

J. Richardson. Sheet 1. 2 Sheets.
Pen & Pencil Case.

N^o 11,873.

Patented Oct. 31, 1854.

Fig. 1.

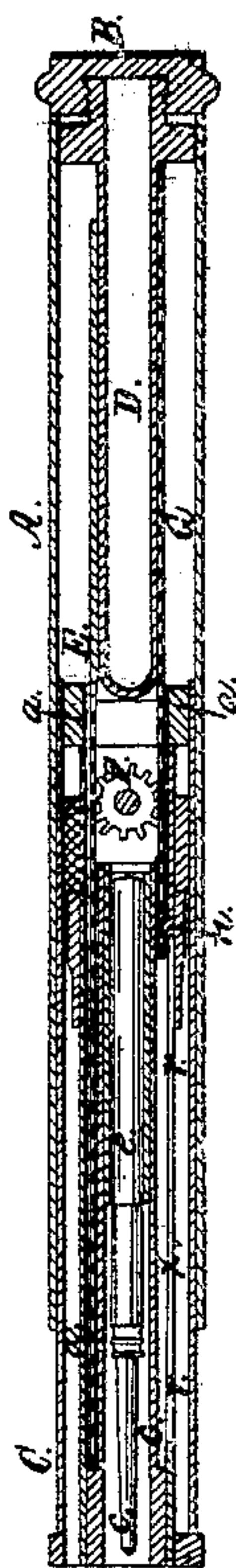


Fig. 2.

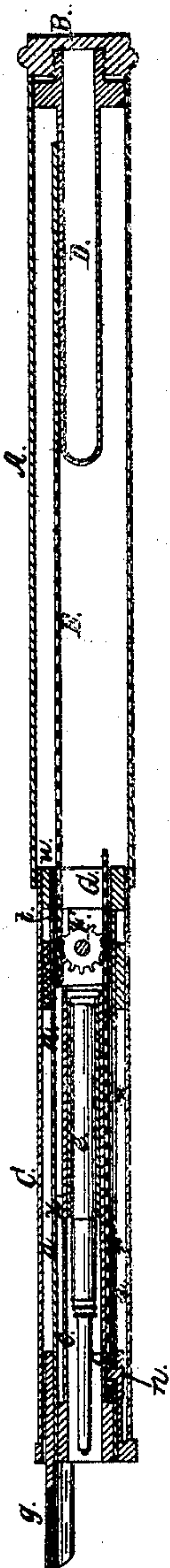
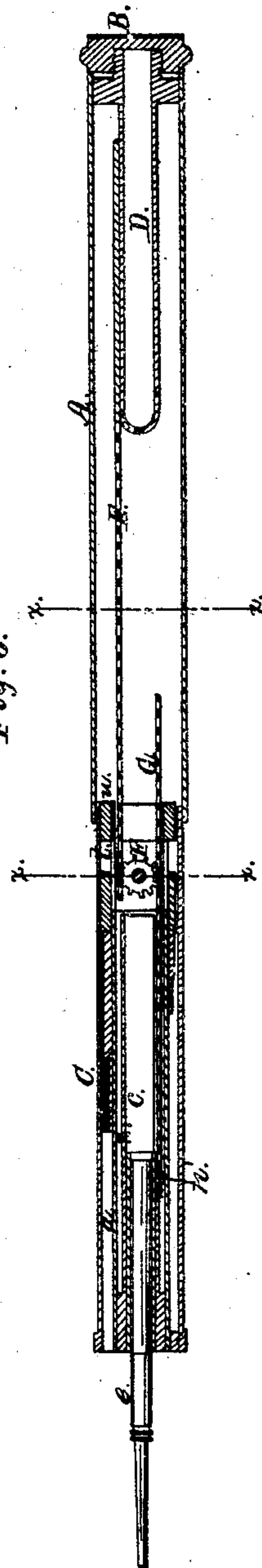


Fig. 3.



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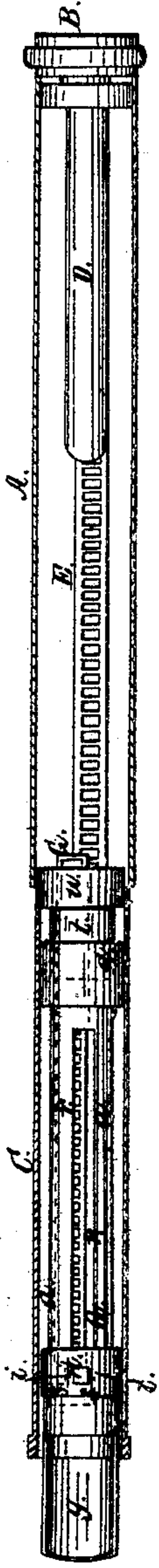


Fig. 5.

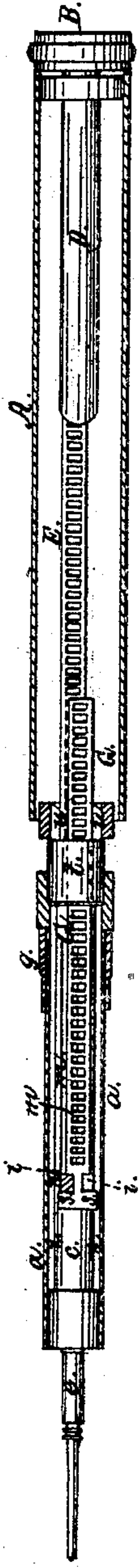


Fig. 6.



Fig. 7.



UNITED STATES PATENT OFFICE.

JOHN RICHARDSON, OF NEW YORK, N. Y.

IMPROVED PEN AND PENCIL CASE.

Specification forming part of Letters Patent No. 11,873, dated October 31, 1854.

To all whom it may concern:

Be it known that I, JOHN RICHARDSON, of the city, county, and State of New York, have invented certain new and useful Improvements in Pen and Pencil Cases, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings of the same, which make part of this specification, and in which—

Figure 1 represents a longitudinal section of the instrument through its axis, with pen and pencil both drawn in and the case contracted to its shortest limit. Fig. 2 represents a similar section, but with the case extended, the pen-holder protruded, and the pencil-holder retracted. Fig. 3 represents a similar view with the pencil protruded and the pen-holder retracted. Fig. 4 represents a view of the instrument with the outer case in section and the interior parts in elevation, the pen-holder being protruded, the pencil retracted, and the case extended. Fig. 5 represents a similar view showing one of the inner tubes in section and the interior parts in elevation. Fig. 6 represents a transverse section taken at the line $x x$ of Fig. 3, and Fig. 7 represents a like section taken at the line $y y$ of Fig. 3.

My invention consists of an improved construction and arrangement of mechanism for protruding and retracting the pen and pencil at the same end of the case, this mechanism operating in such manner that the act of extending the case will protrude the pen or pencil, as the case may be, and the act of contracting the case will draw the same in again.

The case of the instrument consists of a large tube A, on the upper end of which the head or cap B is screwed, and of a smaller tube C, which slides freely into the lower end of the large tube, in order that the case may be extended and contracted in the manner of a telescope.

The upper part of the large tube has a pencil-point reservoir D firmly secured in it, and to this reservoir is secured a plate-rack E, with a series of regular perforations to receive the teeth of a pinion F, secured in the upper end of the lower tube C, so that by sliding the lower tube C into and out of the upper tube the pinion F will be turned in opposite directions. This pinion takes into a second rack G, like that already described, in the upper

part of the case. This second rack is arranged to slide within the lower tube C in an annular space between two tubes a and c contained within it. The innermost and smallest of these tubes contains the pencil-holder e , while the space between the middle tube a and the tube C contains the pen-holder g . The lower extremity of the second rack G has a notch i on each side, in order that when moved to the right the notch of that side may fasten to the slide or holder of the pencil, and at the same time disconnect itself from the slide of the pen, and when turned to the left it may fasten to the pen and be detached from the pencil. Pins or stumps n and n' project from the upper ends of the pen and pencil slides for the notches on the driving-rack G to engage in. The lower sides s of the notches n and n' , Figs. 4 and 5, project farther than the upper sides, in order that they may spread far enough to draw in both the pen and pencil holders whenever either is drawn in, in case the one which ought to be left in has fallen down more or less, and hold them in the proper position for the notches in the rack to be engaged with the stump of either, as the operator may desire.

The form of the lower rack G with its notches is seen in plan in Fig. 5, and in section in all the other figures.

The outermost of the annular spaces within the lower portion of the case is to receive the pen-holder and pen, and the inner annular space is for the racks E and G to slide in, while the central tube is to receive the pencil-holder. Both the inner tubes a and c are perforated with longitudinal slots. The slot m of the inner one c is for the stump n' of the pencil-holder to project through outward into the space traversed by the rack, and the slot r of the outer of these two tubes a is for the stump n of the pen-holder to project through inward into the space traversed by the rack. By this arrangement a single rack is rendered capable of operating both the pen and pencil holder.

The racks and pen-holder are curved concentrically with the tubes to render them stiff and that they may work freely in a narrow space.

The pinion F is mounted on an axis which extends diametrically across a ring t . This ring fits loosely into the tube a , within which

it is free to turn on its own axis, but is restrained from moving longitudinal by the upper end of the tube *c*, which is below it, and by a ring *u*, attached above it to the tube *C*. This freedom of rotation of the pinion and its axis at right angles to its plane of rotation on its axis admits of the rack being turned in the annular space *x*, to engage with the pen and pencil holders alternately, as it is desired to operate upon the one or the other. This turning movement of the rack is effected while the case is contracted by taking hold of the lower part *C* of the case with one hand and the upper part *A* of the case with the other hand, and turning them on their axes to the right or left until the rack *G* engages the stump of the pen or pencil, as the case may be, when on extending the case the desired instrument will be protruded into the proper position for use.

From the construction and arrangement of the parts as described it is plain that when the lower tube is drawn out the pinion will run down the upper rack and at the same time drive down the lower rack with the pen or pencil, as the case may be, a correspond-

ing distance, the motion being continued until the stump of the holder protruded reaches the lower end of the slot in the tube through which it passes, which arrests its further motion, and this also prevents the upper and lower tubes *A* and *C* of the outside of the case from being drawn entirely apart when the case is extended. On returning the lower tube *C* back into the upper tube the motion of the pinion, racks, and holder will be reversed, the case contracted, and the holder drawn in.

What I claim as my invention, and desire to secure by Letters Patent, is—

The construction and arrangement of a pen and pencil case, substantially as herein described, so that by the acts of extending and contracting the case either the pen or pencil can be protruded and drawn in, as herein set forth.

In testimony whereof I have hereunto subscribed my name.

JOHN RICHARDSON.

Witnesses:

JAMES GRAHAM,
A. BOGARTY.