E. H. KETCHUM.

EDUCATIONAL BLOCKS.

APPLICATION FILED JAN. 2, 1920.

1,354,910.

Patented Oct. 5, 1920.

2 SHEETS—SHEET 1.

Fig. 1.

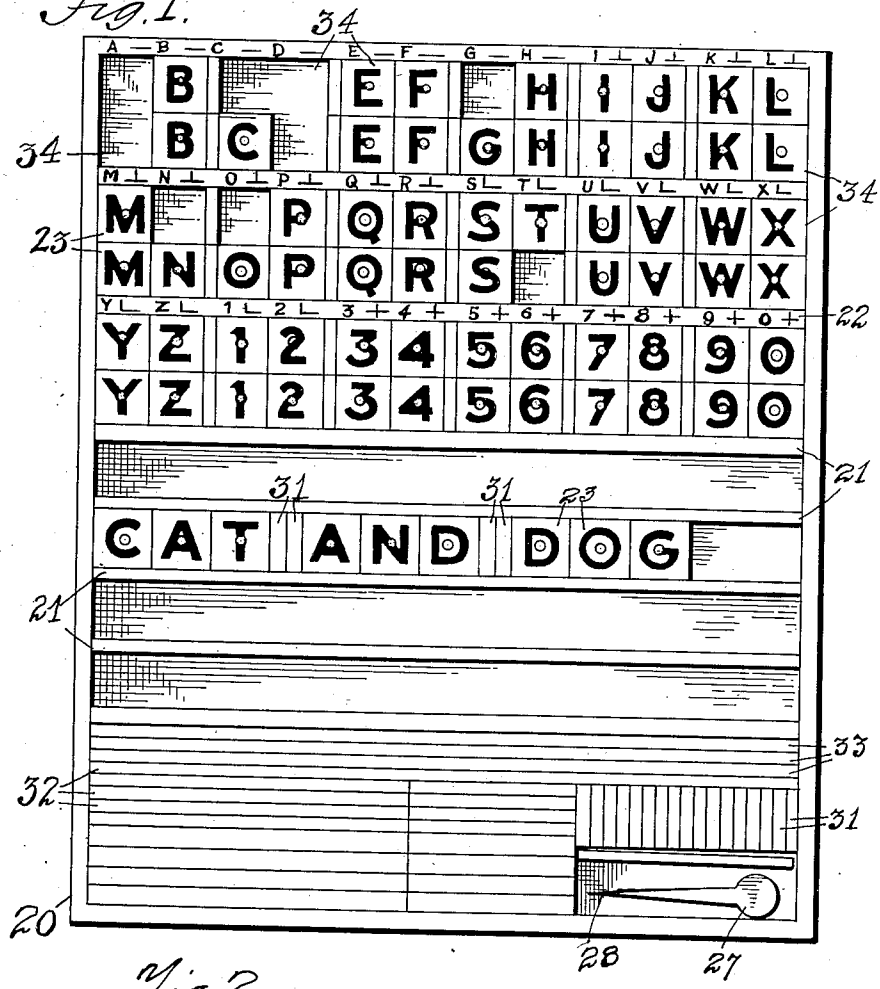


Fig. 2.

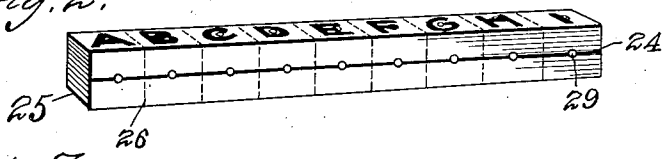
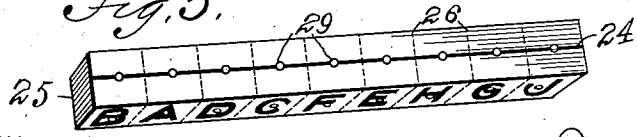


Fig. 3.



Witness

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2 SHEETS—SHEET 2.

Fig. 4.

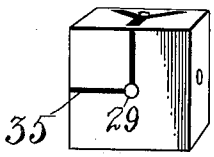


Fig. 5.

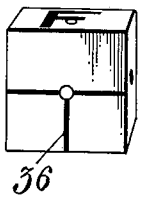


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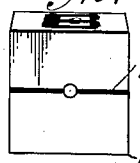


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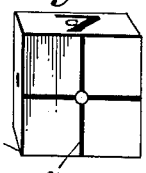


Fig. 8.

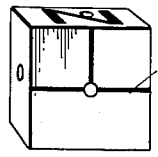


Fig. 9.

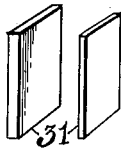


Fig. 10.

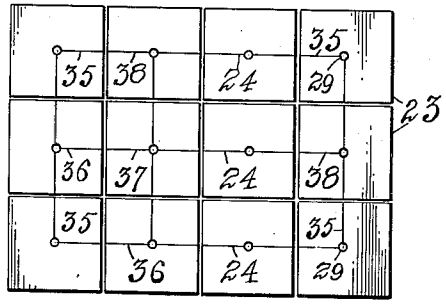


Fig. 11.

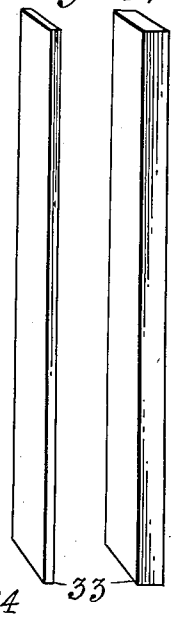


Fig. 14.

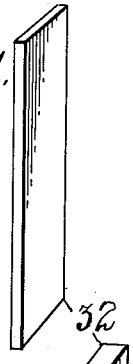


Fig. 15.



Fig. 12.

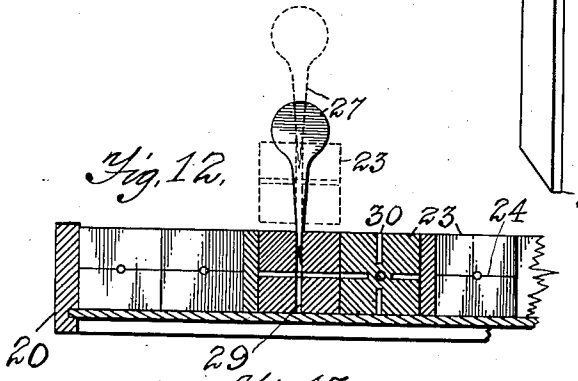
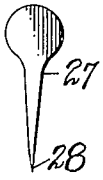


Fig. 13.



Witness

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UNITED STATES PATENT OFFICE.

EVERETT H. KETCHUM, OF JAMESTOWN, NEW YORK.

EDUCATIONAL BLOCKS.

1,354,910. Specification of Letters Patent. Patented Oct. 5, 1920.

Aplication filed January 2, 1920. Serial No. 348,889.

To all whom it may concern:

Be it known that I, EVERETT H. KETCHUM, a citizen of the United States, residing at the city of Jamestown, in the county of Chautauqua and State of New York, have invented certain new and useful Improvements in Educational Blocks, of which the following, taken in connection with the accompanying drawings, is a specification.

The invention relates to alphabet and building blocks for children; and the object of the improvement is to provide blocks so constructed as to have many of the principles used in printing type to lead the child in an educational way to understand spelling and type setting, as well as constructing figures of different conformations, and toward this end so constructing the blocks and the case therefor that they resemble printing type in their arrangement in said case, providing the alphabet and figure conformation upon the edge of the case, also providing compartments in the case or the cover therefor so that said compartments may be used as a setting stick for setting the type blocks, provision being made in the blocks for the insertion of a tool to lift the block from its compartment in the block case and place it as desired; and the invention consists in the novel features and combinations hereinafter set forth and claimed.

In the drawings, Figure 1 is a plan view of the preferred form of the case for the type or type blocks with the cover removed showing the setting compartments and the alphabet and figure conformations on the edge of the division partitions, the spacing and setting up furniture being shown in the lower division of the case, with the setting up tool in its compartment. Figs. 2 and 3 show perspective views of the upper and under sides of a bar with the letters printed thereon and the divisions printed ready for cutting the same into blocks, showing the quick and economical manner in which my alphabet and building blocks may be manufactured. Figs. 4, 5, 6, 7 and 8 show perspective views of blocks with different letters and numerals thereon, and particularly showing the hole therein and the different line conformations for setting up straight line squares, as for windows and doors or other designs, also showing the single straight line across a side of all the blocks which performs the double office of serving as a straight line when it is desired to set up the same, and also to show the front of the block, the same as the nicks or crosswise grooves in the front side of a piece of type so that said block can be quickly and correctly placed in the block case. Fig. 9 shows different thicknesses of the shortest length of spacing furniture the length of a block. Fig. 10 is a plan view of the blocks set up to form a rectangular formation as for a window sash or similar design. Fig. 11 is a perspective view of different thicknesses of the longest furniture. Fig. 12 is a sectional view of a series of divisions of the type block casing and blocks, showing two of the blocks in diametral section and the holes therein for the insertion of the setting up tool to withdraw the block from the case and place it in the setting compartment or elsewhere as desired. Fig. 13 is an elevation of the preferred form of setting up tool for the blocks. Figs. 14 and 15 show different thicknesses of the medium length furniture for setting up the type blocks.

Like characters of reference refer to corresponding parts in the several views.

The numeral 20 designates the casing or box which has the crosswise divisions 21 and 22 to form partitions dividing the case into compartments or divisions for the reception of the different type blocks 23, the partitions 22 having the letters and figure conformations stamped on the upper edge thereof so that a place or division is provided for each letter and the figure conformation thereon.

All of the blocks 23 have a single line 24 across their front side, which line is always set toward the type-block setter, the same as the nicks in a piece of type. This always places the letter on the type block 23 in the correct position for spelling when placed in a setting compartment or in relation to other type blocks.

In order to manufacture the type block 23 economically, a rectangular bar of wood 25 is provided and printed with the letters on the upper and under sides and the line 24 on the front lateral side and the other line conformations preferably on the other lateral side, and a division line 26 is printed thereon so as to make the severing of the blocks on the lines 26 accurate and the last step in the completed block.

It is apparent that the type blocks 23 fitting closely in the different compartments

will be difficult to lift from said compartments; accordingly a pointed tool 27 is provided, and a hole 29 which preferably extends entirely through the block 23 and preferably at right angles in all directions so as to quickly and easily pick up the block from any side by inserting the point 28 of the tool 27 into the small hole 29. Said hole may only extend part way through the block 23 as shown at 30 in one of the blocks 23 in Fig. 12 and attain my purpose.

In order to set up the type block to spell words as shown in Fig. 1, spacing furniture 31 is necessary between the different words; and also to set up complicated forms as with type, longer furniture of different thicknesses is also necessary as shown at 32 and 33.

In order also to provide as large a number of letters as possible on the upper and under sides of the type blocks, the blocks in each division 34 in which two letters are shown in each division arranged with one letter on one side and the second letter on the other side printed as shown in Figs. 2 and 3; that is, in the division 34 the letters E and F are placed, hence on the under sides the letters would be arranged F and E, thereby placing the second letter of each compartment on the same block with the first letter, and the line configurations 35, 36, 37 and 38 on the lateral sides of the different blocks preferably arranged about as shown on the edge of the divisional partitions 22 and the top edge of the box 20. These different line configurations permit the formation of different figures, as shown in Fig. 10 or in any rectangular arrangement of said lines which a child may desire, thereby giving the blocks an educational value as to form, as well as teaching letters, words, the formation of sentences and numerals.

It is apparent that the number of type blocks 23 may be multiplied to any desired extent, as for example, the box may be deeper and there may be more than one layer of blocks, or the divisions 34 may be enlarged to any desired extent. As shown in Fig. 1, the compartments 34 each contain four blocks. A portion of the spaces are empty, showing the withdrawal of the blocks to form the words "cat and dog" in the setting up slots or compartments, which words are spaced apart by means of the spacing furniture 31.

The spacing furniture 31, 32 and 33 is preferably made the same size as the blocks, or a multiple of said size as to length, and is also in thickness a fractional portion of said block so that said furniture may be built up to space with said blocks or any portion of the same. This is the same principle which is applied in type in which the pica measurement is used and all the furniture for type arranged to work with the same except that my type block furniture is exactly the same size and depth as the block 23, making the top surface of the completed form when set up perfectly smooth so as to give a pleasing appearance to the face of the set up form or composition.

This principle of the same size or multiple or equal fractional portion of the size of the blocks for the furniture aids greatly in the use of the blocks and furniture for building block purposes, the parts measuring up perfectly with one another in the formation of buildings, the line formations on the blocks permitting the representation of doors and windows, as well as decorative effects around the eaves or gables.

It is apparent that the manner in which the blocks are made in order to manufacture them economically as hereinbefore described gives a blank side between each of the blocks 23 as severed from the bar 25. These sides are purposely left blank so that they may be used for the blank spaces in walls in building, or in use as type or type furniture so that highly pleasing and instructive effects may be attained by the use of the blocks for buildings or designs.

The tool 27 preferably has the sharp point 28 so that it may be inserted into any of the blocks or furniture in order to withdraw the same, preferably being so shaped and fitted as to size that it wedgingly fits into the holes 29 and 30, thereby easily withdrawing the block and carrying the same to place as desired.

The blocks and furniture for the blocks, as well as the divisions between the blocks in the set-up composition are all preferably of the same depth or width so that when set up together, the face of the furniture and blocks presents a pleasing level surface in which all lines are continuous for the different line formations, and the words or letters may be read on the face of the set-up blocks the same as on a printed page.

I claim as new:

1. Type blocks having letter conformations on their upper and under sides, line conformations on the rear lateral sides, and a central straight line across the front lateral side thereof to distinguishingly mark said front side.

2. In a case having suitable divisions therein, the combination of type blocks, letters on the upper and under faces of said type blocks, line formations on the rear lateral sides thereof, a single straight line on the front lateral side, and spacing furniture for said blocks contained in said case.

3. In alphabet and building blocks, a case for said blocks having divisions of the same depth as said blocks, line formations on said blocks to form continuous lines with one another, and spacing furniture for said blocks

of the same depth as said blocks and divisions to give a level surface to said blocks and furniture when in the set-up position with one another in said case.

4. As a new article of manufacture, an alphabet and building block composed of a body having a letter on one face and having a substantially central opening in a second face, a line intersecting said opening, and a second line extending from the opening to an adjacent edge of the body.

5. As a new article of manufacture, an alphabet and building block composed of a body having a letter on one face and having a substantially central opening in a second face, and right angularly related lines extending from the opening to the adjacent edges of the body.

6. In alphabet and building blocks, a case, blocks having apertures therein seated on the case with the apertures arranged to face upwardly and vertically, and a cone-pointed instrument formed to wedgingly engage in said apertures.

7. In alphabet and building blocks, a series of blocks, a case for the blocks having partitions of the same depth as said blocks, and spacing furniture for said blocks of the same depth as said blocks and partitions so as to provide a level surface when the blocks and furniture are in set-up position in the case.

In testimony whereof I have affixed my signature in the presence of two witnesses.

EVERETT H. KETCHUM.

Witnesses:

C. V. SWANSON,

L. T. BALDWIN.