

(No Model.)

J. T. & H. W. MORGAN.
PENCIL SHARPENER.

No. 418,376.

Patented Dec. 31, 1889.

Fig: 1.

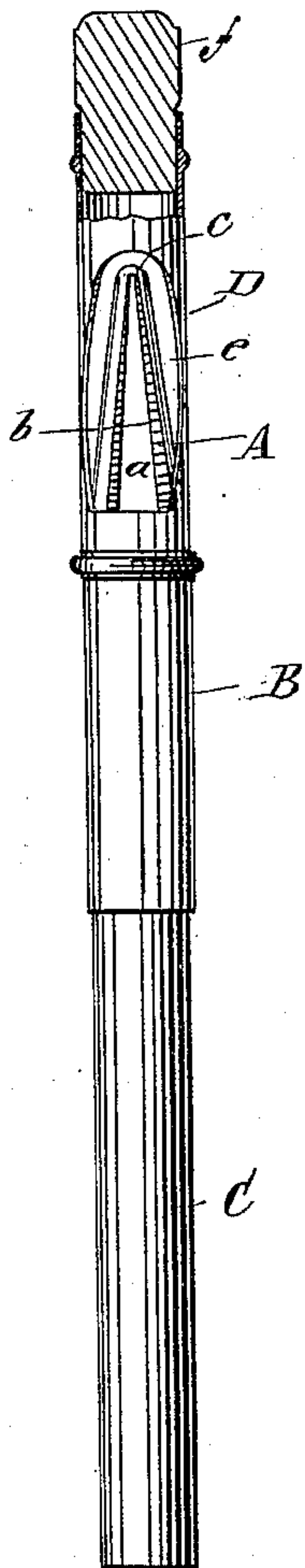


Fig: 2.

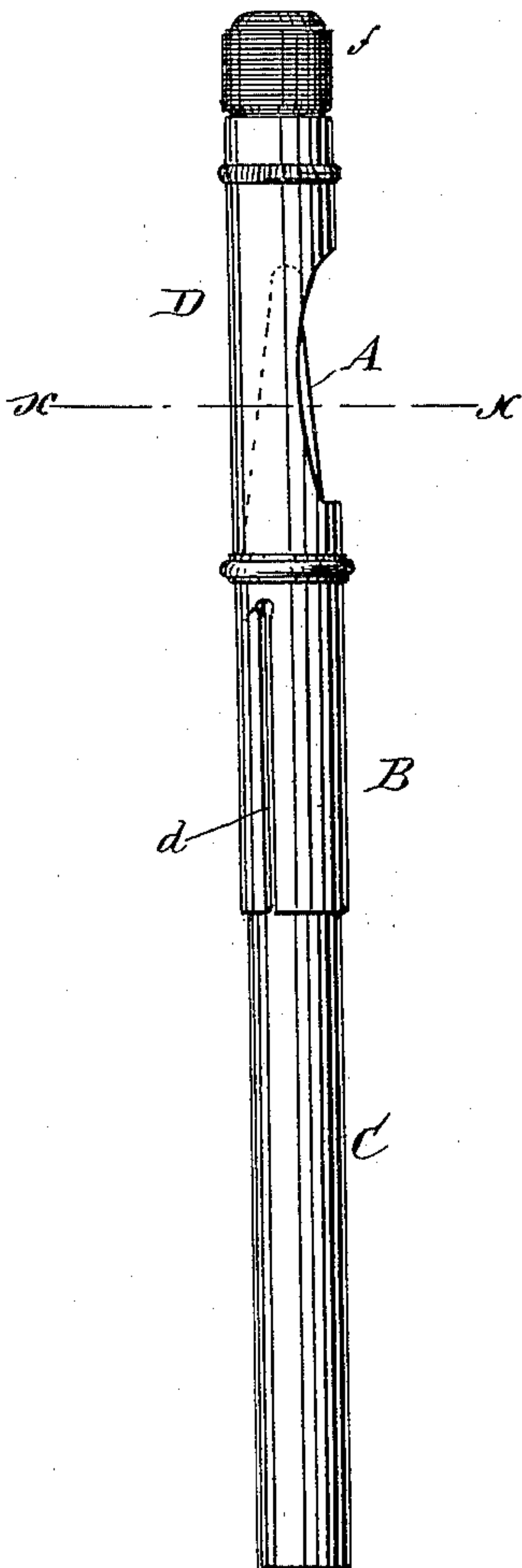


Fig: 4.

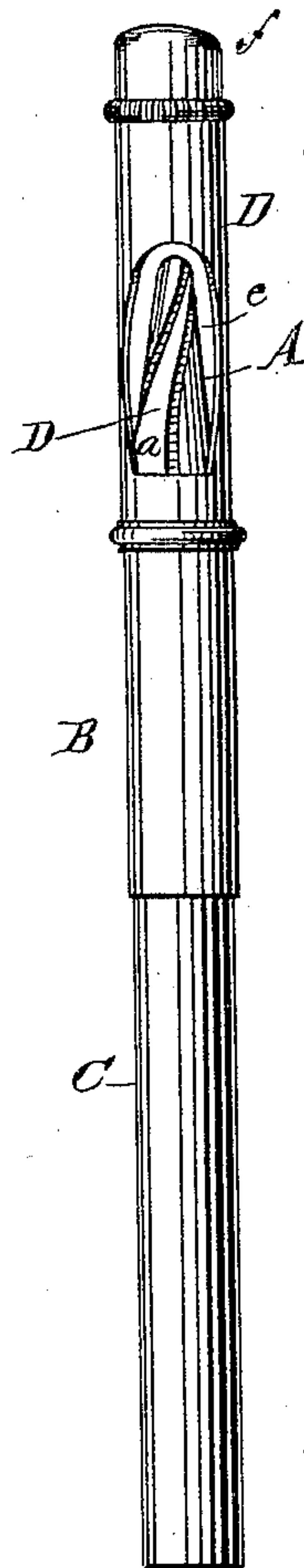
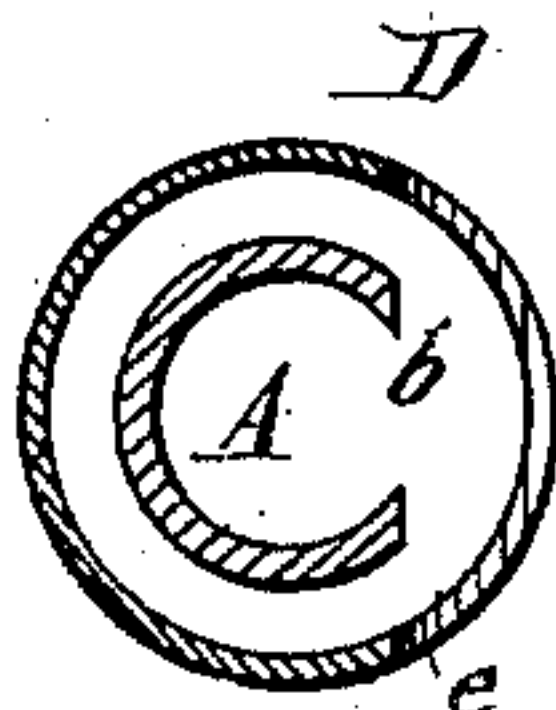


Fig: 3.



WITNESSES:

Chas. Nida.
C. Sedgwick

INVENTOR:
J. T. Morgan
BY *H. W. Morgan*
Munn & Co.
ATTORNEYS.

UNITED STATES PATENT OFFICE.

JAMES T. MORGAN AND HUBERT W. MORGAN, OF WINSTED, CONNECTICUT.

PENCIL-SHARPENER.

SPECIFICATION forming part of Letters Patent No. 418,376, dated December 31, 1889.

Application filed May 13, 1889. Serial No. 310,551. (No model.)

To all whom it may concern:

Be it known that we, JAMES T. MORGAN and HUBERT W. MORGAN, both of Winsted, in the county of Litchfield and State of Connecticut, have invented a new and Improved Pencil-Sharpener, of which the following is a specification, reference being had to the annexed drawings, forming a part thereof, in which—

10 Figure 1 is a front elevation, partly in section, of our improved pencil-sharpener. Fig. 2 is a side elevation. Fig. 3 is a transverse section taken on line *x x* in Fig. 2, and Fig. 4 is a side elevation of a modified form.

15 Similar letters of reference indicate corresponding parts in all the views.

The object of our invention is to provide an instrument for sharpening lead-pencils quickly and perfectly without danger of breaking the point; also to furnish a convenient eraser to be used with the pencil-sharpener, forming together an attachment adapted to be carried with the pencil and changed from one pencil to another as the pencil is used up.

25 Our invention consists in a pencil-sharpener provided with a conical cutting end having a stop for preventing the lead from projecting through the end of the sharpener.

30 It also consists in the combination, with the sharpener, of a spring-clasp for holding and guiding the pencil.

The invention further consists in the combination, with the sharpener, of an eraser which also acts as a protector to the point of the sharpener.

40 The sharpener A is formed of a hollow truncated steel cone having a portion of one side removed, leaving in the side of the cone the tapering slot *a*, and at the same time forming the cutting-edge *b*. The smaller end of the conical steel cone is closed by a cap *c*, which prevents the lead from projecting beyond the end of the sharpener.

45 The sharpener may be used independently

of the other attachment; but we prefer to connect with it permanently a sleeve B of spring material, furnished with a slot *d* in one side thereof for receiving and guiding the pencil C; and to prevent injury to the pockets by the pointed end of the sharpener, and, further, to admit of carrying an eraser with the pencil, we attach to or form upon the sleeve B a tubular extension D, having in one side thereof an opening *e* for the escape of the chips, and in the end of the said tubular extension we insert a rubber eraser-tip *f*.

The pencil is sharpened by inserting it in the sleeve B and turning it, so as to cause it to revolve against the cutting-edge *b*, thereby removing the wood of the exterior of the pencil, reducing it to a conical form and exposing the lead at the end of the wood until the lead strikes the cap *c*, which limits the amount removed from the pencil.

Our improved sharpener gives a conical point to the lead, and the waste of the pencil by the breaking of the lead or the forming of long points which are easily broken is avoided.

In lieu of forming the cutting-edge straight, as shown in Fig. 1, we may give it a spiral form, as shown in Fig. 4, with the advantage of a drawing cut.

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

1. The combination, with the conical pencil-sharpener A, of the cap *c*, attached to or formed upon the smaller end and closing it, substantially as specified.

2. The conical pencil-sharpener A, provided with the cutting-edge *b*, the cap *c*, closing the apex of the cone, and the slotted spring-sleeve B, attached to or formed integrally with the sharpener, substantially as specified.

JAMES T. MORGAN.

HUBERT W. MORGAN.

Witnesses:

GEORGE M. CARRINGTON,

GEO. M. WENTWORTH.