

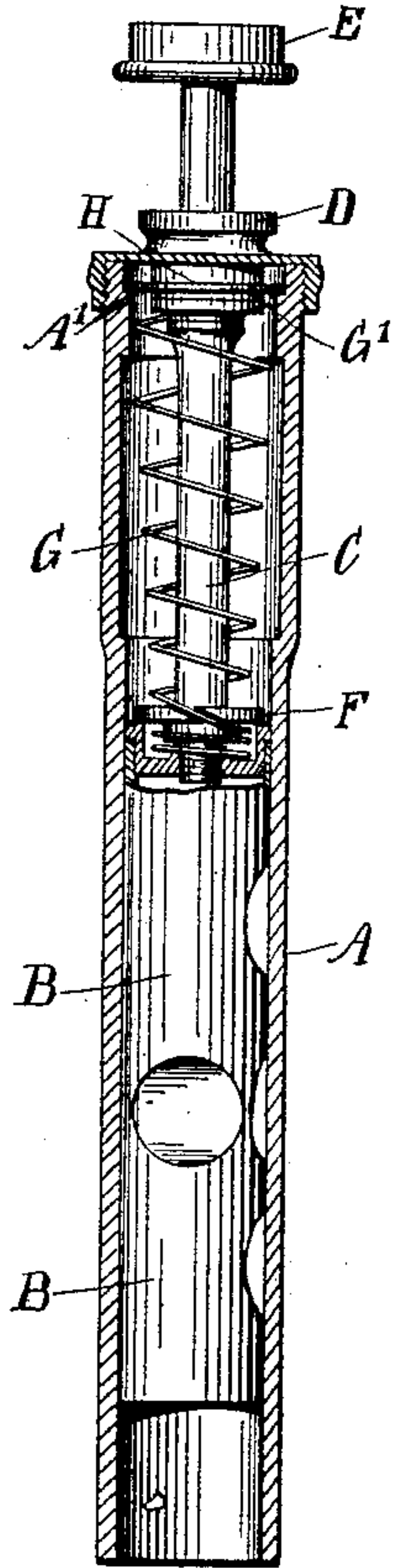
(No Model.)

H. F. HENRY.  
DISTENTION VALVE FOR MUSICAL INSTRUMENTS.

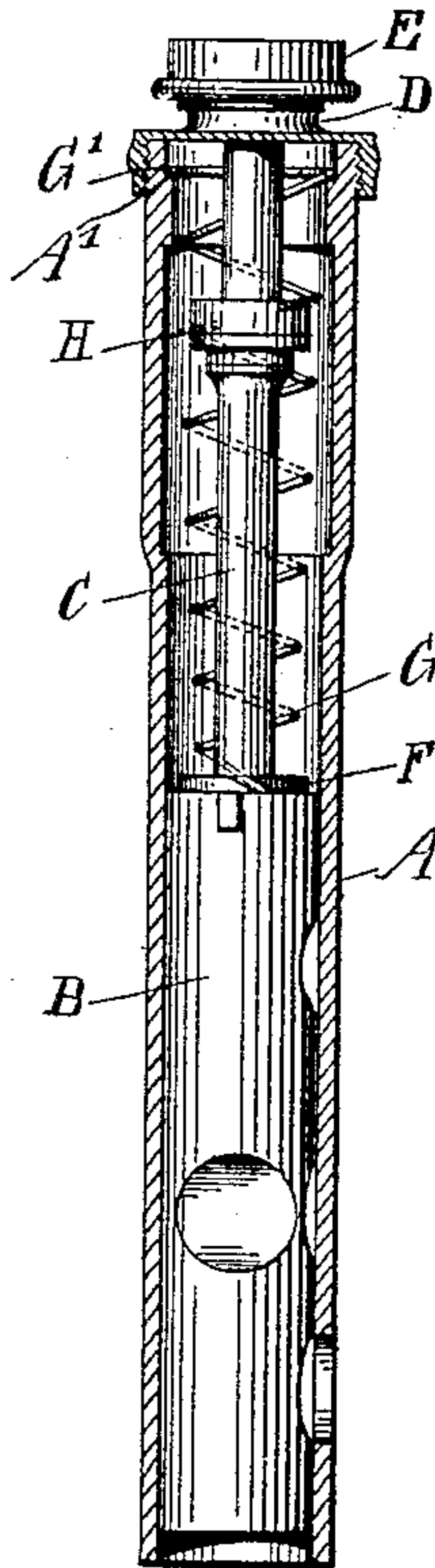
No. 572,799.

Patented Dec. 8, 1896.

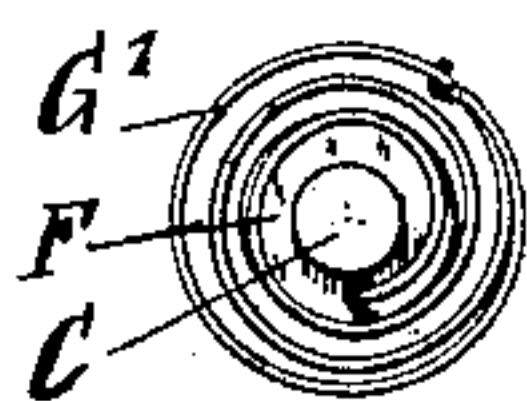
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



WITNESSES:

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# UNITED STATES PATENT OFFICE.

HIRAM FLINT HENRY, OF CLEVELAND, OHIO.

## DISTENTION-VALVE FOR MUSICAL INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 572,799, dated December 8, 1896.

Application filed March 25, 1896. Serial No. 584,863. (No model.)

*To all whom it may concern:*

Be it known that I, HIRAM FLINT HENRY, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and Improved Distention-Valve for Musical Instruments, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved distention-valve for cornets and like musical instruments which is simple and durable in construction and arranged to prevent sidewise motion of the valve by the buckling of the compression-spring now used in cornets.

The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional side elevation of the improvement. Fig. 2 is a similar view of the same with the valve in an inward or pressed position, and Fig. 3 is a face view of the spring and valve.

The tubular casing A of a cornet contains the usual valve B, provided with a stem C, fitted to slide at its outer end in a cap D, secured to the outer end of the casing A. On the outer end of the stem C is secured a finger-piece E, adapted to be pressed by the player to move the valve B in the casing A and graduate the tone as desired.

On the inner end of the stem C next to the valve B is arranged a disk F, in which is secured one end of a spring G, coiled on the stem C and preferably made conical, with the outer or base end G' resting on a shoulder A', formed integral on the outer end of the casing A next to the cap D. Now it will be seen that by the arrangement described the tension of the spring G tends to hold the valve B in an outermost position, the outward movement of the valve being limited by a collar H, secured on the stem C and adapted to rest on the inner face of the cap D. When the finger-piece E is pressed inwardly to operate the valve B, then the spring G is extended, and as soon as the operator releases the pressure on the finger-piece the tension of the spring G pulls the valve B

back to its normal position. Now it will be seen that by using the spring that is extended on pressing the finger-piece E, I prevent buckling of the spring and consequent sidewise pushing of the valve B in the casing A, and in doing so the valve will always be in a central position, thereby rendering the action equal and sure and never permitting the valve to stick on one side or the other of the casing, as is so frequently the case in valves for cornets as ordinarily constructed. It will further be seen that as the valve B always moves centrally in the casing the wear on the casing and valve surfaces is reduced to a minimum.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A valve for musical instruments, comprising a casing, a valve fitted to slide therein and provided with a valve-stem, and a spring having its lower end connected with the valve and resting with its other end on an outwardly-facing shoulder or bearing on the casing, substantially as shown and described.

2. A valve for musical instruments, comprising a casing provided at its outer end with an enlarged bore forming an upwardly-facing shoulder, a valve fitted to slide in said casing and provided with a stem extending to the outside thereof, a coiled spring tapering toward one end and having its larger end in engagement with said shoulder while the inner end of the spring is secured to the valve, substantially as described.

3. In a musical instrument, substantially as described, the combination of the barrel or valve-casing, the valve fitted therein and having the stem, and the coil-spring encircling the valve-stem, said spring being connected at its lower end with the valve and having at its upper end an approximately-circular bearing concentric with the valve whereby as the valve is depressed the spring will be distended and the spring being arranged concentric with the valve whereby to overcome the crowding over of the valve against one side of the casing, substantially as shown and described.

HIRAM FLINT HENRY.

Witnesses:

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