M. M. SMITH.

ADDING PENCIL.

No. 180,949. Patented Aug. 8, 1876.

Fig. 1

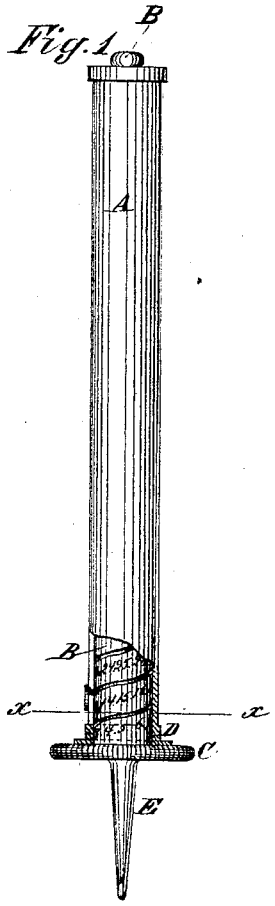

Fig. 2

WITNESSES:

H. Rydquist.

John Goetzals

INVENTOR:

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UNITED STATES PATENT OFFICE.

MARSHALL M. SMITH, OF GREEN TOP, MISSOURI.

IMPROVEMENT IN ADDING-PENCILS.

Specification forming part of Letters Patent No. **180,949**, dated August 8, 1876; application filed July 11, 1876.

To all whom it may concern:

Be it known that I, MARSHALL M. SMITH, of Green Top, county of Schuyler, and State of Missouri, have invented a new and Improved Adding-Pencil, of which the following is a specification:

Figure 1 is a side view of my improved adding-pencil, part being broken away to show the construction. Fig. 2 is a cross-section of the same taken through the line *x x*, Fig. 1.

The object of this invention is to furnish an improved adding-pencil, simple in construction, inexpensive in manufacture, convenient in use, and reliable in operation.

The invention consists in the combination of the flange provided with the nine digits and zero, and the milled flange provided with the letters, with the slotted case, and the grooved cylinder, as hereinafter fully described.

Similar letters of reference indicate corresponding parts.

A is a hollow cylinder, which is slotted longitudinally, and in which is placed a cylinder, B. The cylinder B is swiveled at its upper end to the upper end of the case A, and has a spiral groove formed in it, from its lower to its upper end, to receive the pointer, which is forced up the slot of the case A and the groove of the cylinder B, by turning the said cylinder within the said case. Upon the cylinder B, along the spiral groove, or between the coils of said groove, is formed a series of consecutive numbers. Around the lower end of the case A is formed a ring-flange, D, upon which is formed the nine digits and the zero, as shown in Fig. 2. Around the lower end of the cylinder B is formed a ring-flange, C, upon which are formed the letters of the alphabet, or as many of said letters as there are numbers in each coil of the cylinder B. The edge of the flange C is milled, to enable it to be more easily turned. Upon the lower end of the cylinder B is formed a pencil or pointer, E.

In using the pencil to add up a column of figures, as the point E is placed upon a figure to be added, the eye seeks the same figure upon the flange D, and notices the letter upon the flange C, that stands directly opposite said figure. The flange C is then turned to bring the said letter opposite the zero upon the said flange D. This turns the cylinder B, and carries the pointer up the groove a corresponding distance, and it now points to a number upon said cylinder equal to the sum of the said figure and the number previously obtained.

When the column has been added, and the sum noted, the cylinder is turned back to bring its pointer to the zero-mark of its numbers, and the next column is added in the same way, and so on.

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

The combination of the flange D, provided with the nine digits and zero, and the milled flange C, provided with the letters, with each other, and with the case A and the grooved cylinder B, substantially as herein shown and described.

MARSHALL M. SMITH.

Witnesses:

JAMES T. GRAHAM,

T. B. MOSHER.