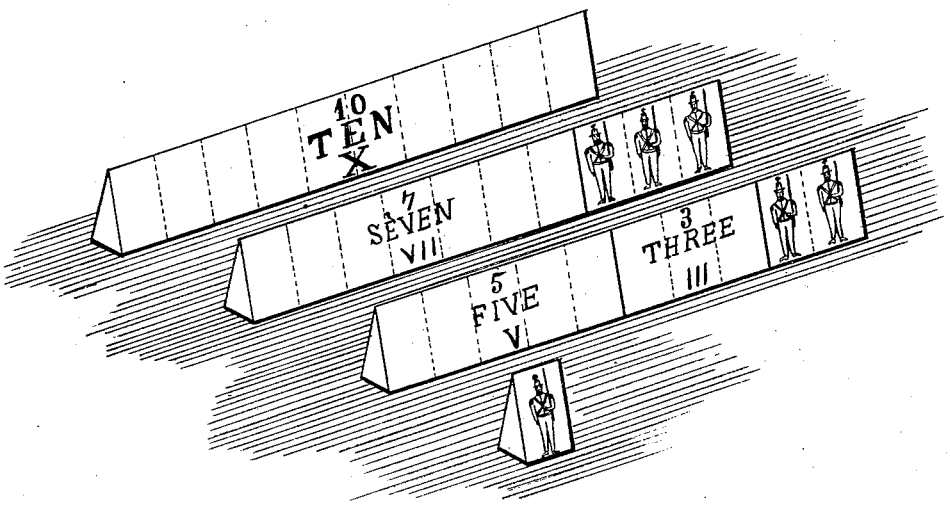
J. C. SMITH.

Arithmetical Toy-Blocks.

No. 167,030. Patented Aug. 24, 1875.



Witnesses,
Chas. H. Smith
Harold Sinnick

Inventor
John C. Smith.
per Lemuel W. Serrell
atty

UNITED STATES PATENT OFFICE.

JOHN C. SMITH, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN ARITHMETICAL TOY BLOCKS.

Specification forming part of Letters Patent No. **167,030**, dated August 24, 1875; application filed June 7, 1875.

To all whom it may concern:

Be it known that I, JOHN C. SMITH, of Brooklyn, in the county of Kings and State of New York, have invented an Improved Arithmetic-Block, of which the following is a specification:

The objects of this invention are amusement and instruction. I employ triangular strips cut off into lengths of one, two, three, four, five, six, seven, eight, nine, and ten inches, (or other integral parts,) and upon each of these lengths there are on one side as many figures or pictures, such as of soldiers, as there are inches or other integral parts in the length of the strip. On the other side is a word with the Roman and also the ordinary numerals corresponding to the length of the strip and the number of figures; hence, there is amusement in setting up the blocks or strips, and instruction by the comparison of lengths and their corresponding numbers. The words and figures are also learned corresponding to those numbers, so that a child can be taught, by inspection and observation of actual articles, the principles of addition, subtraction, multiplication, and division. At the same time relative values are impressed upon the mind by a comparison of relative lengths, and the corresponding sign and name associated with the representative value.

In the drawing, I have represented, by an isometrical perspective view, a number of these numerical toys, some with one side visible and others with the other side. By the dotted lines the relative lengths are indicated.

Taking the length represented by ten parts as the standard I provide one or more of the strips of this length. Also one or more of the length of nine, and so on. There should be twelve blocks of an inch in length, seven of two inches in length, three of four inches in length, and so on, in order that, by placing six and four together to make the length of ten, or three and seven, or two and eight, and so on, the relative lengths will become a matter of comparison and estimate.

To facilitate the computation and comparison one picture, such as of a soldier, is made to occupy a single space, so that there will be ten of these upon the longest block, and upon the others there will be two, three, four, &c., according to the length of the block or strip, and upon the back there will be a word, such as "one," "five," "ten," &c., accompanied by the corresponding ordinary figure and Roman numerals; hence, the blocks or strips will be complete in themselves, with all the elements required for instructive comparisons in length, and for teaching mental arithmetic.

The strips are, by preference, isosceles triangles sectionally, and may be of wood or other material with the pictures, figures, &c., printed, stenciled, or pasted thereon, or pasteboard or stiff paper may be folded into the desired shape to form the strip.

I do not claim a toy block formed by dividing a cube or square diagonally into two parts. In this instance the base of the isosceles triangle is the broadest, and the other two sides are too narrow in proportion to be usefully employed as the available surfaces for pictures, numbers, letters, &c. In my improved toy, herein described, the bases of the blocks are only broad enough to cause them to stand firmly, and the broad inclined surfaces are available for pictures, letters, &c., and a greater extent of surface for instructive illustrations is obtained from the same sized box of toy blocks, than from any other toy block heretofore made.

I claim as my invention—

The arithmetical toy herein described, consisting of blocks of wood or other material of various lengths, divided on one side into parts, which are integral, by pictures, and containing upon another side a numeral or word indicative of the number of said pictures, substantially as and for the purposes specified.

Signed by me this 4th day of June, A. D. 1875.

JOHN C. SMITH.

Witnesses:

GEO. T. PINCKNEY,

CHAS. H. SMITH.