

S. BRADLEY.
Pump-Valve.

No. 197,453.

Patented Nov. 27, 1877.

Fig. 1.

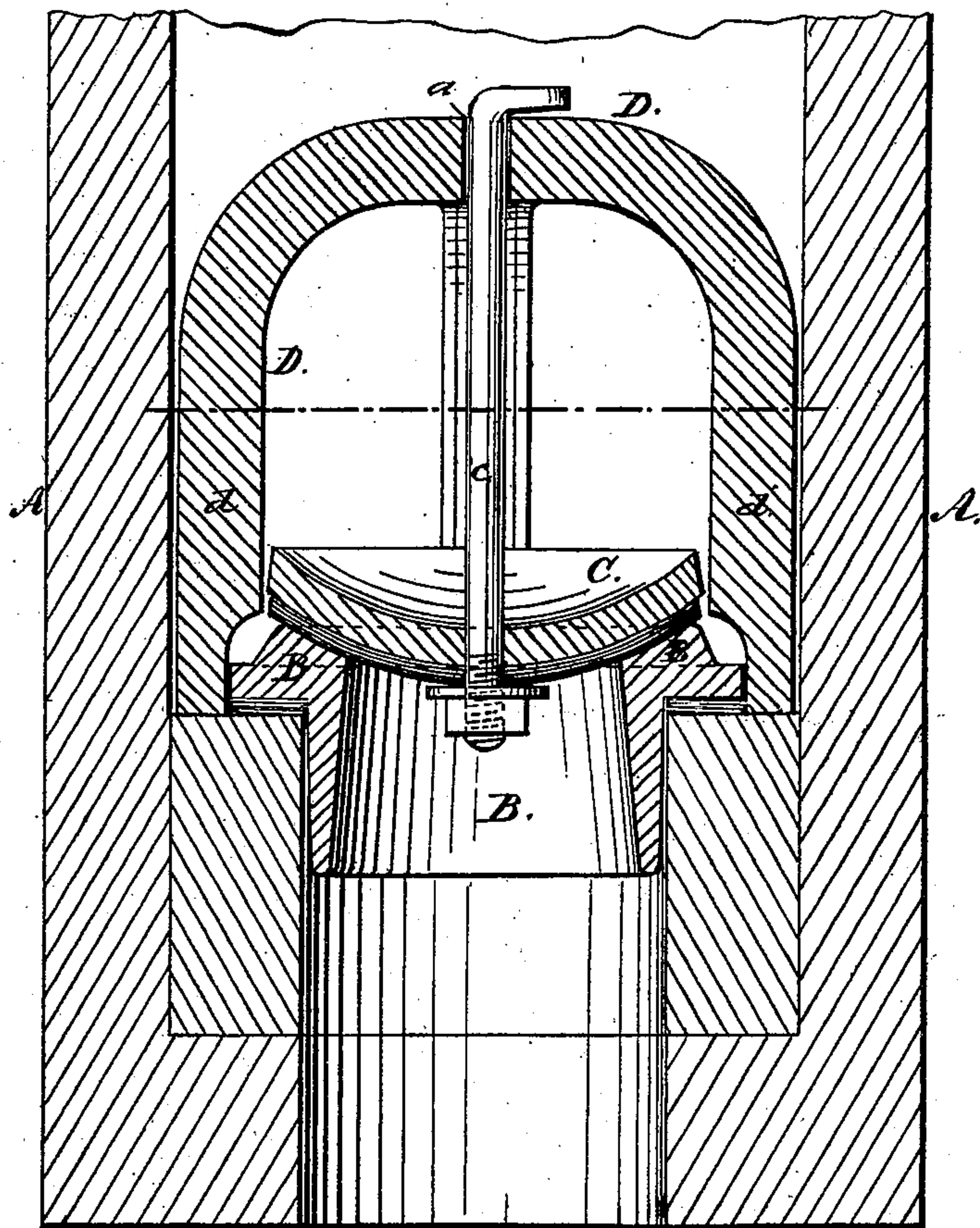
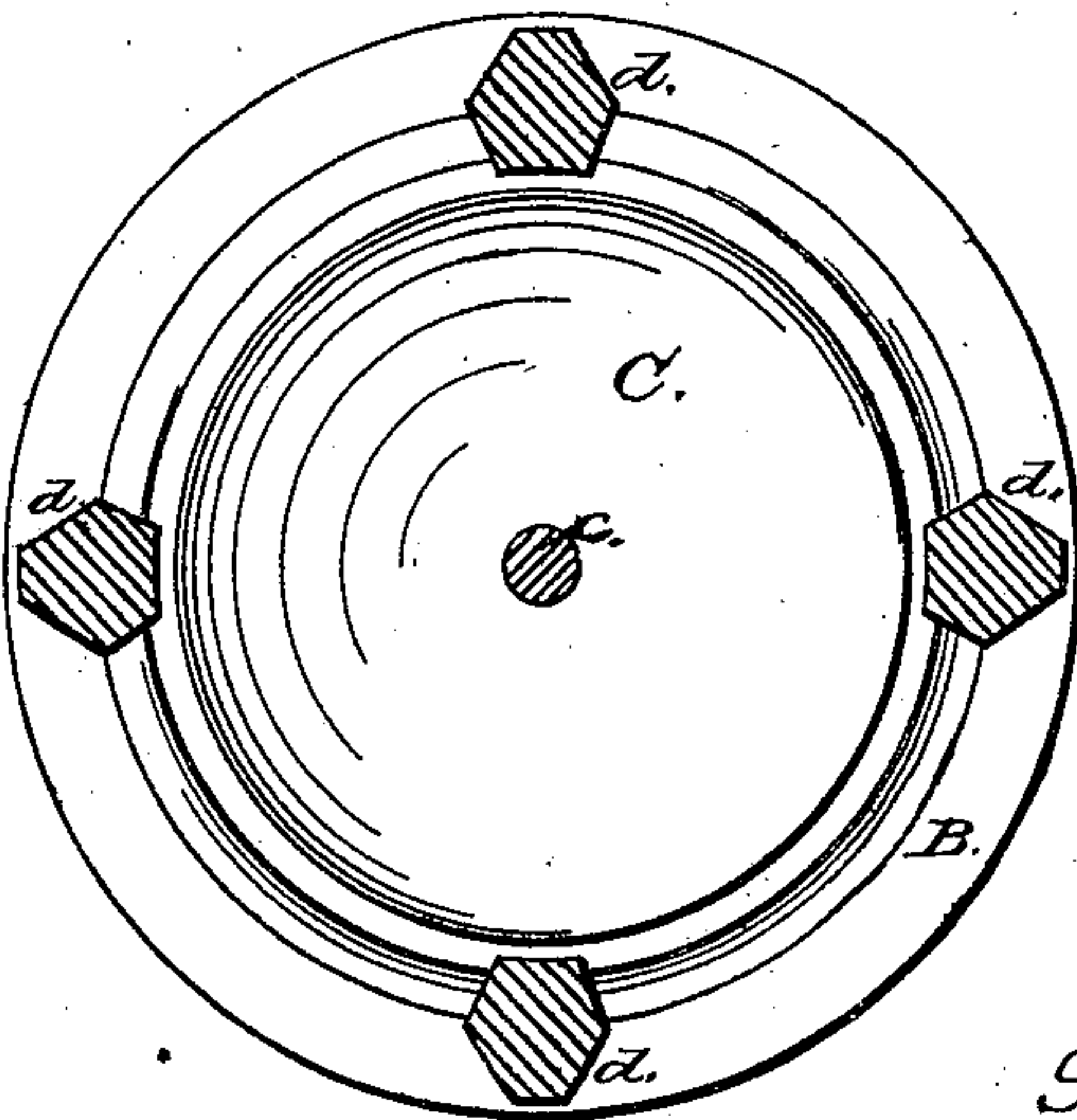


Fig. 2.



Witnesses:

J. C. Brecht,
H. J. Ingham

Inventor:

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By G. W. C. Allen,
Atty.

UNITED STATES PATENT OFFICE.

SYLVESTER BRADLEY, OF BLOOMINGTON, ILLINOIS.

IMPROVEMENT IN PUMP-VALVES.

Specification forming part of Letters Patent No. **197,453**, dated November 27, 1877; application filed May 12, 1877.

To all whom it may concern:

Be it known that I, SYLVESTER BRADLEY, of Bloomington, in the county of McLean and State of Illinois, have invented certain new and useful Improvements in Pump-Valves; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being made to the accompanying drawing, forming a part of this specification, and in which—

Figure 1 is a vertical section showing my improvements as applied to the pipe or cylinder of a pump. Fig. 2 is a top or plan view.

My invention relates to improvements in the class of pump-valves which can be removed for repairs without taking the pump down or to pieces; and the invention consists in the combination of the valve and a frame, to which the valve is secured, so as to have free vertical play therein, and a valve-seat, all as hereinafter fully described.

A in the drawings represents the section of a pipe or cylinder of a pump, and B represents the valve-seat of the lower valve, which is constructed and secured in the pipe or cylinder in the usual manner. C represents a stem or puppet valve, and *c* the stem thereof, which passes up through a central hole, *a*, in the metal frame D, and which is secured thereto, so as to have a free vertical play through said hole by bending the stem, as shown in Fig. 1, or by a nut and washer, or any other equivalent device.

The frame D is composed of two or more

downwardly-projecting arms, *d*, which rest on the outer part of the valve-seat when placed in position within the pipe or cylinder of the pump. The valve has the requisite vertical play desired inside of the arms which inclose and guide the valve. Said frame D is designed to be fitted loosely enough within the pipe or cylinder of the pump as to be readily withdrawn therefrom without taking the pump down or to pieces, and also of sufficient weight to hold the valve down in its proper place.

Said frame, with the valve, can be easily and readily removed from the pump for repairs by means of a hooked rod or wire, or any other equivalent device.

I am aware that a compound valve, in connection with a removable guide for ships' pumps, is old, and such I do not claim as my invention; but

I claim as my invention—

The combination, in a pump, of the valve-seat B, removable downwardly-projecting armed frame D, and the puppet-valve C, the several parts constructed and arranged as herein shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 5th day of May, 1877.

SYLVESTER BRADLEY.

Witnesses:

THOS. SLADE,
CHARLIE C. CARY.