

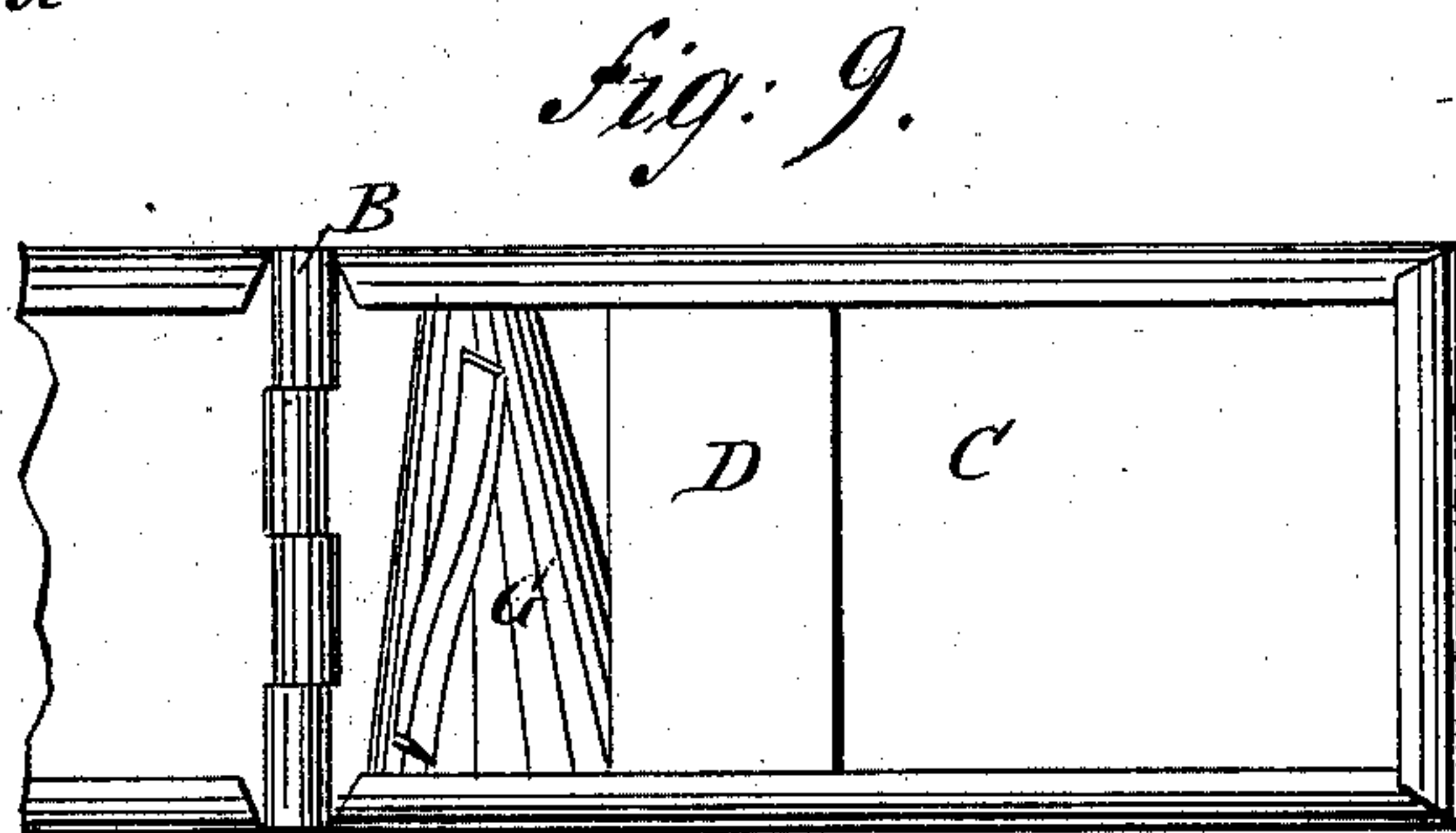
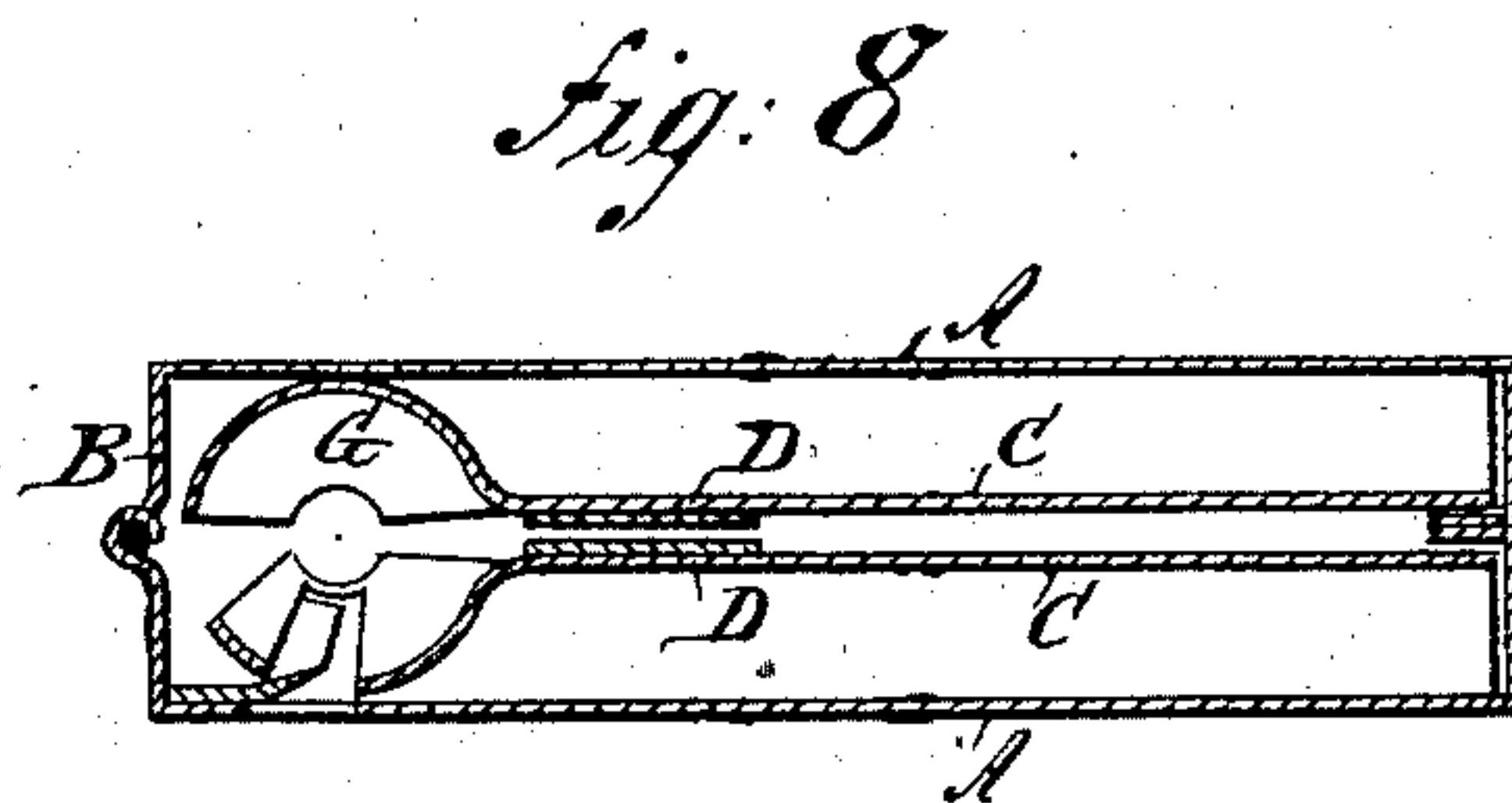
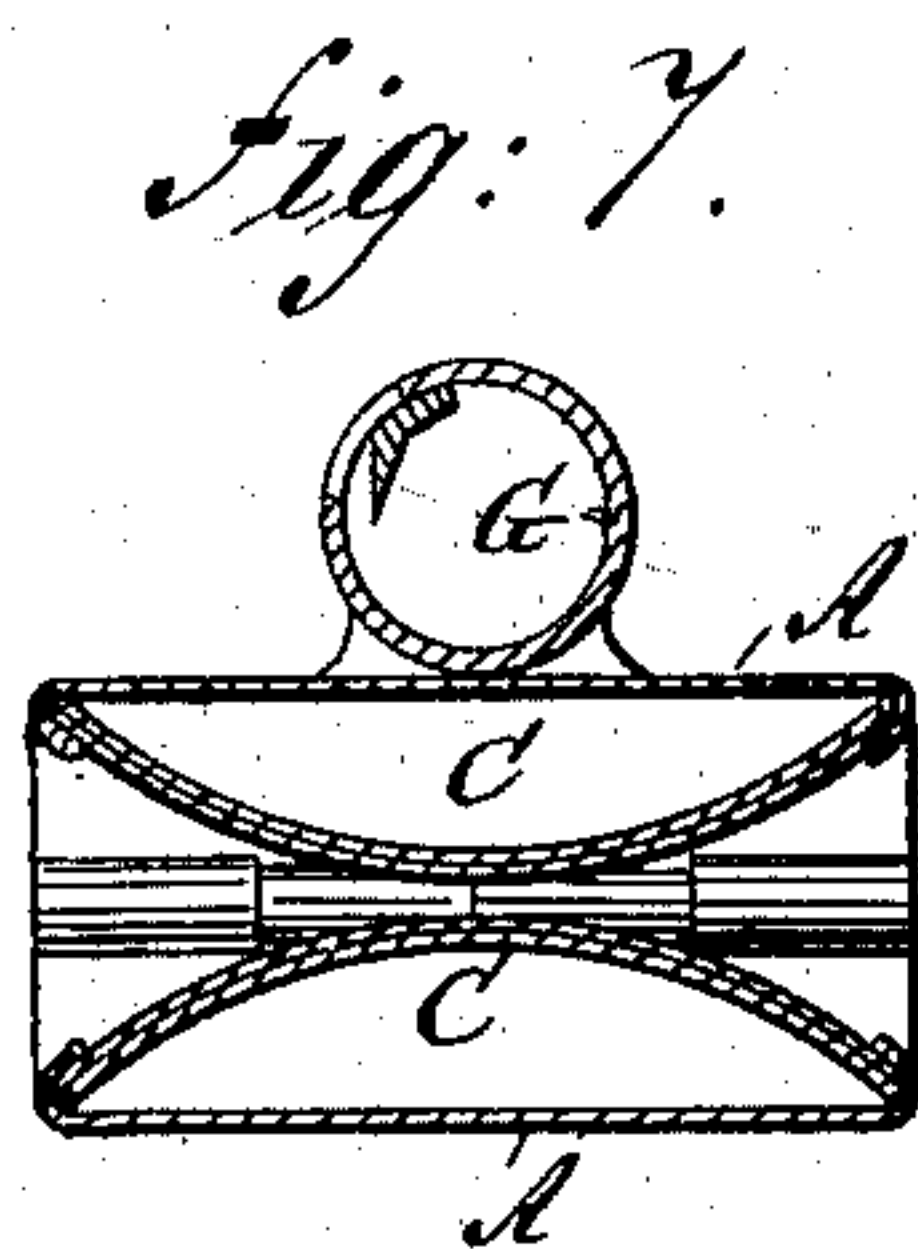
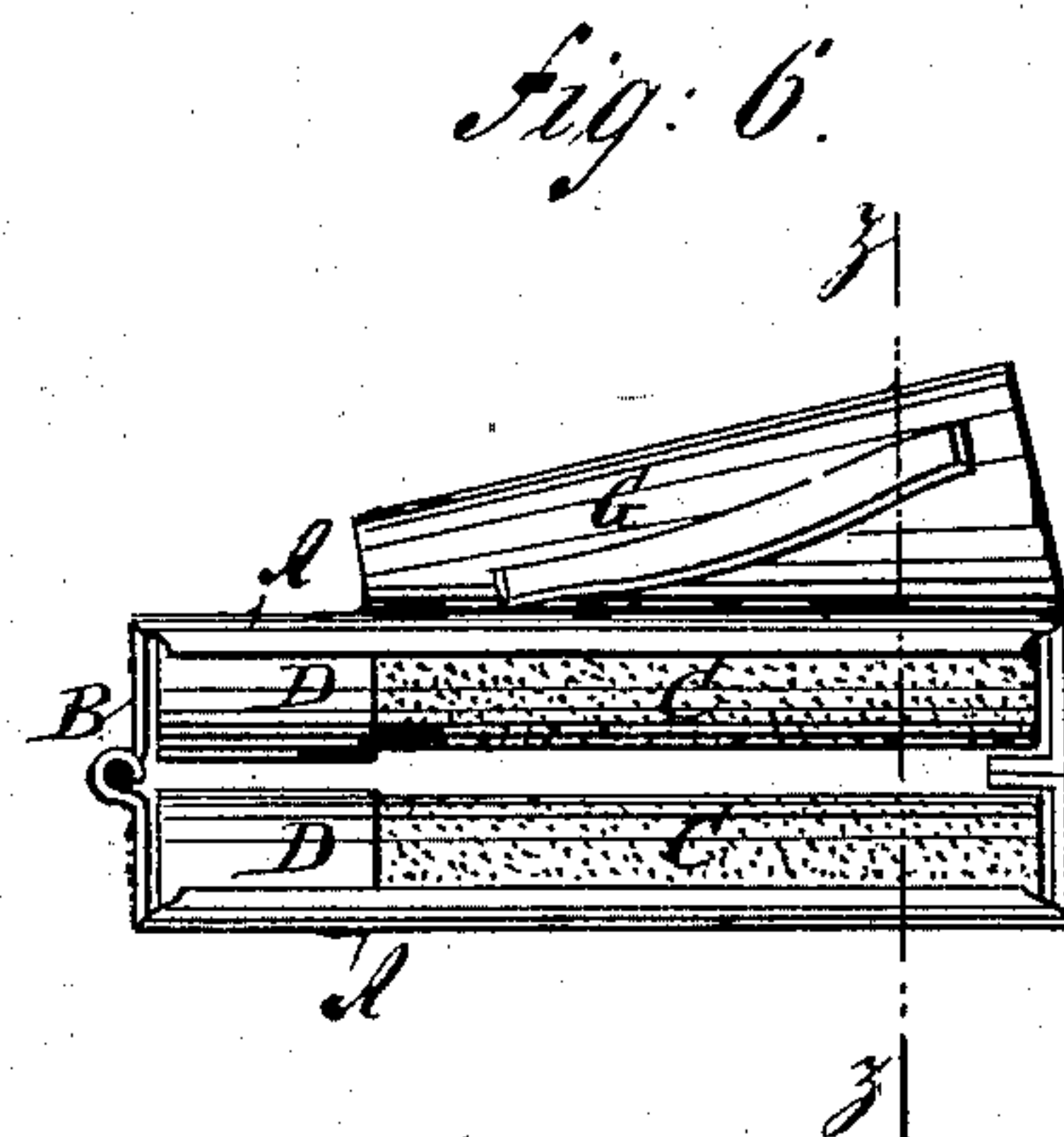
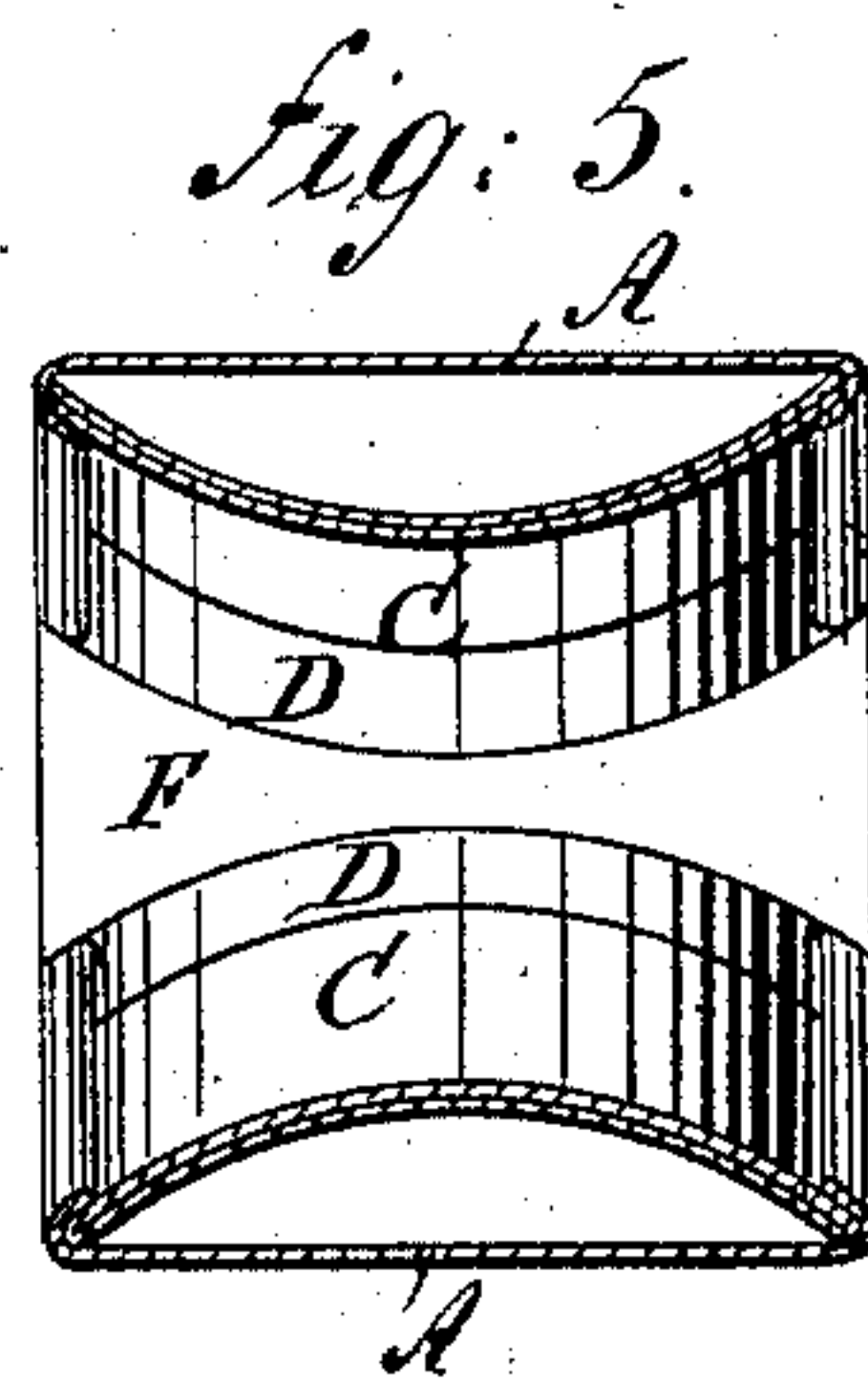
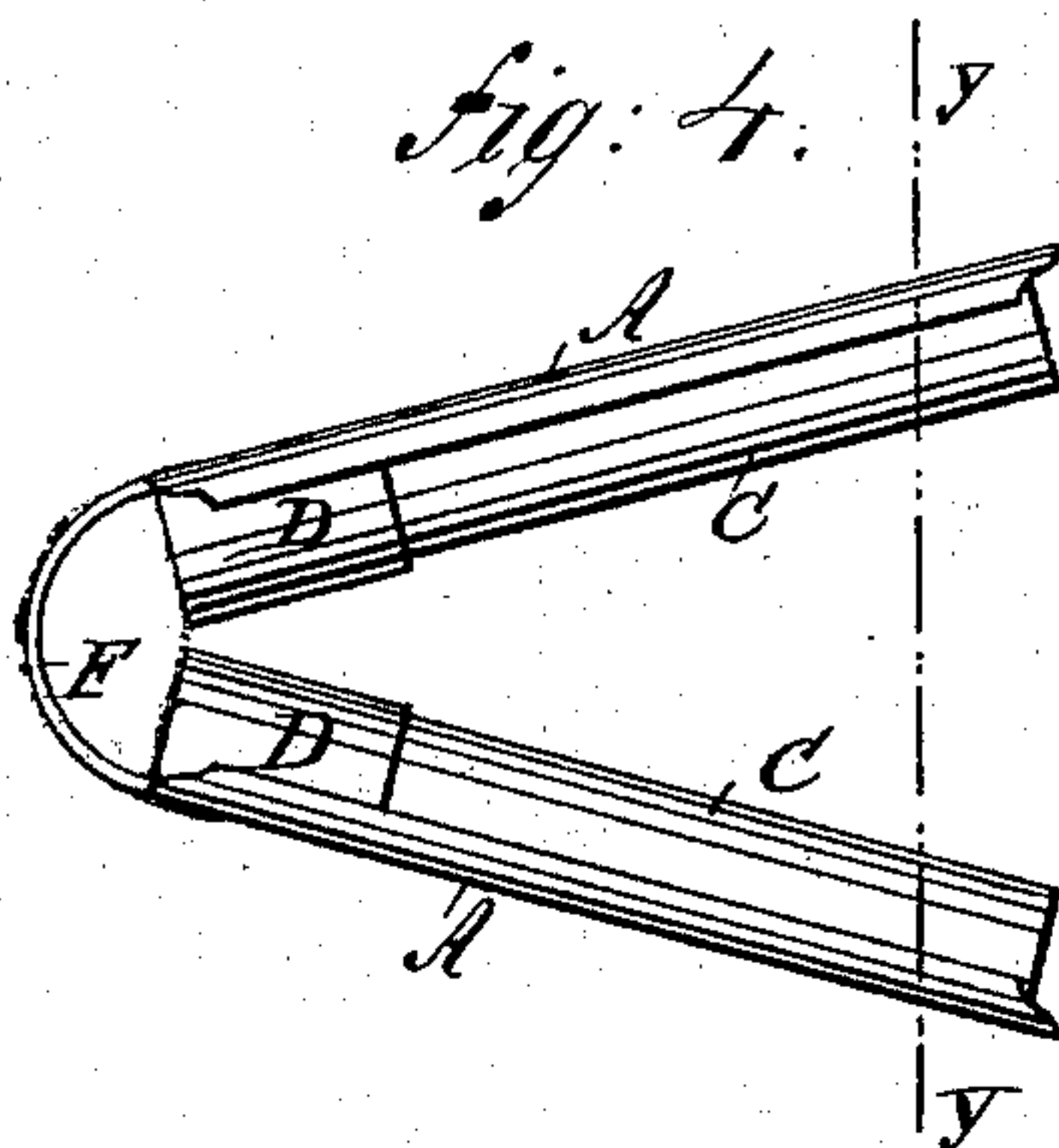
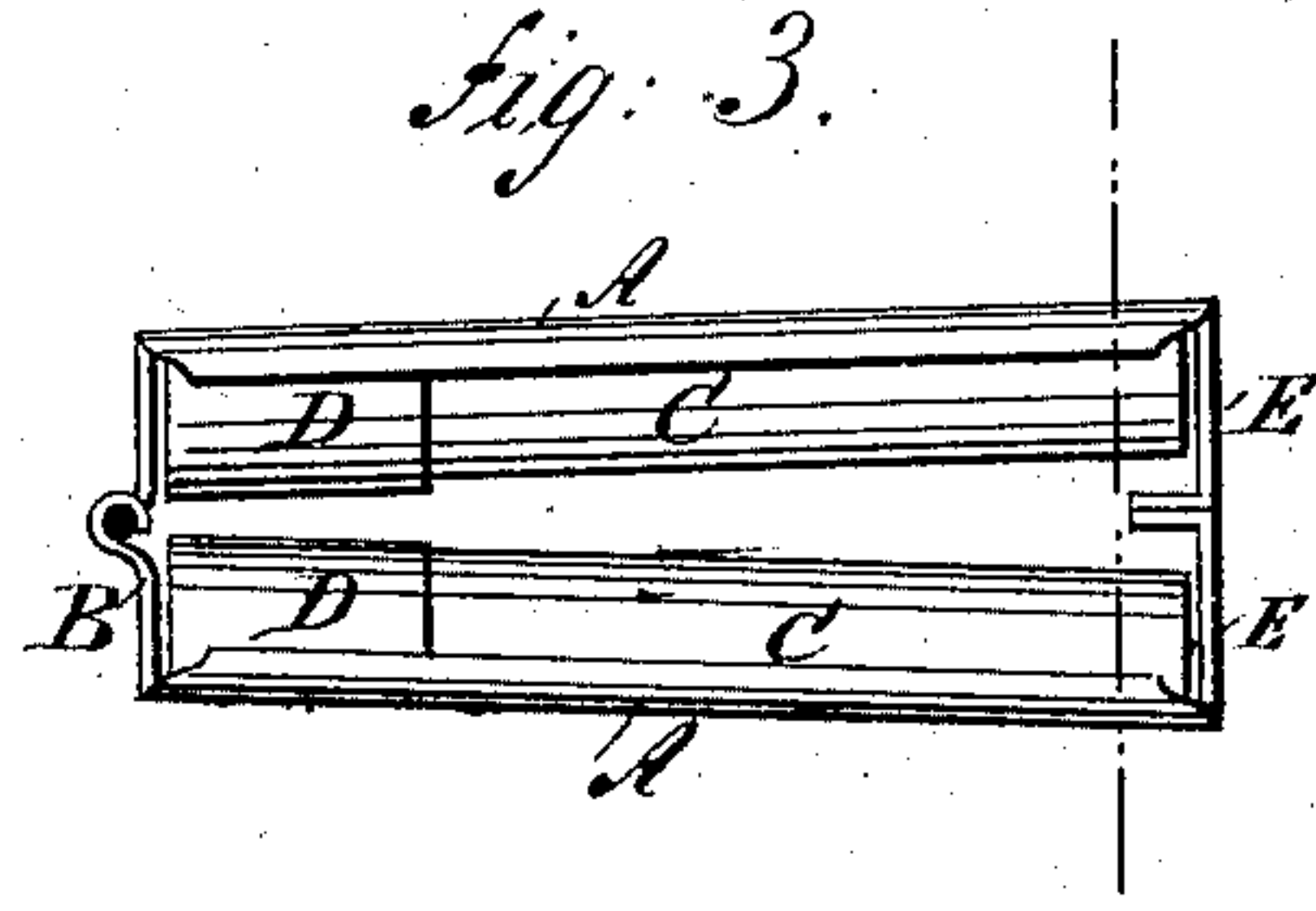
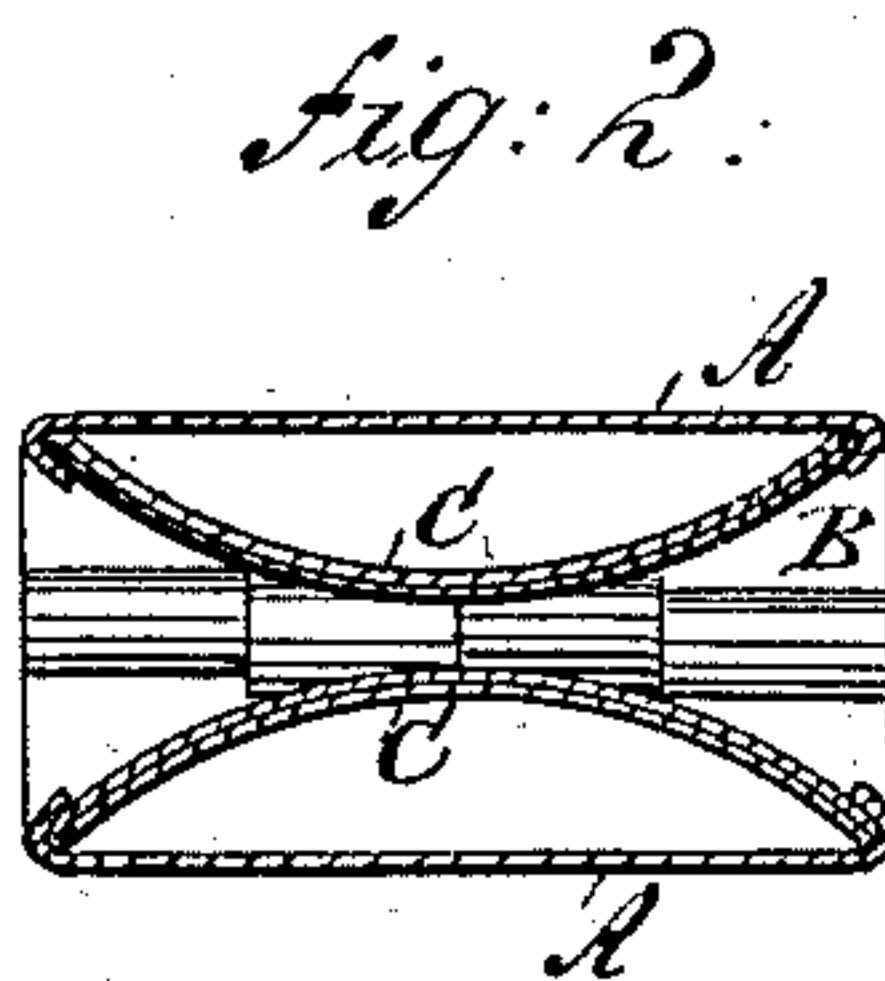
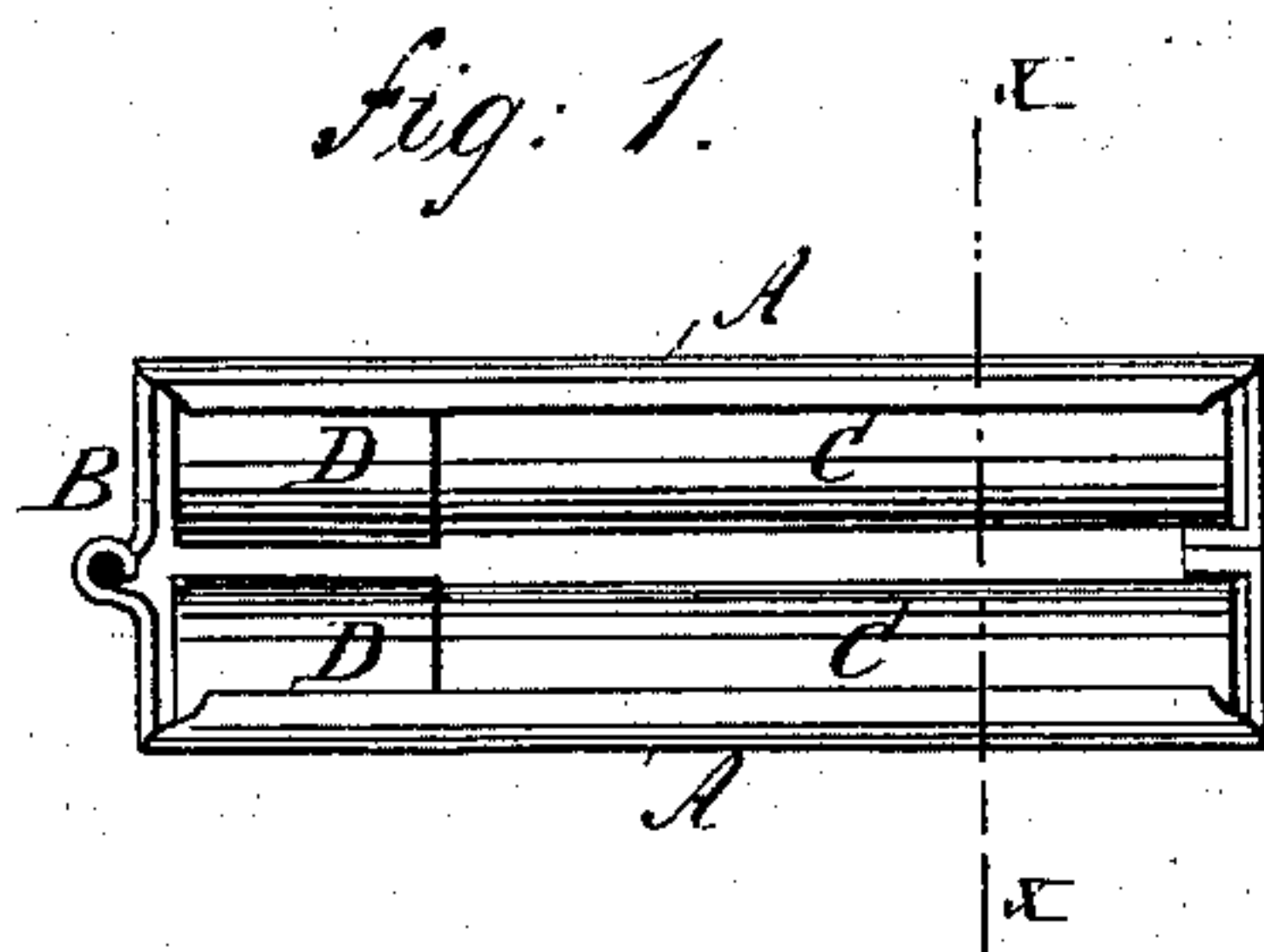
(No Model.)

F. F. KULLRICH.

PENCIL SHARPENER.

No. 254,986.

Patented Mar. 14, 1882.



WITNESSES:

A. Schehl.  
C. Sedgwick

INVENTOR:

F. F. Kullrich  
BY *Mum & Co*  
ATTORNEYS.



# UNITED STATES PATENT OFFICE.

FRANZ F. KULLRICH, OF BERLIN, GERMANY.

## PENCIL-SHARPENER.

SPECIFICATION forming part of Letters Patent No. 254,986, dated March 14, 1882.

Application filed February 25, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, FRANZ F. KULLRICH, of Berlin, Prussia, Germany, have invented a new and Improved Pencil-Sharpener, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved device of simple construction for sharpening pencils of every description.

The invention consists of two convex plates with roughened surfaces and having a strip of felt or other fibrous or hairy material attached to their inner ends, which plates are hinged to each other or connected by a spring, so that they can be separated to admit the point of the pencil, and can be pressed together, as the diameter of the pencil-point is decreased, by rotating or twirling the point between the roughened plates.

In the accompanying drawings, Figure 1 is a longitudinal elevation of my improved pencil-sharpener, showing it closed. Fig. 2 is a cross-sectional elevation of the same on the line *x x*, Fig. 1. Fig. 3 is a longitudinal elevation of a modification in which the distance between the convex surfaces increases toward the outer ends. Fig. 4 is a side elevation of a modification, showing the roughened convex plates united by a band-spring. Fig. 5 is a cross-sectional elevation of the same on the line *y y*, Fig. 4. Fig. 6 is a longitudinal elevation of my improved device with a conical knife for cutting the wood of the pencils. Fig. 7 is a cross-sectional elevation of the same on the line *z z*, Fig. 6. Fig. 8 is a longitudinal elevation of my improved pencil-sharpener provided with a spiral knife near the hinge for the purpose of cutting the wood of the pencils. Fig. 9 is a plan view of the same, showing it opened.

Similar letters of reference indicate corresponding parts.

The longitudinally-flanged plates A A, of metal or some other suitable material—such as rubber, celluloid, &c.—are connected by means of a hinge, B. Convex plates C or solid blocks with convex surfaces are attached to the

inner sides of the plates A A by sliding the edges of the plates C in between the plate A and its longitudinal flanges, as is shown in the cross-sectional elevations of the drawings.

The convex surfaces of the plates C are covered with emery-paper, sand-paper, shark or dogfish skin, or are roughened by making indentations on the plates, as shown in Fig. 6, or are prepared in any other suitable manner, so that they will abrade.

A strip, D, of cloth, felt, or other fibrous or hairy material is fastened to the inner end of each convex surface for the purpose of wiping the dust from the pencil-point.

My sharpener consists essentially of the parts described above; but the same may be modified without deviating from the main feature of the invention. If the front end pieces of the plates A A are made higher than the convex plates C, these plates C will be gently inclined toward each other, as shown in Fig. 3.

The plates C may be united by a band-spring, F, which keeps them separated, in place of the hinge B, as shown in Figs. 4 and 5.

A conical cutter, G, for cutting the wood of the pencils may be attached to the upper plate, A, as shown in Figs. 6 and 7; or this cutter or sharpener may be made in two parts, which are attached to the inner ends of the plates C, and form a complete conical cutter or sharpener when the device is closed, as is shown in Fig. 8.

The operation is as follows: If the pencil is incased in wood, like the ordinary lead-pencil, the wood is first cut in the cutter G. The pencil-point is then passed in between the two roughened convex plates C C, and is then twirled and rotated or rubbed on these plates until the point has the desired shape. The dust is brushed from the point by passing it over the pads D D.

Any kind of pencil can be sharpened very conveniently and rapidly, and if the roughened surfaces become smooth they can be removed and replaced by fresh roughened surfaces.

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

1. A pencil-sharpener made substantially as  
herein shown and described, and consisting of  
two roughened convex plates attached to each  
other at one end by a hinge or band-spring, as  
5 set forth.

2. In a pencil-sharpener, the combination,  
with the plates A A, connected by a hinge or  
spring, of the roughened convex plates C C,  
and the strips D, of cloth or analogous mate-

rial, substantially as herein shown and de- 10  
scribed, and for the purpose set forth.

This specification signed by me this 30th day  
of October, 1880.

FRANZ F. KULLRICH.

Witnesses:

FRANZ SCHULTZE,  
BERTHOLD ROI.