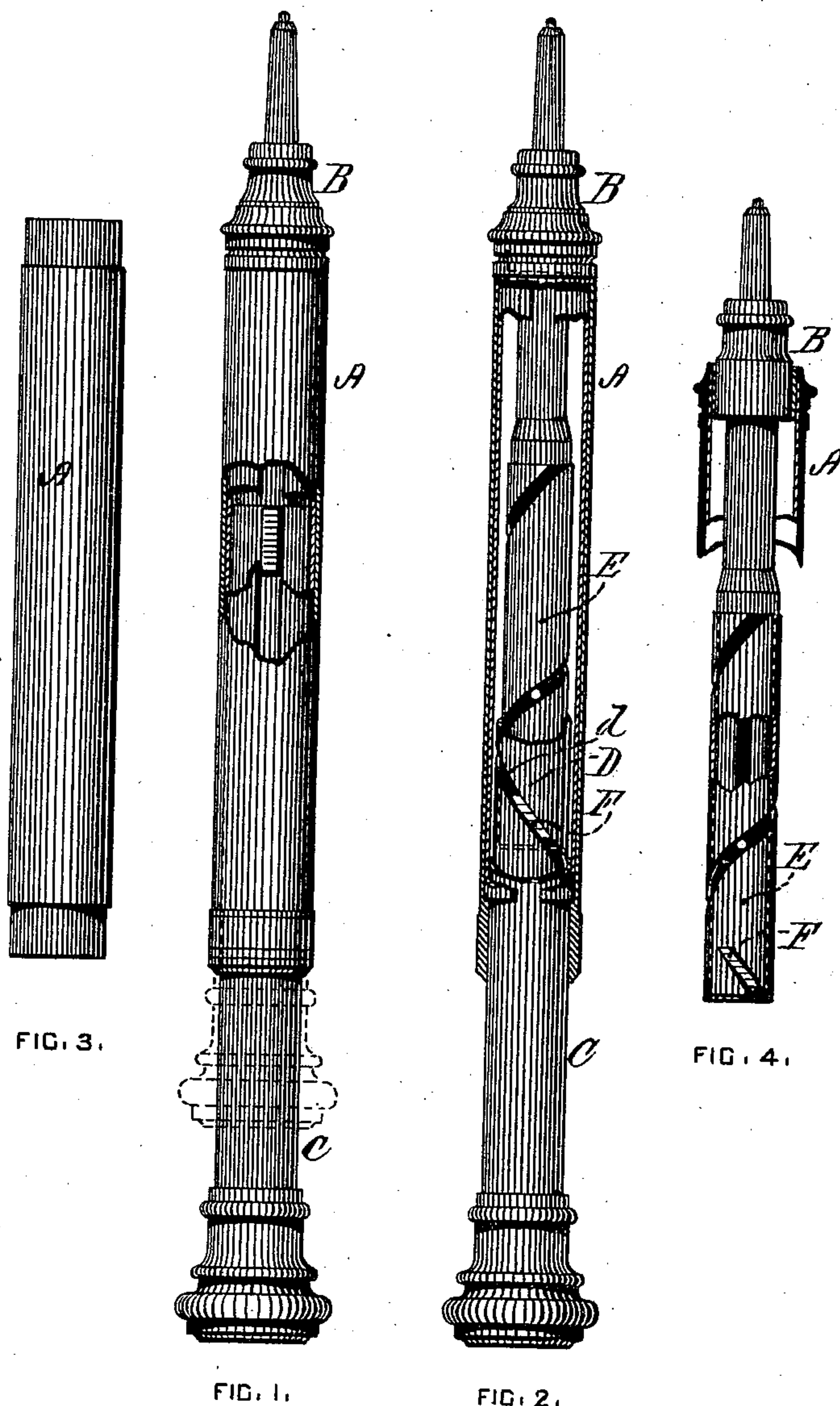


A. T. CROSS.
Magic Pencil-Case.

No. 164,430.

Patented June 15, 1875.



WITNESSES,

Frank T. Pearce
Socrates Scholfield

INVENTOR,

Alonso T. Cross

UNITED STATES PATENT OFFICE.

ALONZO T. CROSS, OF PROVIDENCE, RHODE ISLAND.

IMPROVEMENT IN MAGIC-PENCIL CASES.

Specification forming part of Letters Patent No. **164,430**, dated June 15, 1875; application filed March 1, 1875.

To all whom it may concern:

Be it known that I, ALONZO T. CROSS, of Providence, in the State of Rhode Island, have invented an Improvement in Magic-Pencil Cases, of which the following is a specification:

The nature of my invention consists in the employment of a spirally-formed feather or pin to operate in the screw-slot of the magic mechanism, in lieu of the cylindrical pin heretofore universally used, and which does not perform its work with the desirable smoothness, certainty, and durability, owing to the shortness of the bearing upon the sides of the screw, so that any slight roughness in the screw-slot will cause the magic mechanism to operate with unevenness, which will gradually grow worse, and finally render the pencil inoperative by reason of the resulting injury to the screw. I have entirely removed the difficulty referred to by the employment of a spirally-formed pin or feather made to fit the incline of the screw, whereby a long bearing and wearing surface is secured, by means of which the slight roughness or irregularities of the sides of the screw are successfully bridged over and rendered nugatory.

In the drawing, Figure 1 is a side view of a magic pencil, with a portion of the outer case broken away, so as to show a portion of the interior mechanism. Fig. 2 is a sectional side

view. Fig. 3 is a view of the outer case or tube. Fig. 4 is a view of a portion of the pencil mechanism.

A is the outer tube or case; B, the tip by means of which the pencil mechanism is connected to the tube A, either by means of solder or by friction, as preferred. C is the extension-tube, inside of which is secured the screw-slotted tube D. Upon the screw-tube E is soldered the spirally-formed feather or pin F, which operates within the screw-slot *d* of the tube D. I prefer to cut out the feather F from a longitudinally-divided tube of the proper diameter, and, after soldering the piece so obtained upon the tube E, I mill it off on both sides so as to exactly fit the pitch of the screw-slot *d*.

The feather or pin F, constructed as above described, may be more cheaply made and attached than the ordinary cylindrical pin heretofore used, and the durability of the pencil is greatly increased.

I claim as my invention—

The spirally-formed feather F, attached to the screw-tube E in a magic-pencil case, in combination with the tube D, having the screw-slot *d*.

ALONZO T. CROSS.

Witnesses:

FRANK T. PEARCE,
SOCRATES SCHOLFIELD.