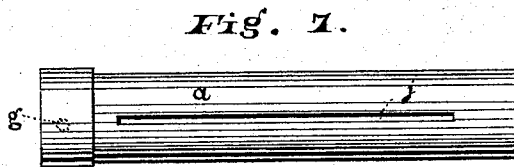
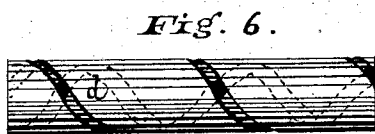
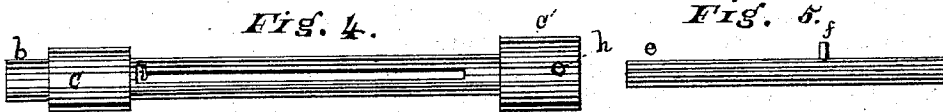
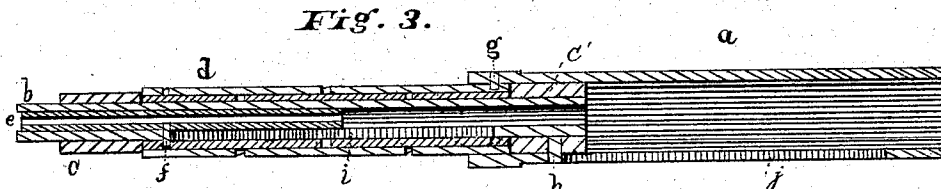
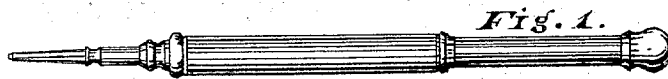


J. HOLLAND.
Pencil-Cases.

No. 157,826.

Patented Dec. 15, 1874.



Attest
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UNITED STATES PATENT OFFICE.

JOHN HOLLAND, OF CINCINNATI, OHIO.

IMPROVEMENT IN PENCIL-CASES.

Specification forming part of Letters Patent No. **157,826**, dated December 15, 1874; application filed October 8, 1874.

To all whom it may concern:

Be it known that I, JOHN HOLLAND, of the city of Cincinnati, Hamilton county, State of Ohio, have invented a certain new and useful Improvement in Pencil-Cases, of which the following is a specification:

This invention relates to that class of pencil-cases consisting of telescopic shells, combined with each other in such a manner that, by extending the holder, the tip is advanced to its working position, and by pushing in the same the tip is retracted.

My improvement consists in providing a cylinder which is spirally grooved externally and internally, the one being a right and the other a left hand spiral, and journaling the same between collars upon a tube with a straight slot, the whole to slide in another tube with a slot through part of its length, and arranging suitable pins to slide in these slots and grooves, so as to produce a smooth even movement in extending the case, thus avoiding the friction produced by one spirally-slotted tube sliding within another.

Figure 1 is the case extended in its working position. Fig. 2 is the case in its retracted position. Fig. 3 is an enlarged axial section of the operative parts of the pencil-case in its protruded position. Figs. 4, 5, 6, and 7 are the same parts detached.

a is the outer cylinder, having a slot, *j*, through parts of its length, in which the pin *h* slides, and a pin, *g*, projecting inwardly near the front end to slide in the external spiral groove and revolve the cylinder *d*, when the case is extended or retracted. *b* is the journal upon which the tube *d* revolves, with the collars *c* and *c'* upon it, and a slot, *i*, through part of its length, through which the pin *f*, from

the tube *e*, passes, to engage in the internal spiral groove in the cylinder *d*. The slot *i* is extended at a right angle at its front, so that when the tip is extended the pin *f* will slip into this offset, and lock the tip so it will not slide back when in use. *d* is the spirally-grooved cylinder, the internal spiral being shown in dotted lines in Fig. 6. *e* is the inner tube, to the front end of which the tip is attached. *f* is the pin fixed in the tube *e*, by which the said tube is moved back and forward as the cylinder *d* is revolved. *g* is a pin attached to the tube *a*, and projecting inwardly into the spiral groove in the cylinder *d*, by means of which the cylinder *d* is revolved, when the tube *a* is slipped forward or back. *h* is a pin fixed in the collar *c'*, and projecting through the slot *j*, to prevent the tube *b* and its collars *c* and *c'* from revolving. The outer shells are attached in the usual way—that is, the outside one to the front of the tube *b*, and the collar *c* and the one that slides into it to the tube *a*.

I claim—

1. In combination with a pencil-case, the cylinder *d* with an external and internal spiral groove, the one being a right and the other a left hand spiral, substantially as shown and described.

2. In combination, the tube *a*, having pin *g*, tube *b*, provided with the slot *i*, and collars *c* and *c'*, and tube *e*, furnished with pin *f*, with the double spiral cylinder *d*, substantially as shown and described.

JOHN HOLLAND.

Witnesses:

E. D. GRAFTON,
GEORGE J. MURRAY.