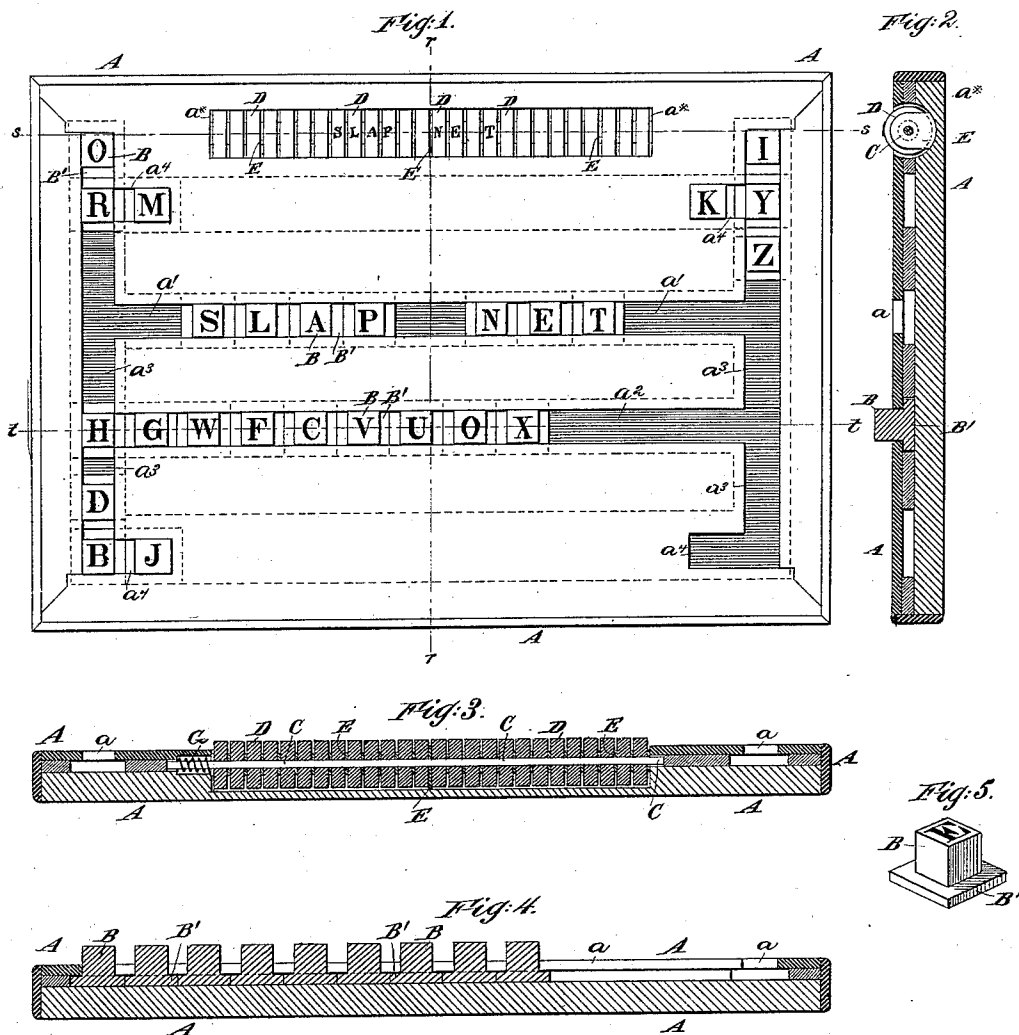


(No Model.)

B. S. WHEELER.
GAME.

No. 296,900.

Patented Apr. 15, 1884.



WITNESSES—
Charles R. Searle,
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UNITED STATES PATENT OFFICE.

BENJAMIN S. WHEELER, OF ORANGE, NEW JERSEY.

GAME.

SPECIFICATION forming part of Letters Patent No. 296,900, dated April 15, 1884.

Application filed July 27, 1883. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN S. WHEELER, of Orange, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements Relating to Games, of which the following is a specification.

The object of the invention is to produce a device which shall be attractive to persons of all ages, and afford a pleasurable exercise of the mental faculties, and shall also perform a useful part, educationally, by familiarizing the operator with the different combinations of letters in producing words and short sentences.

The following is a description of what I consider the best means of carrying out the invention.

The accompanying drawings form a part of this specification.

Figure 1 is a face view. Fig. 2 is a section on the line *r r*, Fig. 1. Fig. 3 is a section on the line *s s*, and Fig. 4 a section on the line *t t*. Fig. 5 is a perspective view of one of the blocks detached.

Similar letters of reference indicate corresponding parts in the figures where they occur.

I provide what I term a "board," A, which may be a literal board of lumber; or it may be a corresponding piece of metal, papier-maché, or various other material. It is formed with a series of connecting-grooves of T-shaped cross-section. I will use the letter *a* to designate the whole of these connected grooves, employing additional marks, as *a'* *a''*, when necessary to indicate special parts thereof. I provide also a long recess, *a**, having a cross-section corresponding to a portion of a circle, all as indicated in Fig. 1.

I provide a series of movable blocks, B, of rectangular section, each provided with an enlargement, B'. These blocks B B' correspond with and are adapted to match in the grooves *a*, and are easily movable longitudinally in such grooves; but the engagement of the parts B' of the several blocks B with the wide portion of the groove renders it impossible to remove any of the blocks entirely from the several connected grooves. They may all be shifted about in various positions in the said system of grooves.

On the projecting end or front face of each of the blocks B, I print, paint, or otherwise produce one of the letters of the alphabet. I have in my experiments employed plainly-

printed impressions from type with black ink upon white paper, the pieces of paper containing the several letters being cut out and attached upon the fronts of the several blocks by common paste.

C is a straight shaft, of stout wire or other suitable material, extending along the axial line of the recess *a**. The ends are engaged with the board A.

D D, &c., are narrow wheels mounted on the shaft C, so that they are free to be revolved independently. On the periphery of each wheel I print, paint, or otherwise produce one or more of the letters of the alphabet. I have in my experiments employed letters printed with types in black ink upon white paper, properly cutting the paper and pasting it in the required positions upon these several wheels.

E E, &c., are washers, of metal or other suitable material, interposed between the several wheels D. The central one of the set of washers E is engaged firmly with the board A, and aids to support the shaft C truly in position. The remainder of the washers E are loose. The several wheels and washers are compressed together axially by a gentle spring, G, mounted at one end of the series and abutting against the end of the recess *a**.

It will be observed that there are enough wheels D and washers E to tightly fill the recess *a** from one end to the other; but there should be only enough of the blocks B B' to a little more than half fill the series of connected grooves *a'*.

I have in my experiments produced what I have termed the "board" A, with its T-sectioned grooves *a* of pine wood, in three layers. The back layer is continuous. The mid layer is slotted, so to speak, or cut away to correspond to the groove desired. The front layer is also slotted to correspond thereto, but with narrower slots. The width of the slots in the front layer should be only a little greater than the width of the body B of the several blocks B B'.

In using the device to interest and instruct children the wheels D are turned and left in such position as presents the letters in the proper order to produce one or more words. If there is only a sufficient number of blocks B B' to have one block for each letter of the alphabet, care should be taken to select words and sentences which do not require any letter to be repeated—as Baltimore, Charleston,

Newark, Paterson, Orange, bridge, north, south, east, west, up, down, city, country, rise, sink, come up, go in, stand, walk, run. The player takes the board, and finding the blocks B B' variously confused, as they may have been left after having completed a previous word, slides the several blocks about in the several grooves until the proper arrangement of the blocks is effected in the straight upper horizontal groove.

I attach importance to the fact that there is one horizontal groove in which the words may be produced with a transverse groove at each end thereof. Also, that there is a groove connecting the transverse end grooves, besides the main groove in which the words are produced. Also, that there are several pocket-grooves which do not connect across, and are each adapted to hold only one or some limited number of the blocks. I will designate the main longitudinal groove by a' , the parallel groove a'' , the respective transverse grooves at the ends a^3 , and the several short grooves or pockets a^4 .

In effecting the required changes of position the blocks may at the commencement be moved freely through the longitudinal grooves from one end to the other. So soon as the word begins to be formed in the groove a' , that groove is shut up and the transpositions of a block from one end groove, a^3 , to the opposite end groove correspondingly marked must be effected through the groove a^2 . When, as will usually be the case, there are many letters in the way which are not wanted, the ends of the transverse grooves a^3 and the pocket-grooves a^4 must be liberally and skillfully used—in some cases many times—to shift the letters about and induce the final required positions.

The game not only familiarizes the player with the letters, and with their arrangement in spelling words, but with very immature players performs a useful function in inducing sharp attention to forms and to the prompt recognition of slight differences. It also cultivates in players of all degrees of development patience and skill in the attainment of desired ends.

Modifications may be made in many of the details. What I have termed a "board" may be produced by molding or other ordinary or suitable means from a great variety of materials. Where the expense will be warranted, the edges of the grooves may be faced with brass, German silver, or other suitable material harder and better able to withstand wear than the main body. The device may be made of various sizes. I propose in some cases to make the board of hard rubber and the blocks of ivory or other analogous white material with the letters in black, or, preferably, a deep color. I can omit the engagement of the central washer, E, with the board, and leave all the washers loosely strung on the shaft C; or I can engage a greater number of the washers E with the board. I can make the entire series of washers each

with a strong spur reaching into and engaging firmly with the board A. Instead of making the grooves a of T-shaped section, they may be simply dovetailed, and the invention may be used with some success; but I much prefer the T-shaped section, as it allows a large amount of looseness without danger of the blocks becoming displaced. Parts of the invention may be used without the whole. I can employ a section of slate or other convenient marking-surface, on which the teacher or more advanced player may write or produce any proper letters of the printing form to present the word or words to be imitated by the player. I prefer the exact construction shown. I propose to make larger and more expensive forms, in which there shall be a greater number of the blocks B B', in which case I can simply duplicate or triplicate the alphabet; but, preferably, I will provide in such cases only one each of the rarer letters—as J Q X Z—and provide a greater number of those letters—as E and A—which are very frequently required. I can produce the Arabic numerals or other devices on the faces of some of the blocks, if desired. I can make various attachments. I propose in some instances to employ a movable ribbon of paper or other material, carrying pictures into and out of view; but I deem it important in such case to also plainly print the name in connection with each object. The mind of the player will be sufficiently taxed in finding the blocks and moving them to their correct positions with the properly-spelled word plainly before him.

The game may aid in instructing in foreign languages.

I claim as my invention—

1. The board A, having the connected grooves a and the recess a^* , in combination with the blocks B B', sliding in the grooves a , and the wheels D, capable of being turned in the recess a^* , and adapted for joint operation, substantially as herein specified.

2. The series of blocks B B', each carrying a letter on its face, in combination with each other and with the series of wheels D, separating-washers E, and shaft or axle-wire C, and with a board having a system of connected grooves, a , and a recess, a^* , all arranged for joint operation, as herein specified.

3. A toy or game apparatus adapted for educational purposes, having a series of grooves and letter or figure bearing blocks movable therein while not entirely separable therefrom, in combination with each other, and with convenient means for holding and exhibiting changeable copies in proximity thereto, substantially as and for the purposes herein specified.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

Witnesses: BENJAMIN S. WHEELER.
CHARLES R. SEARLE,
WM. C. DEY.