

(No Model.)

C. T. McCLINTOCK.
PENHOLDER.

No. 474,644.

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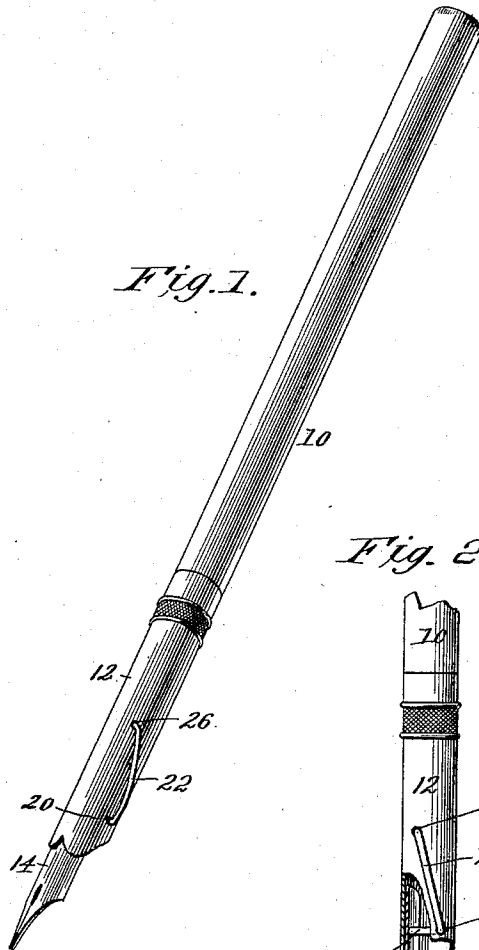


Fig. 2.

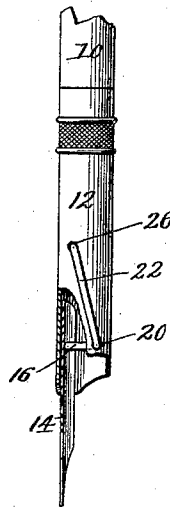


Fig. 3.

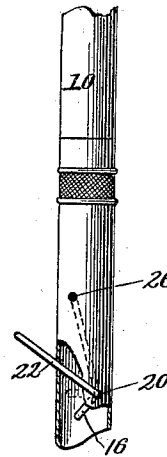


Fig. 4.

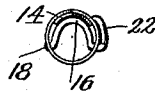


Fig. 5.



WITNESSES:

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PENHOLDER.

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To all whom it may concern:

Be it known that I, CHARLES T. MCCLINTOCK, a citizen of the United States, residing at Oil City, in the county of Venango and State of Pennsylvania, have invented a new and useful Improvement in Penholders, of which the following is a specification.

This invention is related to a large class of devices for facilitating the work of the draftsman and writer, and it is specifically designed to aid in the easy removal and restoration in position of writing and drawing pens in a convenient holder adapted for carrying the same while in use.

In the accompanying drawings, Figure 1 represents in perspective the penholder with a pen in place. Fig. 2 shows the pen in place in longitudinal section and the lower end of the holder in elevation, part of the latter being broken away to let the interior construction be seen. Fig. 3 is a view similar to Fig. 2, except that the clamping device is open and the pen removed. Fig. 4 is an end elevation, looking into the barrel. Fig. 5 is a perspective view of the bent wire that constitutes the elastic cam and lever.

This penholder has outwardly the well-known appearance common to such articles of stationery, and consists of a short round rod of wood 10, ending below in a barrel or sleeve of thin metal 12. In this barrel the pen 14 is held by what may be described as an "elastic cam" 16. This cam is a simple U-bend in a piece of hard spring-wire, which swings on an axis formed by short returns of said wire, (see 18 in Fig. 5,) which pass through little holes opposite each other in the sides of the barrel, (marked 20 in Fig. 2.) Outside one of the returns of wire on which the cam oscillates the wire is prolonged for about half an inch and is again bent over parallel to the side of the barrel, or nearly so. It is marked 25 in the drawings. This wire arm acts as a side lever by which the elastic cam is operated. Its outer extremity is again bent at right angles, or nearly so, inward toward the barrel, forming a short stud 24. (See Fig. 5.) This short projection drops into a hole made for it in the barrel (shown at 26 in Fig. 3) when the side lever 22 has moved the U-shaped cam inside into the position most advantageous for holding the pen—that is, very

nearly at right angles to the axis of the barrel. When the bow of wire which forms the cam is in this position, the distance between it and the upper inner surface of the barrel is less than the thickness of the thinnest steel pen, and therefore if the upper part of such a pen be inserted between the cam and the barrel (the lever being raised at the time) the depression of the lever 22 will pinch the pen before the stud 24 reaches the hole made for it, (marked 26.) By forcing the side lever down so that the stud enters the hole and locks it, the elasticity of the lever is imparted to the cam and the pressure exerted upon the pen is an elastic pressure. This is of much importance, because the cam is thereby made to pinch with almost equal force pens of varying thickness, so that practically my holder will be found to take and hold firmly any steel or gold pen in a sure and satisfactory way. It will be seen that the arm 22 acts as a spring in two directions—namely, inward against the barrel, so as to keep the stud locked, and upward, so as to force the cam with an elastic pressure against the under side of the pen, said cam being at the time in a position capable of much resistance, because so nearly at right angles to the pen.

In a penholder of this kind one pen can be substituted for another without a moment's loss of time or dirtying the hands even when the old pen is badly corroded after long use, and it will be seen that in lifting the little arm the tendency is to throw the old pen out.

A cam made in the manner here shown pivoted across the middle of the barrel might be actuated by a side lever adapted for being either raised or pressed downward; but I have found by experience that it is more convenient and better to raise it only, and therefore have placed the hole 26 above the central line of the holder and have given the stud 24 a set downward, so that the side arm becomes more firmly locked when pressed in the wrong direction.

I do not confine myself to the precise details of construction herein set forth so long as the principles involved are maintained, for it is evident that many changes could be made without departing from the essential features of my invention. I have, for instance, described and shown all that is added to the

simple barrel as consisting of a single piece of hard wire bent with definiteness into a certain form. This I believe to be the simplest and best manner of carrying out the invention, because of the strength of a device made of a single piece, the ease and cheapness with which it can be manufactured, and the great facility which the round wire affords for getting the device in place by insinuating the cam through one of the side holes and the return beyond it (which forms part of the axis) through the other; but it is plain that the cam need not be of wire nor of one piece with the arm outside; also, that the latter may be on either side and that in place of a stud on its end said end could be made to drop between slight convex prominences on the barrel, pressed there when the latter is being made.

20 In this specification by the term "elastic cam" a cam is understood which when it exerts a clamping pressure, however great, does so in a yielding way, whereby it accommodates itself to varying conditions within a short range and as a clamp gives practically uniform results. The function of such a cam in my invention is, as before explained, to enable pens of many shapes and kinds and very different thicknesses to be held by one and the same cam; but it is evident that for a constant pen or for a number of different pens which only differ in parts external to the holder a rigid cam controlled and locked by a stud on the end of a rigid side lever could be made to work well. I do not therefore insist upon elasticity in all cases, but in the foregoing have described the best way known to me of carrying out my invention, adding as the result of experience the element of elasticity to secure more general adaptability and usefulness.

What I claim is—

1. A penholder provided with a cam swinging upon a cross-axis at right angles to the length of the holder and within the same, made

elastic by a spring external to the holder, and attached firmly thereto, substantially as described.

2. A penholder provided with a pen-clamping device consisting of a swinging cam, a side lever attached thereto, and a locking-stud on said lever, substantially as described.

3. A penholder provided with a pen-clamping device consisting of a swinging cam, an elastic side lever attached thereto, and a locking-stud on said lever, substantially as described.

4. In a penholder provided at its lower end with a hollow barrel of thin metal, the combination of a cam of bent wire placed therein and swinging on a cross horizontal axis, an elastic side lever connected with said cam, adapted to swing and close the same, and means for locking the cam, when pressed upward, against the pen, substantially as described.

5. In a penholder having at its lower end a barrel of thin metal, the combination of a U-shaped cam of hard wire swinging in the barrel on short cross-returns of the same wire, with a side arm, also of the same wire, terminating in a stud adapted to enter a hole in the barrel, whereby the cam is held in elastic contact with the pen, substantially as described.

6. In a penholder provided at its lower end with a barrel of thin metal, the lever 22 on the side of the same acting as a depressing-lever and as a spring upward and inward, in combination with the cam 16, the stud 24, and the hole 26, substantially as described.

7. As an attachment for penholders, the clamping device consisting of a piece of hard wire bent to form in one piece the U-shaped cam 16, with returns 18 18, lever 22, and stud 24, substantially as described and shown.

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Witnesses:

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