

No. 610,046.

Patented Aug. 30, 1898.

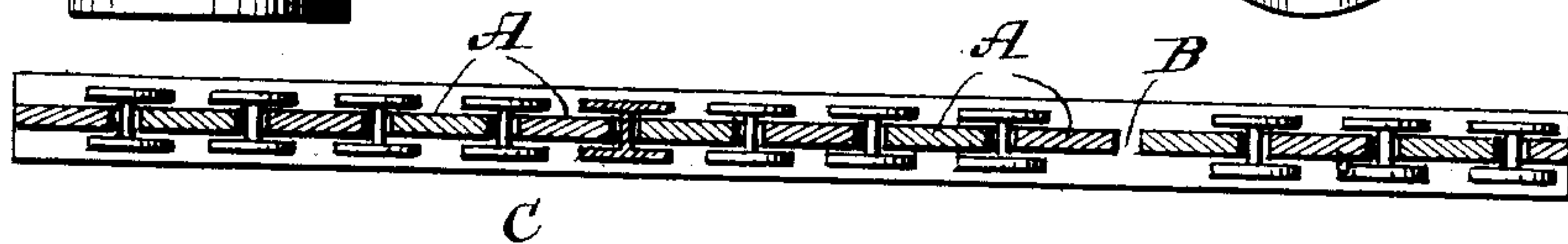
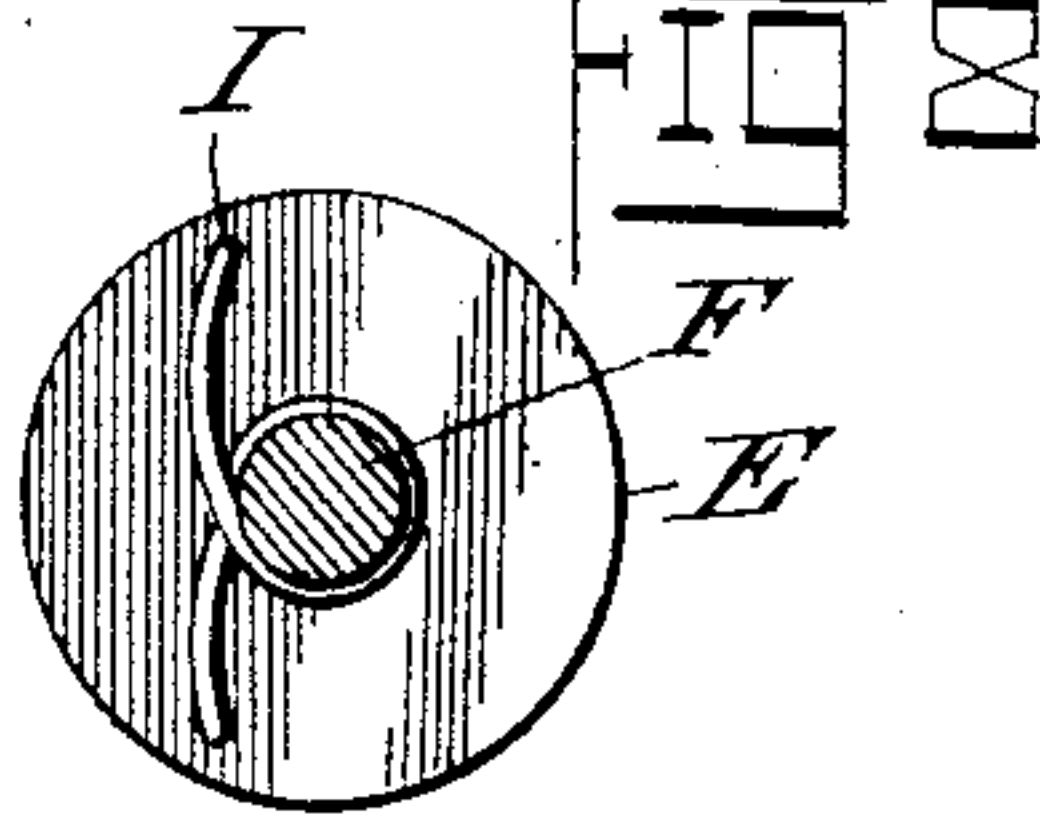
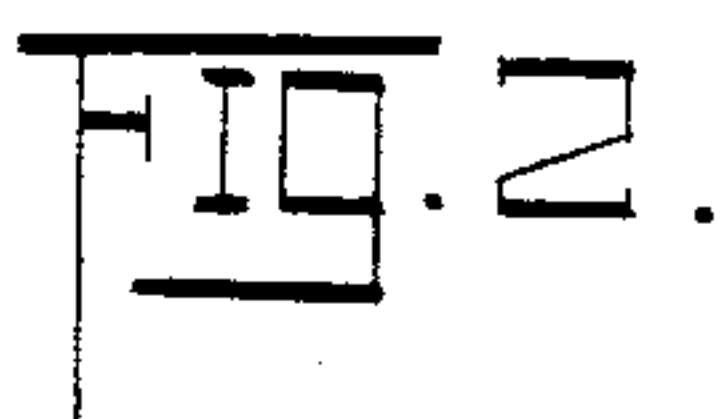
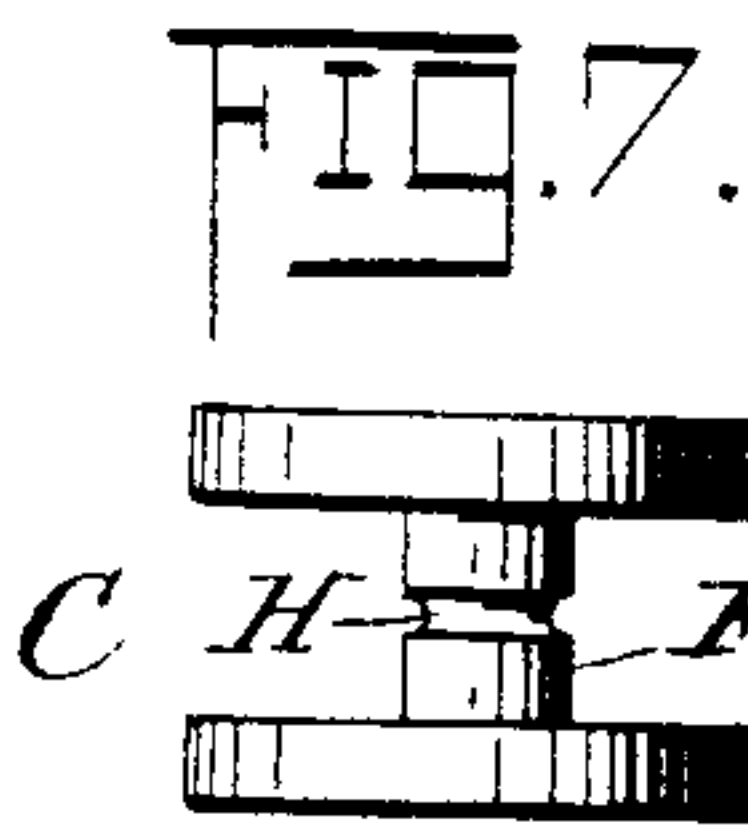
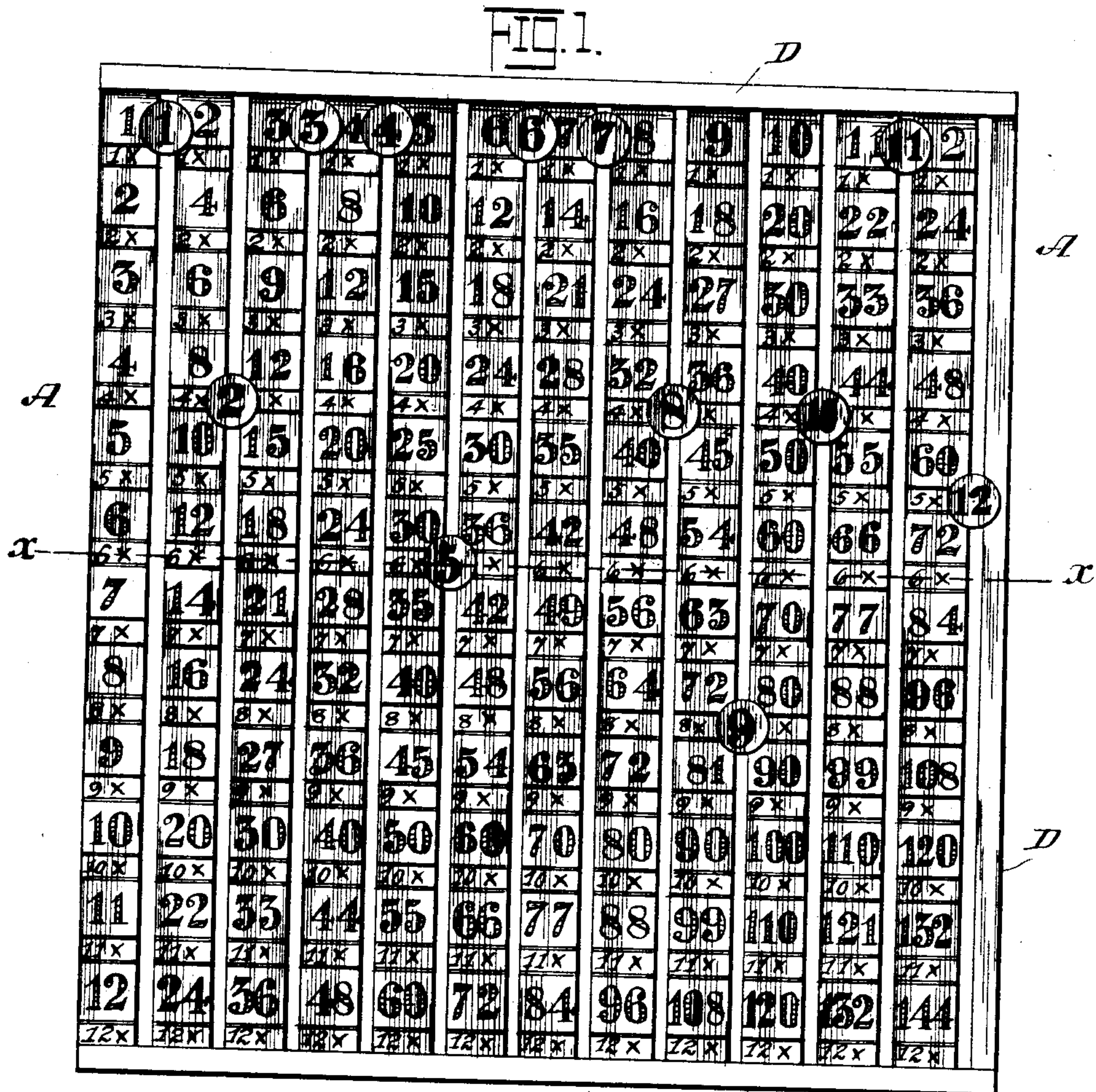
D. GOLDEN.

GAME BOARD AND EDUCATIONAL APPLIANCE.

(Application filed Feb. 19, 1898.)

(No Model.)

2 Sheets—Sheet I.



Witnesses:

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2 Sheets—Sheet 2.

FIG. 3.

13	14	15	16	17	18	19	20	21	22	23	24
26	28	30	32	34	36	38	40	42	44	46	48
50	52	54	56	58	60	62	64	66	68	70	72
76	78	80	82	84	86	88	90	92	94	96	98
102	104	106	108	110	112	114	116	118	120	122	124
128	130	132	134	136	138	140	142	144	146	148	150
154	156	158	160	162	164	166	168	170	172	174	176
180	182	184	186	188	190	192	194	196	198	200	202
206	208	210	212	214	216	218	220	222	224	226	228
232	234	236	238	240	242	244	246	248	250	252	254
258	260	262	264	266	268	270	272	274	276	278	280

FIG. 4.

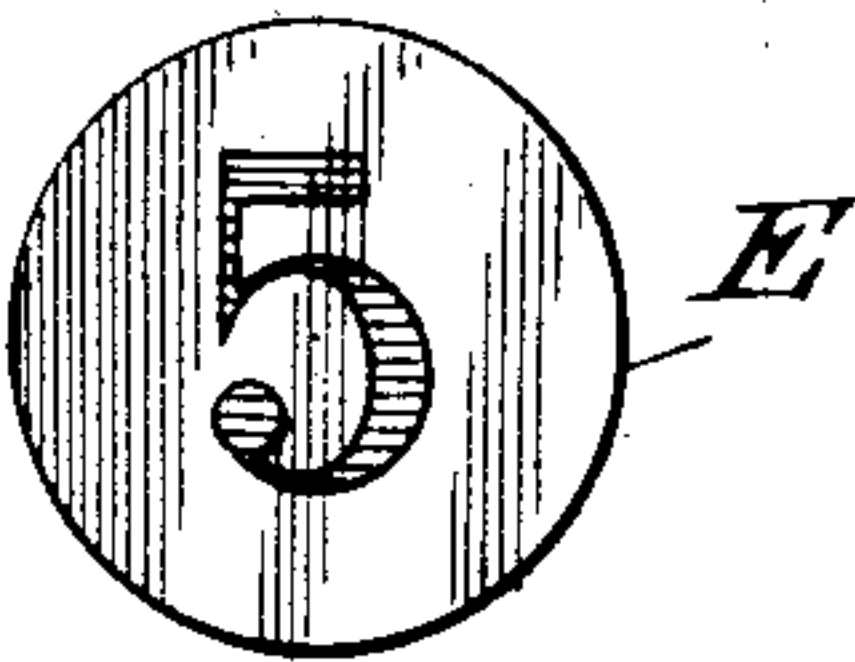


FIG. 5.

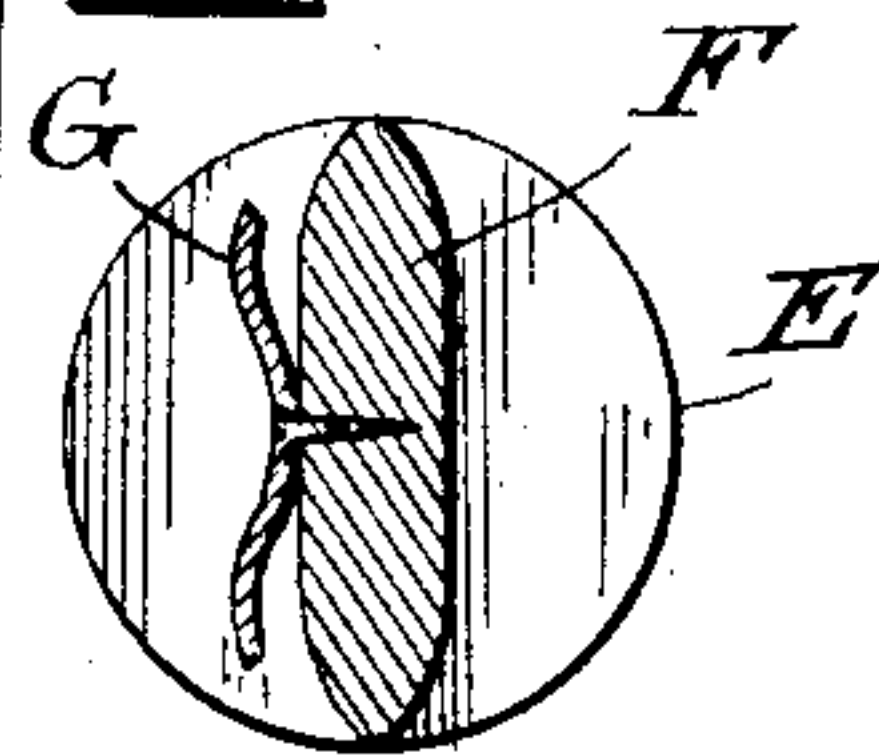
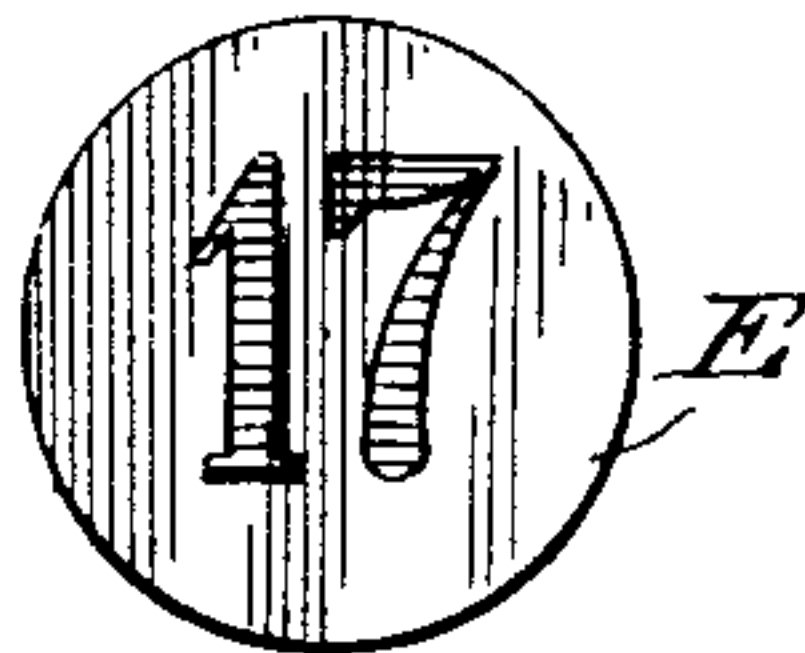


FIG. 6.



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UNITED STATES PATENT OFFICE.

DOMINIC GOLDEN, OF WASHINGTON, DISTRICT OF COLUMBIA.

GAME-BOARD AND EDUCATIONAL APPLIANCE.

SPECIFICATION forming part of Letters Patent No. 610,046, dated August 30, 1898.

Application filed February 19, 1898. Serial No. 670,954. (No model.)

To all whom it may concern:

Be it known that I, DOMINIC GOLDEN, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Game-Boards and Educational Appliances; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in game-boards and educational appliances of the character employed in the kindergarten method of instruction; and the object of my invention is to provide a simple, cheap, and effective chart for instructing children in the multiplication-table, as well as to enable accountants and others to make instantaneous calculations.

The detailed objects and advantages of the invention will appear in the course of the subjoined description.

With the accomplishment of these ends in view the invention consists in certain novel details of construction, combination, and arrangement of parts, as will be hereinafter more fully described, and specifically set forth in the appended claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a plan view of the obverse side of an instruction-chart embodying my invention. Fig. 2 is a cross-section of the same on line *xx* of Fig. 1. Fig. 3 is a plan view of the reverse side of the chart. Figs. 4, 5, and 6 are detail views of the push blocks or buttons. Figs. 7 and 8 are also detail views illustrating a modified form of push-button.

Referring now more particularly to the accompanying drawings, A designates a series of parallel slats comprising the chart, spaced to form guide passages or slots B between them, in which the push-buttons C slide, and connected by top, bottom, and side bars D. This construction may be modified without departing from the invention by making the chart of a board having slots extending nearly to the ends thereof, whereby a series of integral slots would be provided, as will be readily understood. The slats are consecutively numbered from "1" to "12" at the head of

the chart on the obverse side and from "13" to "24" on the reverse side, and each slat has imprinted thereon a vertical column of numerals, each column consisting of twelve numerals. The numerals comprising the vertical columns, beginning at the head of the chart, are each increased by the amount of the numeral heading the column—as, for example, the numerals in the first column are "1," "2," "3," &c., in the second "2," "4," "6," &c., in the third "3," "6," "9," &c., and so on through all the twelve columns on each side of the chart. A second vertical column of numerals is imprinted upon each slat, each column consisting of twelve numerals, beginning at the head of the chart with the numeral "1" and arranged in progressive order, said second column of numerals alternating with the first-mentioned vertical column and constituting the multiplicands in the multiplications to be performed, while said first-mentioned vertical series of numerals designate the products thereof, and to the right of each multiplicand the multiplication sign is imprinted. The multipliers are carried by said push buttons or blocks C, which consist of disks E, positioned upon the respective sides of the chart and connected by shanks F, extending through slots B, between the slats. These disks have the proper multipliers imprinted thereon, so that when the multiplicands upon the slats at the left thereof are multiplied thereby the products will be indicated by the numerals just above the multiplicands. Thus the disks on the obverse side of the chart, beginning at the left thereof, are consecutively numbered from "1" to "12" and on the reverse side from "13" to "24," and by sliding these push-buttons up or down until the multiplier carried thereby registers with the desired multiplicand the product of the multiplication may be instantly ascertained by reading the numeral just above said multiplicand.

For retaining the push-buttons at any desired point upon the chart I secure a spring G to the flat shank of each button, which spring presses against the edge of the slat, and thus holds the button and prevents falling thereof when released by the hand of the operator.

In the push-button illustrated in Figs. 7 and

and 8 a somewhat-modified form is disclosed, the shank being rounded and formed with a circumferential groove H to receive a piece of spring-wire I, which is positioned therein with its ends bent in reverse directions and adapted to engage the edge of the slat and serve the same function as spring G.

In operation the chart is held in vertical position, and should it be desired to teach the multiplication-table the push-buttons are moved downwardly to register with each of the multiplicands on the several slats. Thus it will be seen that a chart is provided by means of which the multiplication-table can be readily taught, but which is not limited to this use, as the same may be supported upon the desk or attached to the wall and be used by accountants to make instantaneous calculations, as the product of any multiplicand from "1" to "12" multiplied by any multiplier from "1" to "24" may be instantly ascertained by moving the push-button containing the desired multiplier to register with the desired multiplicand and noting the numeral just above the multiplicand, which will be the product.

I do not desire to limit my invention to a chart of the capacity above set forth, as the same may be of such size as to comprise a greater number of slats than twelve, and consequently the number of multipliers increased as may be desired.

Having thus fully described my invention, what I claim as new and useful, and desire to secure by Letters Patent, is—

1. In an educational appliance, the combination with a chart having a way and a column of numerals representing multiplicands arranged adjacent thereto, of a disk movable in

said way and carrying a numeral representing the multiplier and adapted to register with the multiplicands, and a second column of numerals arranged adjacent to the multiplicands and indicating the products obtained by the multiplication, substantially as described.

2. In an educational appliance, the combination with a chart having a way formed therein and a column of numerals representing multiplicands arranged adjacent thereto, of a disk movable in said way and carrying a numeral representing the multiplier and adapted to register with the multiplicands, means for retaining said disk registering with the desired multiplicand, and a second column of numerals arranged adjacent to the multiplicands and indicating the products obtained by the multiplication, substantially as described.

3. In an educational appliance, the combination with a chart having a slot formed therein and a column of numerals arranged on each face thereof adjacent to said slot and representing multiplicands, of a push-button comprising a shank movable in said slot and carrying a disk upon each face of chart, said disks having numerals thereon representing multipliers and adapted to register with the multiplicands, and a second column of numerals on each face of the chart indicating the products of the multiplication, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

DOMINIC GOLDEN.

Witnesses:

JOSEPH F. MARX,

LESTER HOCHSTADTER.