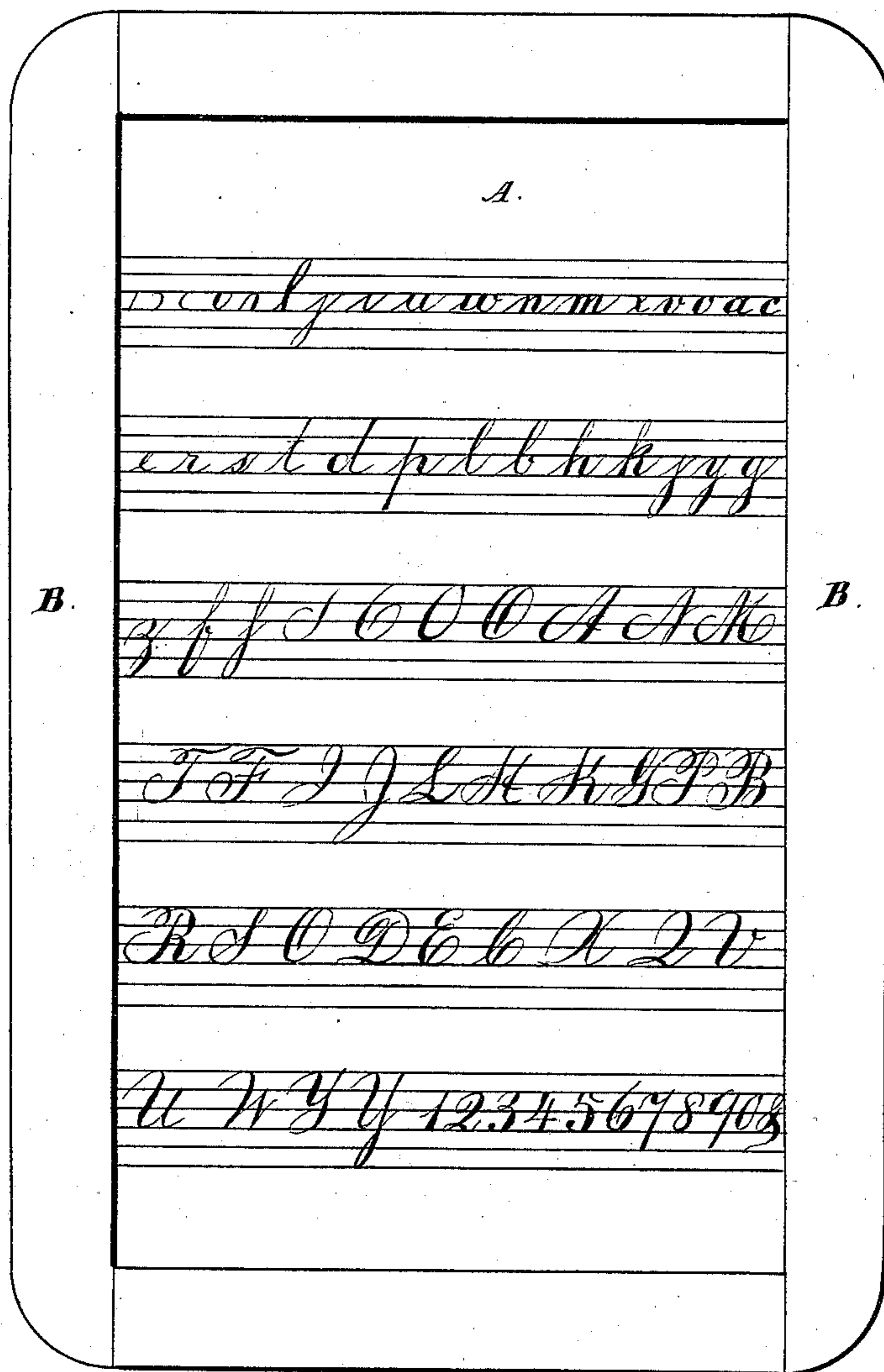


M. F. SULLIVAN.
Slate.

No. 221,947.

Patented Nov. 25, 1879.



Witnesses:
Q. W. Bond.
A. J. Brunz

Inventor:
Margaret F. Sullivan.

UNITED STATES PATENT OFFICE.

MARGARET F. SULLIVAN, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN SLATES.

Specification forming part of Letters Patent No. **221,947**, dated November 25, 1879; application filed December 16, 1878.

To all whom it may concern:

Be it known that I, MARGARET F. SULLIVAN, of the city of Chicago, Cook county, State of Illinois, have invented a new and useful Improvement in Slates, of which the following is a full description, reference being had to the accompanying drawing, in which the figure represents a face view of the slate with the copy cut thereon.

It is customary to provide the face of slates with lines cut thereon at regular distances apart, so as to leave spaces of the required width in which to insert the marks, letters, or characters which form the copy, the lines being so spaced as to give the relative heights of the body and stem of the letters and characters, and serving as guides to that extent in forming the letters or other characters.

In practice, with this style of slate it is necessary to write or form the desired copy between the lines with a pencil, requiring considerable labor and skill to do it properly, and the copy is liable to become blurred or erased in use, requiring the rewriting thereof.

Another objection to the use of written copies is the laborious work required of the teacher in having the letters and characters correctly formed by inexperienced persons, as with such copy the only guide for the different lines of the letters or characters is through the eye, which renders the formation thereof very laborious, as well as defective.

The object of this invention is to provide slates with permanent copies, which shall be adapted to aid in forming the letters, characters, &c., and thereby decrease the work required; and its nature consists in cutting the letters and other characters in the face of the slate, the depth of the cut being sufficient to enable the lines to be followed by the pencil, thus forming a guide for their perfect formation.

In the drawings, A represents the slate proper; B, the frame. The slate A may be of any of the well-known forms, natural or artificial, having the frame B secured thereto in any well-known manner.

The face of the slate is provided with a series of straight parallel lines cut therein, and in the spaces between such lines is arranged the matter which forms the copy. The lines which compose the copy are to be cut or indented in the face of the slate, so as to be permanent, which can be accomplished by what is known as the "sand-blast" process, and the depth of the cut is to be sufficient to form a guide for the pencil in following the lines.

In use the pencil is made to follow the cut, and, of necessity, the line formed must be a counterpart of the cut line, and a correct outline is given to the pencil-mark.

By thus forming the letters and characters in the face of the slate a copy is produced which is always ready for use; and by the use of such sunken lines to guide the point of the pencil great freedom of movement is given to the hand in guiding and using the pencils, the outlines produced will be uniform with the copy, the formation of the letters, &c., will require less time, the labor of teaching is made more easy and less laborious, and a more uniform and correct style of writing, &c., is produced.

I do not confine myself to the sand-blast process for cutting or indenting the lines, as any process which will sink the lines below the surface of the slate to form a guide for the pencil may be used.

I do not claim indented letters as applied to slates, as they have been heretofore used without lines.

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

As an improved article of manufacture, a slate having one or both faces provided with indented cross-lines and copy cut or indented across such lines to form guides for the pencil, substantially as specified.

MARGARET F. SULLIVAN.

Witnesses:

O. W. BOND,
H. F. BRUNS.