

(No Model.)

J. GALLEGOS.

DEVICE FOR TEACHING ARITHMETICAL CALCULATION.

No. 502,184.

Patented July 25, 1893.

Fig. 1.

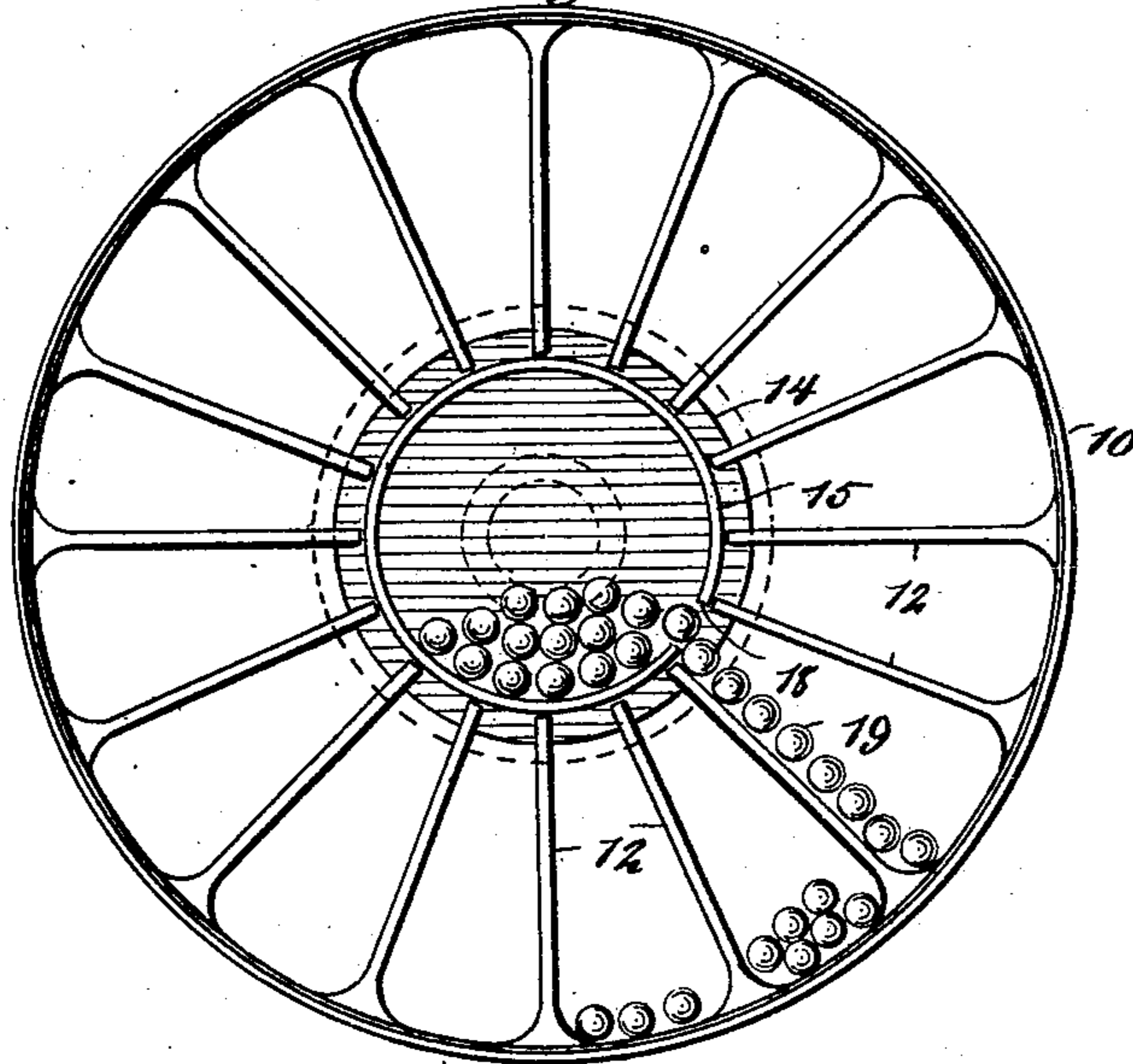


Fig. 2.

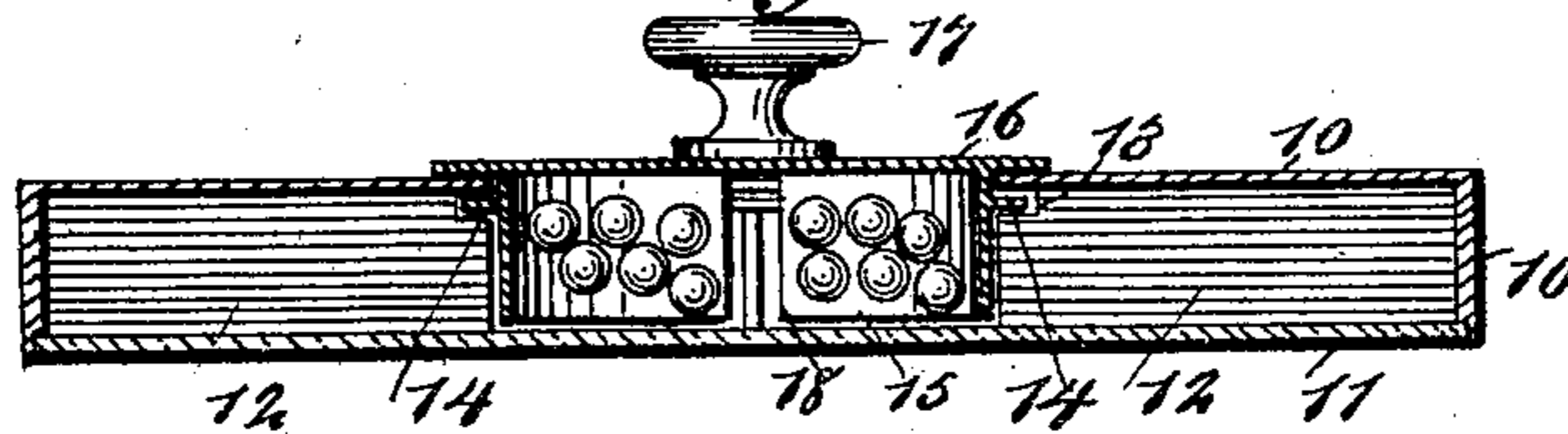
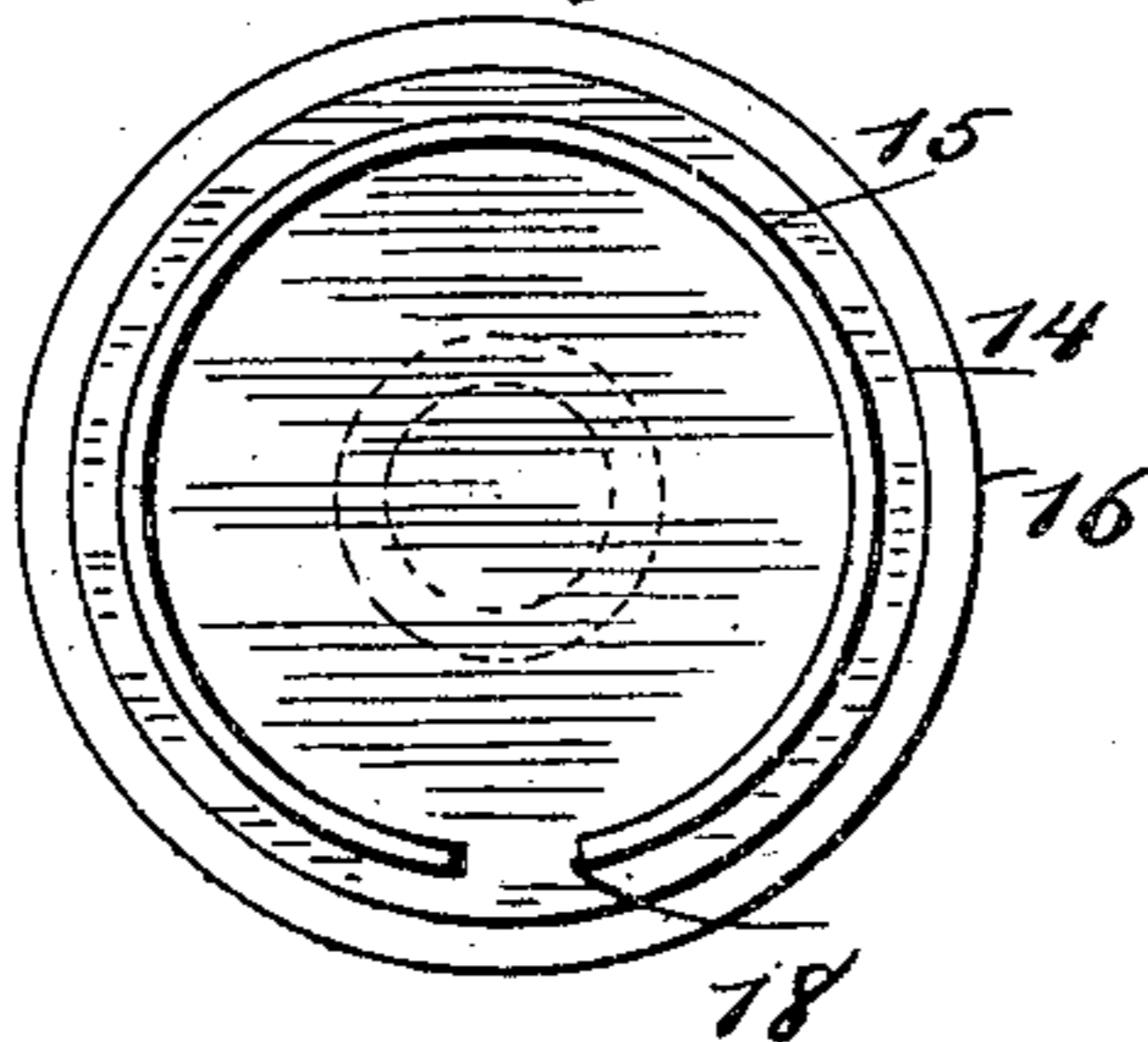


Fig. 3.



WITNESSES:

F. M. Arde
C. Sedgwick

INVENTOR

J. Gallegos
BY *Munn & Co*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOSÉ GALLEGOS, OF OCÓS, GUATEMALA.

DEVICE FOR TEACHING ARITHMETICAL CALCULATIONS.

SPECIFICATION forming part of Letters Patent No. 502,184, dated July 25, 1893.

Application filed February 3, 1893. Serial No. 460,853. (No model.)

To all whom it may concern:

Be it known that I, JOSÉ GALLEGOS, of Ocós, Guatemala, Central America, have invented a new and Improved Device for Teaching
5 Arithmetical Calculations, of which the following is a full, clear, and exact description.

My invention relates to improvements in that sort of educational appliances which are adapted for use in the kindergarten method
10 of instruction; and the object of my invention is to produce an attractive and interesting article which may be cheaply made; which will, to a certain extent, serve to amuse the pupil; and which is adapted to give object
15 lessons in a way to teach the pupil to perform simple arithmetical calculations such as to add, subtract, multiply, and divide.

To this end my invention consists in certain features of construction and combinations of
20 parts, as will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar figures of reference indicate
25 corresponding parts in all the views.

Figure 1 is a front elevation of the device embodying my invention. Fig. 2 is a central cross section of the same; and Fig. 3 is an inside elevation of the revoluble pocket carried
30 in the body of the apparatus.

The device is provided with a short cylindrical body 10 having a transparent glass front 11 which is entirely closed, and extending radially inward from the side walls of the
35 cylinder are ribs 12 which divide the cylinder into numerous compartments, these compartments being open at their inner ends, and the ribs do not extend to the center of the cylinder so that a recess is formed within the inner
40 ends of the ribs, which recess is adapted to receive the pocket which will be described below. The inner ends of the ribs are cut away slightly at their back corners, as shown at 13, so as to receive a flange 14 on the cylinder pocket 15, which is of the same depth
45 as the cylinder 10 and which fits nicely in the recess formed within the inner ends of the ribs 12. The flange 14, by engaging the back of the cylinder 10, prevents the accidental
50 displacement of the pocket.

The front end of the pocket 15 is open, as shown best in Fig. 2, and it has a closed back 16, the edges of which overlap the back of the cylinder 10, as shown also in Fig. 2, and this back is provided with a suitable knob or handle 17 by means of which the pocket may be
55 turned or revolved. In one side of the pocket is a slot 18 which extends the full depth of the pocket and which is adapted to permit the balls 19 to pass one by one through it. 60 These balls are adapted to be contained in the pocket and in the several compartments between the ribs 12, and any necessary or desired number may be used.

By placing the balls in the pocket 15, the
65 pocket may be turned so as to permit one or more balls to run through the slot 18 and into the several compartments between the ribs 12. In this way the pupil may learn to add as the balls may be distributed at discretion
70 and then added up. Multiplication may be taught in the same way. Subtraction being the inverse of addition may also be taught in substantially the same manner, and to teach the pupil division, equal numbers of the balls
75 are caused to be distributed in the several compartments. To teach counting it is only necessary to let the balls drop one by one through the slot.

It will be understood that the front side of
80 the device is presented to the pupil and he may look through the glass front and see the balls in the pocket and in the several compartments.

Having thus described my invention, I
85 claim as new and desire to secure by Letters Patent—

1. A device of the character described, comprising a case having a transparent front, and a plurality of radially arranged compartments
90 open at their inner ends, a revoluble pocket held to turn opposite the inner ends of the compartments and provided with an opening adapted to register with the compartments, and balls in the pocket and compartments
95 substantially as described.

2. A device of the character described, comprising a case having a transparent front, and a plurality of radially arranged compartments
100 with open inner ends, a removable revoluble

pocket held to turn in the center of the case and provided with a slot to register with the several compartments and balls in the pocket and compartments, substantially as described.

- 5 3. A device of the character described, comprising a cylinder having a transparent front, and a plurality of compartments arranged radially within the cylinder and provided with open inner ends, a revoluble cylindrical
10 pocket held to turn in the center of the main

cylinder and provided on its back side with a handle and on one side with a slot to register with the several compartments, and a plurality of balls held within the pocket and compartments, substantially as described.

JOSÉ GALLEGOS.

Witnesses:

VENANEIO RICARTE,
RAFAEL DE LEÓN.