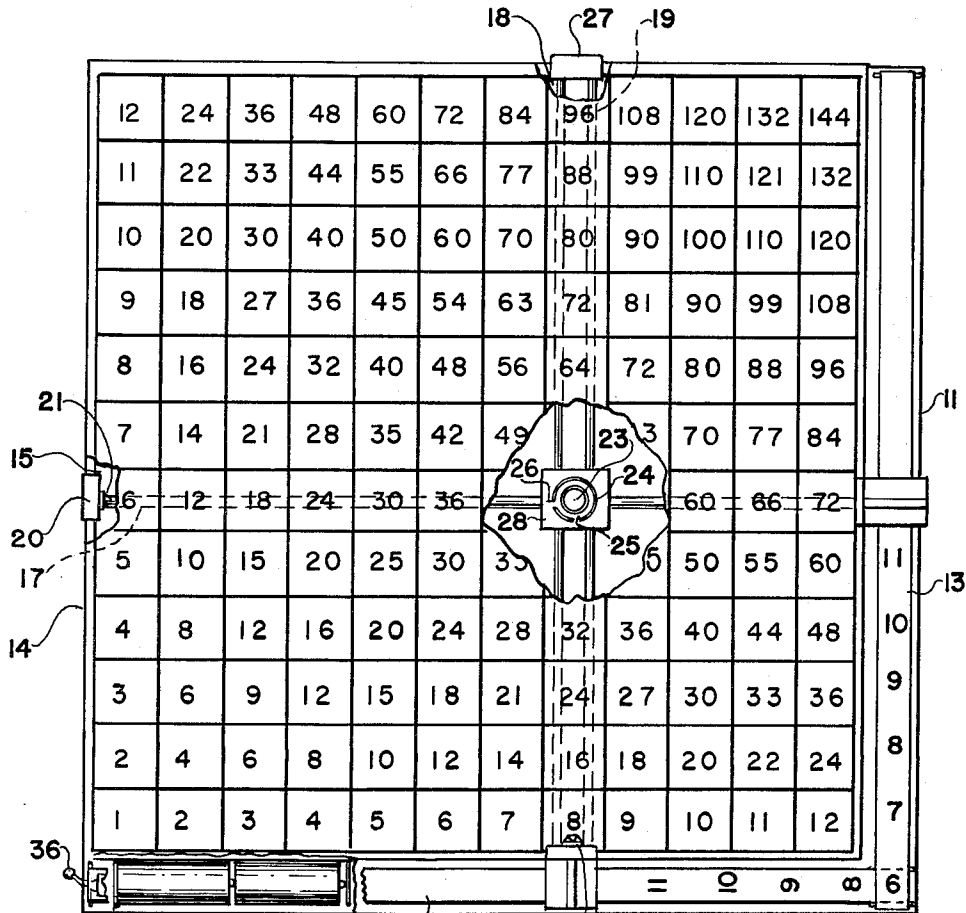| 12	24	36	48	60	72	84	96	108	120	132	144
11	22	33	44	55	66	77	88	99	110	121	132
10	20	30	40	50	60	70	80	90	100	110	120
9	18	27	36	45	54	63	72	81	90	99	108
8	16	24	32	40	48	56	64	72	80	88	96
7	14	21	28	35	42	49	23	70	77	84
6	12	18	24	30	36			60	66	72
5	10	15	20	25	30	35		50	55	60
4	8	12	16	20	24	28	32	36	40	44	48
3	6	9	12	15	18	21	24	27	30	33	36
2	4	6	8	10	12	14	16	18	20	22	24
1	2	3	4	5	6	7	8	9	10	11	12

FIG.1
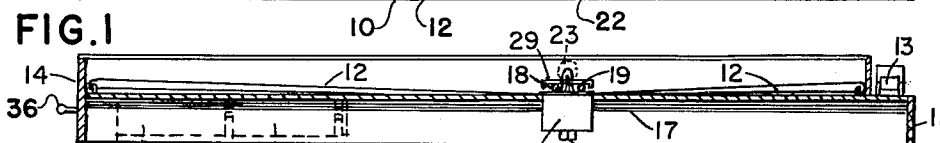
FIG.2
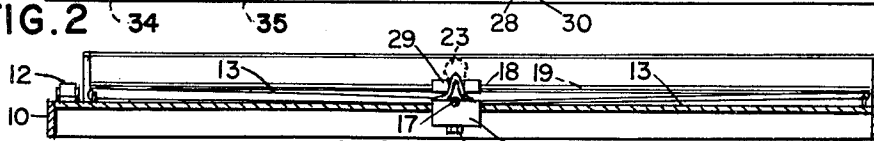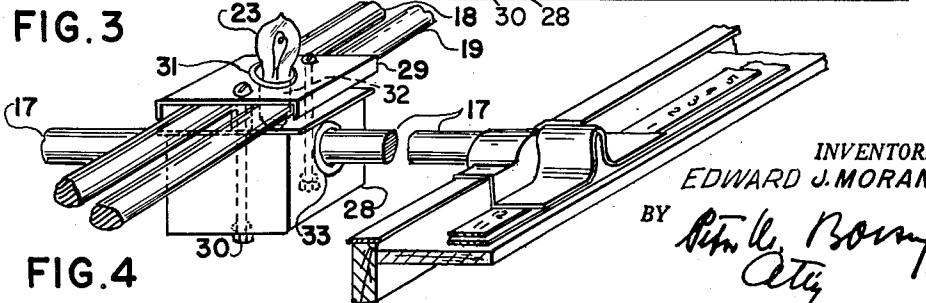
FIG.3

FIG.4

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3,009,262
EDUCATIONAL TOY FOR TEACHING
MULTIPLICATION TABLE
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Filed June 6, 1960, Ser. No. 34,221
2 Claims. (Cl. 35—9)

This invention relates to an educational toy, showing a multiplication table useful in teaching multiplication to children, and the use of said table in connection therewith.

The invention may be made of any suitable material, such as for instance plastics.

With the above and other objects in view, this invention consists of the novel features of construction, combination and arrangement of parts, hereinafter fully described, claimed and illustrated in the accompanying drawings, forming part of this specification, and in which similar characters of reference indicate corresponding parts in all views, and in which:

FIGURE 1 is a top plan view of a multiplication table consisting of a blank of suitable, preferably transparent, material with numbers thereon, a square frame surrounding said table with parts broken off.

FIGURE 2 is a view of the lower end of FIGURE 1.

FIGURE 3 is a view taken from the right side.

FIGURE 4 is a detail perspective view.

Referring more particularly to the drawing, numerals from 1 to 12 are indicated along the left side of the frame 14 of the multiplication table.

Side pieces 10 and 11 are secured to the respective sides of the frame 14; and endless tapes 12 and 13, having numerals from 1 to 12 thereon, are arranged respectively on said side pieces, showing only in part the numbers thereon, as the rest are concealed by the endless tapes 12 and 13.

The numbers are the product of added numbers from either the side or the bottom of the table, commencing with the number closest to either the side or bottom.

Taking, for instance, from the number 4 on the side, the numbers across the table horizontally would be: 8, 12, 16, 20, 24, 28, 32, 36, 40, 44 and 48; and taking, for instance, from the number 6 to the bottom, the numerals across the table vertically would be: 12, 18, 24, 30, 36, 42, 48, 54, 60, 66 and 72.

A frame 14 surrounds the table which is of plastic or transparent material, said frame is shown broken off at 15 in FIGURE 1; the said frame is formed with open spaces 16 on all sides, as shown, for instance in FIGURE 3, to permit slidable rods indicated at 17 and 18 and 19 to travel therein, as said rods are manipulated by lugs 20 and 27 respectively; the lug 27 attached to the rods 18, 19 is depending however from the top of the frame.

At one end of the rods 17, 18 and 19 are mounted small diamond-like pieces 21 and 22 to reflect light to be diffused from a light bulb 23, which is surrounded by a shield 24 that has openings 25 and 26 therein at an angle corresponding to the positions of said diamond-like pieces

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21 and 22 in order, as stated, to reflect the light from said bulb 23.

When it is desired to multiply, for instance 6 by 8, it is only necessary to move the rod 17 covering the numeral 6 at the left side toward the right until said rod meets the rods 18, 19 which at the same time are moved vertically upward along the numbers starting from 8 at the bottom of the table, whereby a block 28, in which said rods 17 and 18 and 19 are mounted and which have mounted thereon the light bulb 23, will cover, or indicate the desired result, or 48.

It may be noted that in moving the bars 17, 18 and 19 along the lines commencing with 6 and 8, whereby to obtain as a result the number 48, the tapes 12 and 13, to which said bars are respectively attached in any convenient manner, will simultaneously indicate the numerals 6 and 8 at the ends where said tapes meet.

The said block 28 is formed with openings therein for the mounting of the sliding rods 17 and 18 and 19, as shown in FIGURE 4, a plate 29 is secured to the block by screws 30, while a small disk 31 with a circular opening therein is crimped unto the neck 32 or stem of the light bulb 23 and is extending below the plate 29.

The said neck 32 of the bulb extends downwardly touching a metal tubing 33 surrounding the rod 17 in order to make an electrical connection with said tubing.

Batteries 34 and 35 are arranged below the frame 14, and electric current is provided to light the bulb by means of the frame and said rods, which are provided with usually conducting material. The current is controlled by the switch 36.

I claim as my invention:

1. A multiplication device comprising, in combination, a table structure provided with numerals thereon, a frame formed with longitudinal slots therein and surrounding said table, three rods mounted in connection with said frame, a block member adapted to slidably receive and dispose said rods, a shield surrounding a light bulb and being formed with cut-out portions therein at right angles to each other, a diamond-like piece of material arranged at the outer ends of said rods, said light bulb and shield being mounted on said block, whereby the light from said bulb through the cut-out portions will strike said diamond-like pieces.

2. In a device, as claimed in claim 1, and endless tapes provided with numbers from 1 to 12 and being arranged on two sides of the table, rods connected to said tapes, whereby, when manipulating said rods, the tapes show the same multiplier and multiplicand.

References Cited in the file of this patent
UNITED STATES PATENTS

2,656,618	Pescatori		Oct. 27, 1953

FOREIGN PATENTS

498,336	Italy		Sept. 29, 1954
517,487	Italy		Feb. 28, 1955