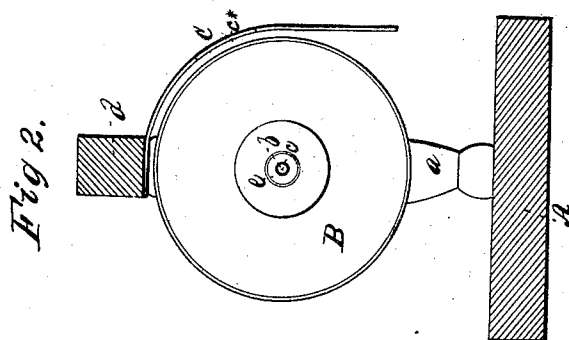
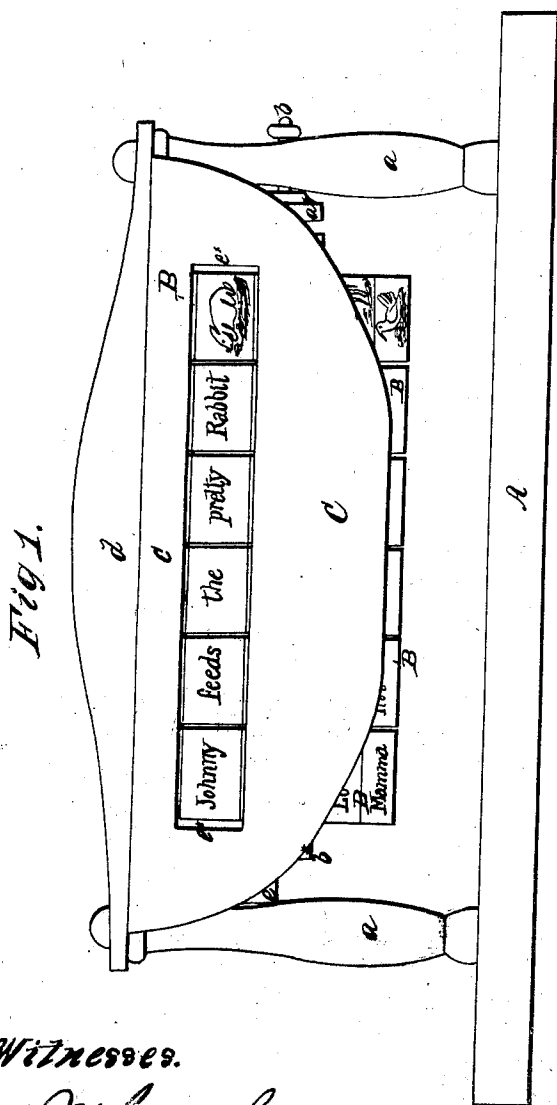
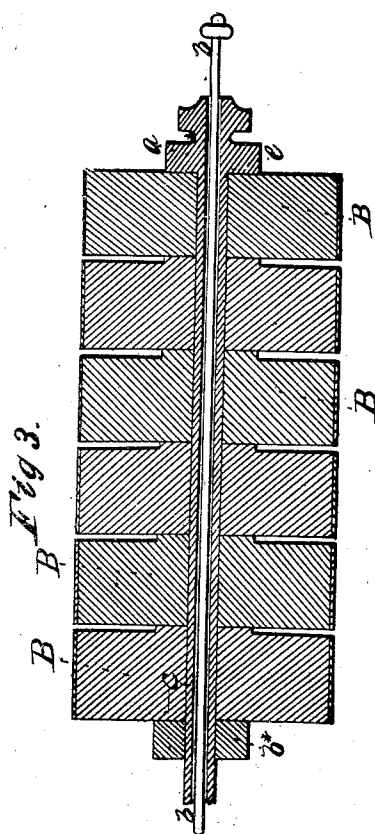


C. Richardson & J. Graeme, Jr.

Reading Blocks.

N^o 69482.

Patented Oct. 1, 1867.



Witnesses.

*J. M. Coombs
J. W. Reed*

Inventor.

*Charles Richardson
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United States Patent Office.

CHARLES RICHARDSON AND JOHN GRÆME, JR., OF NEW YORK, N. Y.

Letters Patent No. 69,482, dated October 1, 1867.

LOGOTROPE.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, CHARLES RICHARDSON and JOHN GRÆME, Jr., both of the city, county, and State of New York, have invented certain new and useful improvements in Logotropes; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a portion of this specification, in which—

Figure 1 is a side view of a logotrope constructed according to our invention.

Figure 2 is a vertical transverse section of the same.

Similar letters of reference indicate corresponding parts in all the figures.

This invention is designed to promote the amusement and education of children, and it consists in a novel arrangement of parts, whereby words printed or otherwise formed upon the peripheries of a number of disks may be conveniently transposed to form different sentences, and when thus arranged may be secured and rotated as one cylinder, to bring each sentence successively in view.

To enable others to understand the nature and construction of our invention, we will proceed to describe it with reference to the drawings.

A shows the base of the device, which is provided with two standards, *a*, from one to the other of which there extends a horizontal supporting-rod, *b*, upon which is placed the cylindrical sleeve *c*, the said sleeve being furnished at one end with a head, *a**, and at the other with a movable nut, *b**, which may be either screwed upon the said end of the sleeve, or may be fitted so tightly thereon as to be held in place by friction. This sleeve *c* is passed centrally through a number of disks, *B*, which may be of any desired width and diameter, and which, being placed side by side, may be clamped so closely together by tightening the nut *b**, that they will turn simultaneously upon the supporting-rod *b*, or, when the said nut is loosened, may be turned or rotated upon the sleeve, independently of each other, all as hereinafter fully set forth. Printed, formed, or attached, at equal distances apart, upon the periphery of each disk *B*, and in a position parallel with the axis thereof, are any desired number of suitable words. One or more of the aforesaid disks may, if preferred, be furnished at its periphery with figures or cuts of animals, birds, &c., in lieu of words. By first loosening the nut *a**, the several disks may be turned, to bring the words formed upon the periphery of each in line with those of the others, so that, suitable words being selected, sentences will be formed, the sense or meaning of which may be changed; by turning one or more of the disks, and thus replacing one of the words of each sentence by another, the number of sentences that may thus be successively formed corresponding with the number of possible combinations of the whole number of words. The sentence or sentences being thus formed, the nut *a** is tightened upon the sleeve *c*, thus holding the disks snugly against each other, so that they cannot turn separately, whereupon the entire series of disks may be turned at once (the sleeve *c* turning upon the rod *b*) to bring any portion of the surface thereof, or, in other words, any of the sentences thereon, to the forward side or front of the device, so that such sentence may be conveniently read, the cuts or figures of animals &c., when employed, serving as pictorial illustrations of the subject of the sentence. In order that the sentence to be read may be brought to notice more prominently than would be the case if all the sentences formed by the words at one side of the series of disks were exposed to view at once, a covering-plate, *C*, constructed with a large horizontal slot, *c**, is secured to a cross-piece, *d*, which extends from the top of one of the posts, *a*, to that of the other, and extends forward and downward, over the front side of the aforesaid series, in such manner that when a sentence is brought behind the said slot by the movement of the series of disks, as just hereinbefore described, it will be exposed to view, as shown in fig. 1, while the other sentences will be hidden behind the aforesaid plate.

What we claim as our invention, and desire to secure by Letters Patent, is—

The supporting-rod *b*, sleeve *c*, and nut *b**, arranged in relation with each other and with the disks, furnished with suitable words at their peripheries, substantially as and for the purpose specified.

CHARLES RICHARDSON,
JOHN GRÆME, JR.

Witnesses:

J. W. COOMBS,
G. W. REED.