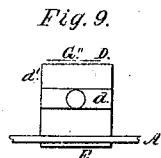
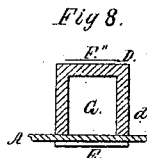
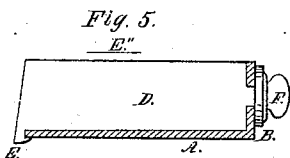
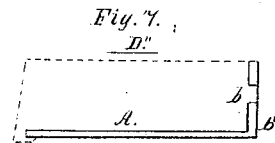
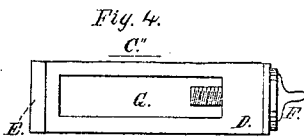
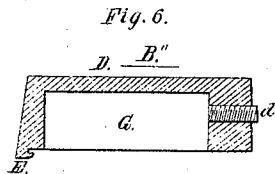
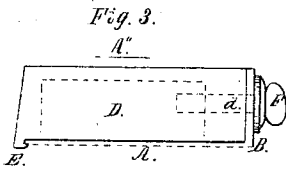
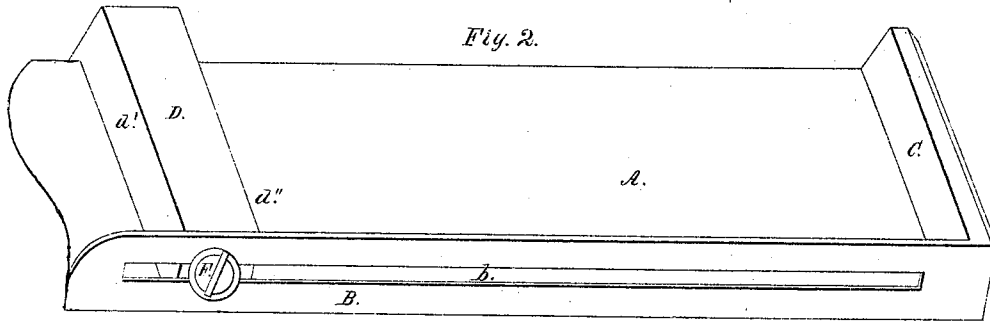
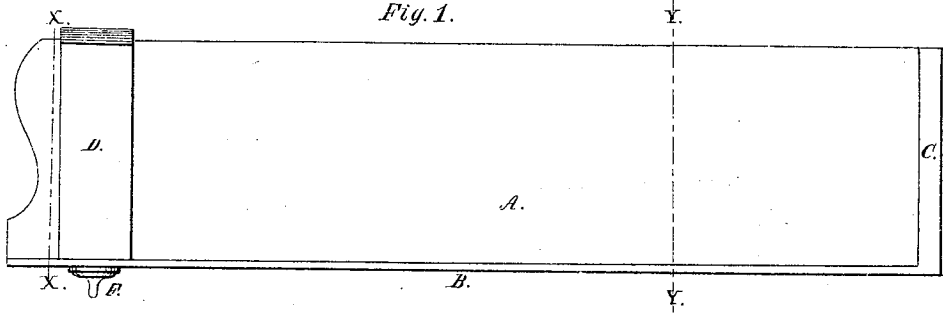


*F. W. Murray*  
*Slide for Composing Stick.*

*N<sup>o</sup> 88800.*

*Patented Apr. 13, 1869.*



*Witnesses.*

*Vincent Schwab*  
*John R. Taylor*

*Inventor.*  
*Francis W. Murray*

# United States Patent Office.

FRANCIS W. MURRAY, OF CINCINNATI, OHIO.

Letters Patent No. 88,800, dated April 13, 1869.

## IMPROVEMENT IN COMPOSING-STICKS.

The Schedule referred to in these Letters Patent and making part of the same.

### To whom it may concern:

Be it known that I, FRANCIS W. MURRAY, of Cincinnati, Hamilton county, Ohio, have invented a new and useful Improved Slide for Printers' Composing-Sticks; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

This invention relates to a slide which has two straight sides, and of a form which admits, by the use of two of the said slides, of the matter being set up in duplicate.

The slides in general use in a printer's composing-stick, are in the shape of a carpenter's square, having one side only for contact with the type, the longest arm of the same being fastened to the back of the stick by different modes. This formation of the slide renders a large portion of the stick unavailable.

In the drawings—

Figure 1 is a plan view of my improvement.

Figure 2 is a perspective view.

Figure 3, a transverse section of the stick, in the line *x-x* of fig. 1.

Figure 4 is a bottom view of the slide.

Figure 5 is an end view of the stick.

Figure 6 is a longitudinal section of the slide.

Figure 7 is a transverse section of the stick, on the line *y-y* of fig. 1.

Figures 8 and 9 are respectively a transverse section, and an end view of the slide.

A is the stick proper, having upturned edges B C, the former of which has a slot, *b*, in which works a tongue, *d*, upon the slide D.

The slide has a lip, which extends around the lower edge of the stick, and serves to hold that end of the slide in place, at the same time admitting longitudinal adjustment of the slide upon the stick when the thumb-screw F is loosened.

The slide D is made with two parallel vertical sides, *d' d'*, for contact with the type, and consists, essentially, of a rectangular bar, with the lip E and tongue F, as shown upon its opposite ends, a chamber, G, in its lower side, as seen in figs. 4 and 6, not being an essential part of its conformation, but introduced to render the slide lighter.

Having thus fully described my invention,

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

The slide D, provided with the parts *d d'*, E F, substantially as described, for the purpose stated.

In testimony of which invention, I hereunto set my hand.

FRANCIS W. MURRAY.

Witnesses:

SAM'L KNIGHT,  
JAMES H. LAYMAN.