

(No Model.)

J. TRUMBULL.
PUZZLE.

No. 438,661.

Patented Oct. 21, 1890.

Fig. 1.

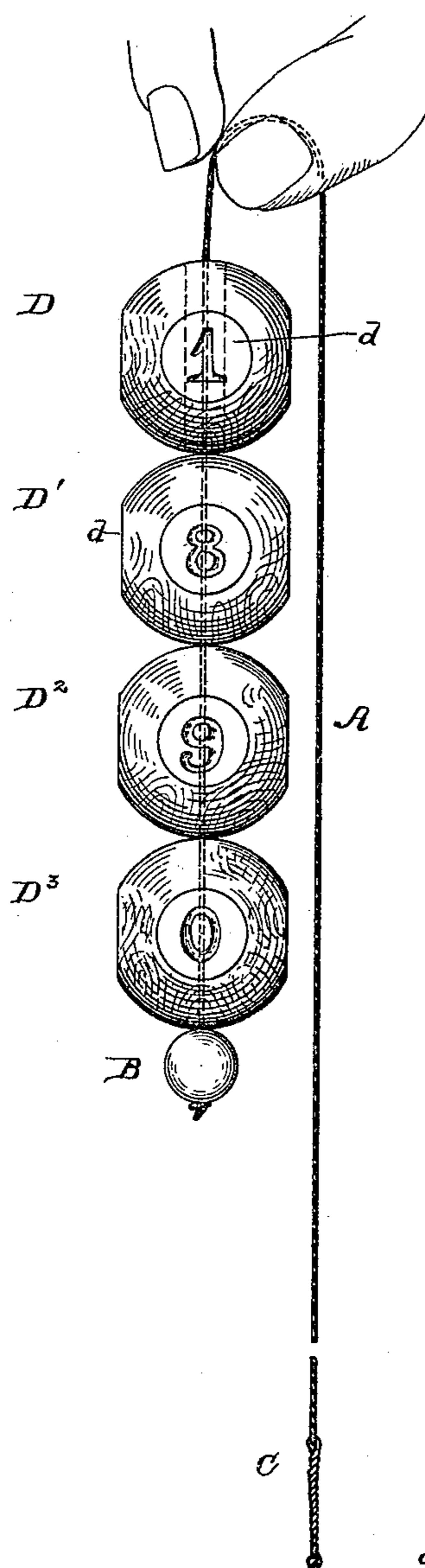


Fig. 2.

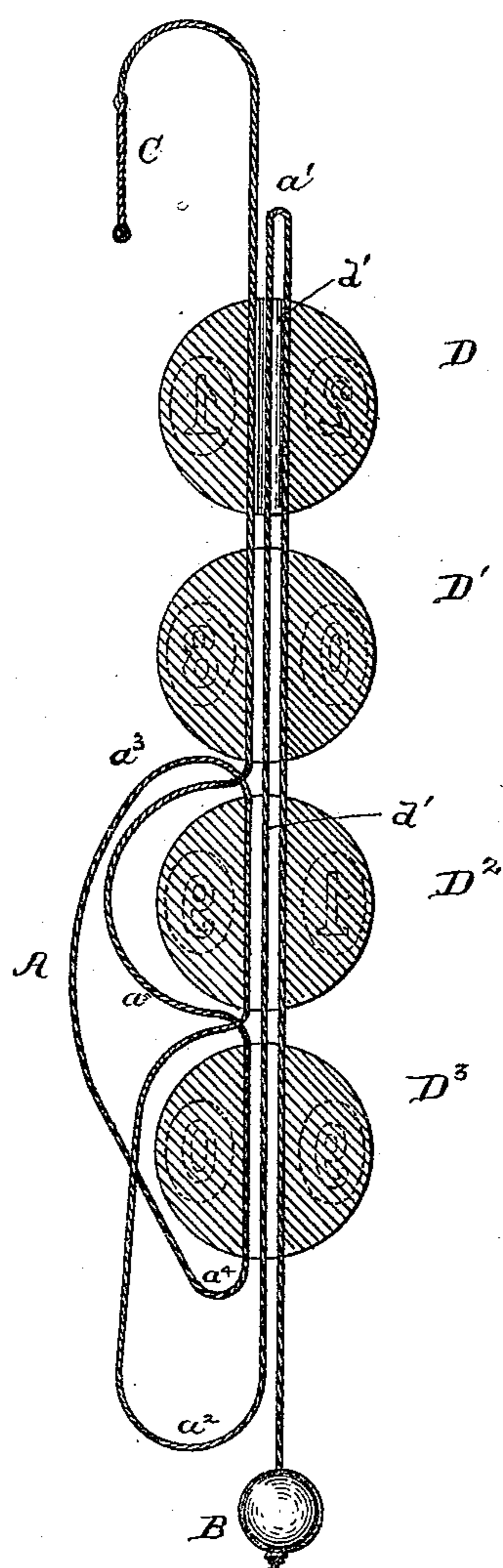
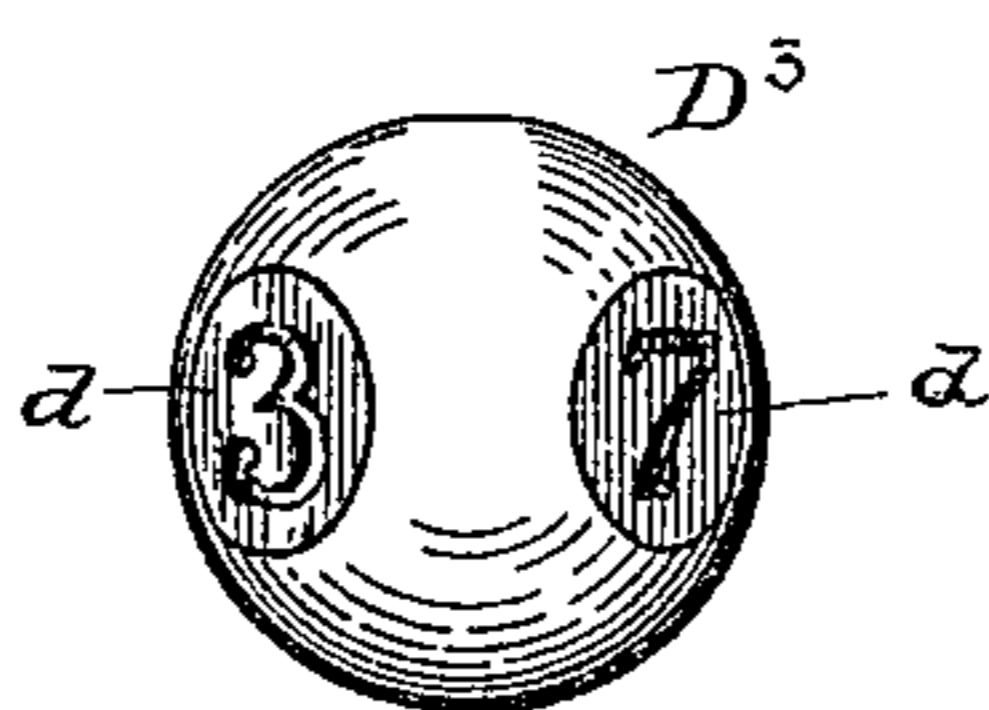


Fig. 3.



WITNESSES

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JOHN TRUMBULL, OF VALPARAISO, CHILI.

PUZZLE.

SPECIFICATION forming part of Letters Patent No. 438,661, dated October 21, 1890.

Application filed June 26, 1890. Serial No. 356,886. (No model.)

To all whom it may concern:

Be it known that I, JOHN TRUMBULL, a citizen of Chili, residing at Valparaiso, Chili, have invented certain new and useful Improvements in Puzzles; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to puzzles; and it consists in a certain apparatus and in the method of manipulating it to attain a given result, as hereinafter set forth and claimed.

The apparatus comprises a series of objects threaded loosely on a cord and bearing numbers, letters, or other distinguishing devices or characteristics. The end to be accomplished, which constitutes the puzzle to be solved, is to transpose the order in which the objects follow one another without removing them or any of them from the cord.

In the drawings, Figure 1 is an elevation of one form of my apparatus. Fig. 2 is a sectional view showing the method of solving the puzzle, and Fig. 3 is a view of one of the objects detached.

At one end of a cord A, of any suitable length, size, and material, is made a stop, consisting of a ball or button B, a knot in the cord, or any other suitable equivalent therefor. The other end of the cord is preferably provided with a stiff tip C—such as a bit of wire—though this is not essential. Strung upon the cord is a series of objects D D' D² D³, any number of which may be used. The objects may be of any suitable size, shape, and material. They are provided with some distinguishing characteristic, so as to be readily selected. Thus they may simply differ in shape—such as a globe, a cube, a cylinder, a cone—or they may be of different colors and of the same or different shapes; or, as shown in the drawings, they may be all of the same shape and bear distinctive figures, letters, or other devices, which, in the case of globular objects, may be placed upon flattened surfaces *d*, if desired. In each instance the objects are perforated by a preferably straight hole

d' of sufficient size to permit three or four parts of the cord A to be easily passed through it at the same time.

I prefer to use four objects and to place upon them figures to form the dates of the years. Thus in Fig. 1 the objects are so arranged that the figures, read from the top downward, make the date 1890. The other faces *d* of the objects are provided with other figures, as indicated.

Suppose it is desired to transpose the objects so as to have the figures read 1891. To do this without removing the objects from the cord constitutes the amusing and puzzling feature of my invention. It is accomplished by doubling the cord at *a'* and passing the end back through all the objects, doubling again at *a*², and passing it through the object containing the last figure 1 of the desired date—say D²—doubling again at *a*³ and *a*⁴ and passing it through the object D³, containing the third figure 9 of the date, then carrying the part *a*⁵ around the object D² and passing it through D' and D, which bear the second and first figures, respectively, of the date 1891. Upon pulling apart the two ends of the cord it will straighten out, and the objects will be found to be transposed into the desired order.

By observing the method specified above any desired arrangement can be effected, first putting the tip C back through all the objects and then threading it through them in the reverse order of that in which it is desired they shall come, taking care to pass the cord from below upward.

It will be seen that a judicious selection of figures will enable one to make a large number of dates. The four objects will readily accommodate four figures each, or sixteen in all. This provides for the ten digits and duplicates of six of them. By the laws of permutation such a series of figures can be rearranged in differing groups of four some seven hundred and twenty-nine times. By increasing the number of objects or the number of figures on them an almost endless variety of changes can be made.

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

1. A puzzle consisting of a series of distinctively-characterized objects each having a perforation and a cord upon which said objects are strung, one end of said cord being
5 provided with a stop and the other having a rigid portion adapted to be passed through said perforations, whereby by a certain manipulation of the cord the relative order of the objects can be altered without removing
10 them from the cord, substantially as described.

2. The combination, with the cord A, hav-

ng the button B at one end and a tip C at the other end, of the series of objects D D' D² D³, having perforations *d'*, through which 15 said cord is passed, and of sufficient size to permit it to be easily threaded through them more than once, substantially as described.

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

JOHN TRUMBULL.

Witnesses:

JAMES MCLEAN,
P. SML. KELLAR.