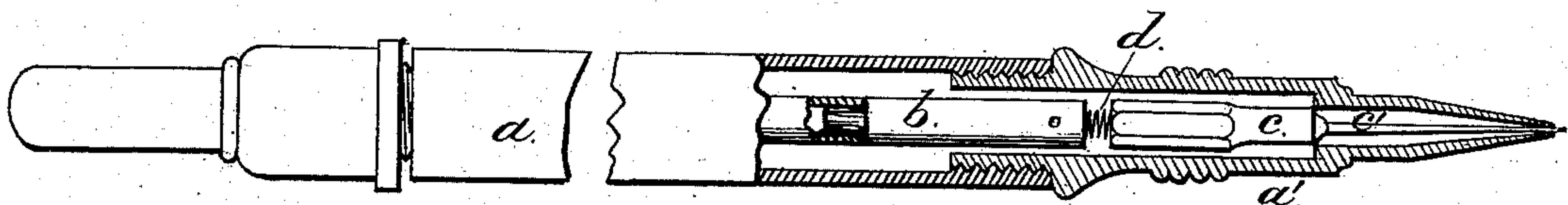


F. C. BROWN & A. M. SUTHERLAND.  
Stylographic Fountain Pen.

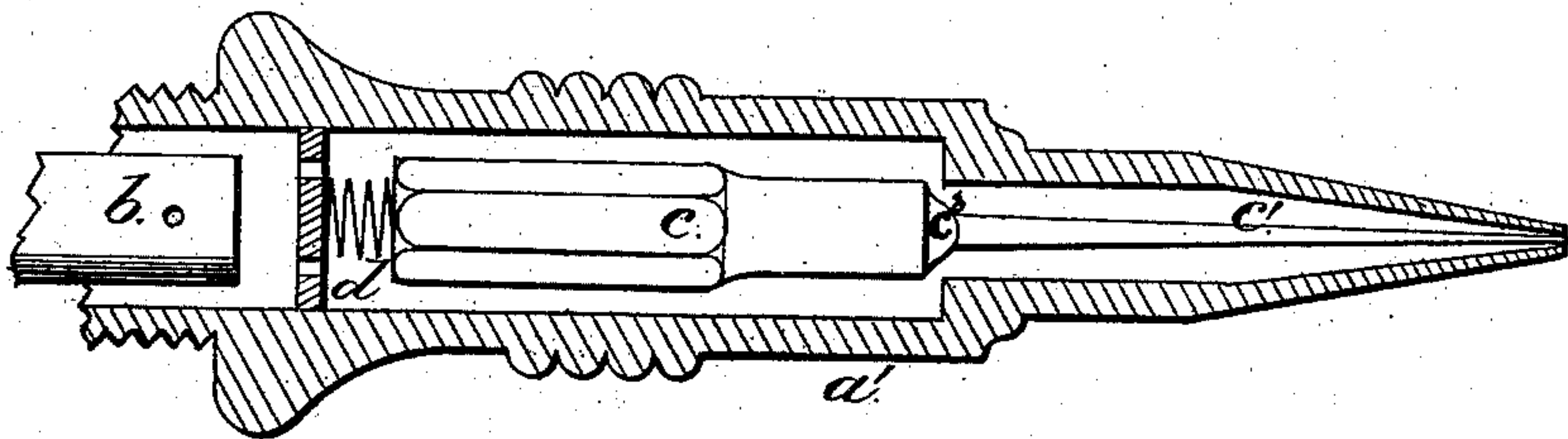
No. 238,024.

Patented Feb. 22, 1881.

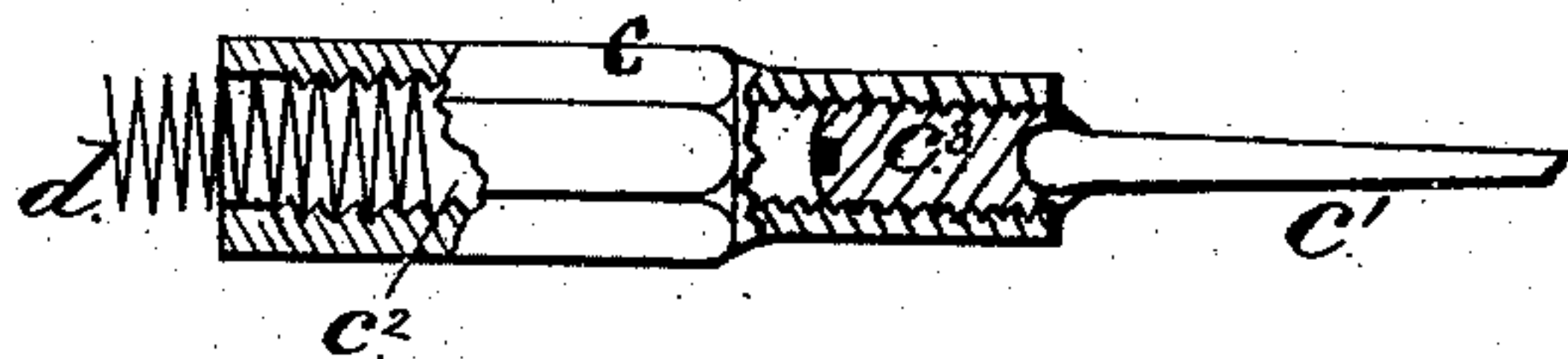
*Fig. 1.*



*Fig. 3.*



*Fig. 2.*



*Attest:*

*H. H. Schott.*  
*Floyd Norris.*

*Inventors:*

*Francis C. Brown.*

*Alexander M. Sutherland.*

*Per Wm. F. Brereton atty.*

# UNITED STATES PATENT OFFICE.

FRANCIS C. BROWN AND ALEXANDER M. SUTHERLAND, OF NEW YORK, N. Y.

## STYLOGRAPHIC FOUNTAIN-PEN.

SPECIFICATION forming part of Letters Patent No. 238,024, dated February 22, 1881.

Application filed October 10, 1879.

*To all whom it may concern:*

Be it known that we, FRANCIS C. BROWN and ALEXANDER M. SUTHERLAND, both citizens of Canada, now residing in the city and county of New York, and State of New York, have invented certain new and useful Improvements in Fountain-Pens; and we 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 of reference marked thereon, which form a part of this specification.

This invention relates to certain improvements in stylographic fountain-pens; and the said invention consists in constructing or providing a spring between the end of the air-tube and top of the valve, said spring being secured in a cavity formed in the top portion of the valve-block, whereby an elastic positive action is at all times given to the valve, substantially as and for the purposes hereinafter more fully set forth and claimed.

In the drawings, Figure 1 is a central longitudinal sectional view of a pen provided with a valve constructed with spring in its top; Fig. 2, an enlarged view of the valve; Fig. 3, a modification.

*a a'* is the pen case or barrel, and *b* the air-tube, of the usual or any appropriate construction.

*c* is the valve block or carrier, with needle or spindle *c'* at its lower end. Through the center of the valve-block is drilled a hole or opening, *c<sup>2</sup>*, which receives at its lower end the spindle or needle-adjusting screw *c'*, and at the top a spiral spring, *d*, is inserted. Said spring is made of a size, in relation to the bore *c<sup>2</sup>*, that when the spring is placed in position in the valve-block the coils of the spring will fit between the threads of the screw cut on the inside of the bore *c<sup>2</sup>*, as shown. The spring is inserted in place by screwing it within the valve-block, and it is adjusted in position therein so as when the parts are in position the spring will have a positive but slight pressure upon the end of the air-tube. By this

means an elastic positive action is given to the valve, and the pen is kept closed, even should it be inverted. Thus the accidental escape of ink is at all times prevented.

Instead of having the spring impinge against the end of the air-tube, it may be made to impinge against a fixed part or stop formed in the interior of the pen-barrel, as shown in the modification. Also, the spring may be secured in position in the valve-block in any suitable or appropriate manner, no special claim being laid to this detail of construction.

The needle or spindle *c'* is, in this instance, made swivel; but it may be either swivel or rigid, as desired, no claim being made to this particular feature by us.

The air-tube is also made in two sections, united by a slip or screw joint, as shown in Fig. 1, whereby the relative distance between the valve and the air-tube may be adjusted and regulated. No claim, however, is made by us to this two-part air-tube, in itself, in this case.

Having thus described the invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a stylographic fountain-pen, the valve *c c'*, provided within its top end with spring *d*, adapted to be adjusted therein and removed therefrom, substantially as and for the purposes described.

2. The combination and arrangement, in a fountain-pen, of air-tube terminating near the valve, valve with spring, and adjustable needle, substantially as and for the purposes described.

3. The combination, in a fountain-pen, of the valve, the spring secured within the top of the valve, and adjustable needle, substantially as and for the purposes described.

In testimony that we claim the foregoing we have hereunto set our hands this 9th day of October, 1879.

F. C. BROWN.

A. M. SUTHERLAND.

Witnesses:

B. S. CLARK,

H. VAN ALLEN.