. A guard, D, or apertured dome, is cast upon the same ring or end of the cylinder to which the valve-seat is secured, filling up the intervals or spaces between the studs or posts C. This prevents in a great measure the entrance from the upper side of extraneous particles or material into the valve-chamber. The inclination of the valve-seat prevents the lodgment or accumulation of gravel upon it. The valve A proper is a disk having cast or formed upon its lower side a cone. Upon this cone is cast or formed a spiral flange, *b*, to enable the valve to keep shifting its position horizontally upon its seat by the action of the water thereon to permit the distribution of wear upon the seat and valve. A collar or "follower," D', is a part of the lower side of the valve-seat, and fits into the suction pipe or tube B.

A<sup>2</sup> is the suction-valve, in all respects the counterpart of the check-valve above described, and connected as shown, or otherwise, to the pump rod or plunger E.

I claim and desire to secure by Letters Patent—

1. In combination, a check-valve, A, having a cone-shaped bottom cast integral with a single spiral-shaped wing or propeller, said wing or propeller formed wider at the apex of the cone than at the base, guide-studs C', having overhanging flanges C<sup>2</sup>, and the seat A', as and for the purpose set forth.

2. In combination, a check-valve, A', formed with cone-shaped bottom, having cast thereon a single spiral-shaped wing or propeller wider at the apex of the cone than at its base, with the guide-studs C', having flanges C<sup>2</sup>, guard D, packing C, and seat A', as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

CHAS. C. REDMOND.

Witnesses:

MILTON CAMPBELL,  
H. W. WRIGHT.