J. DAVIS.

EDUCATIONAL DEVICE.

APPLICATION FILED SEPT. 10, 1908.

927,499. Patented July 13, 1909.

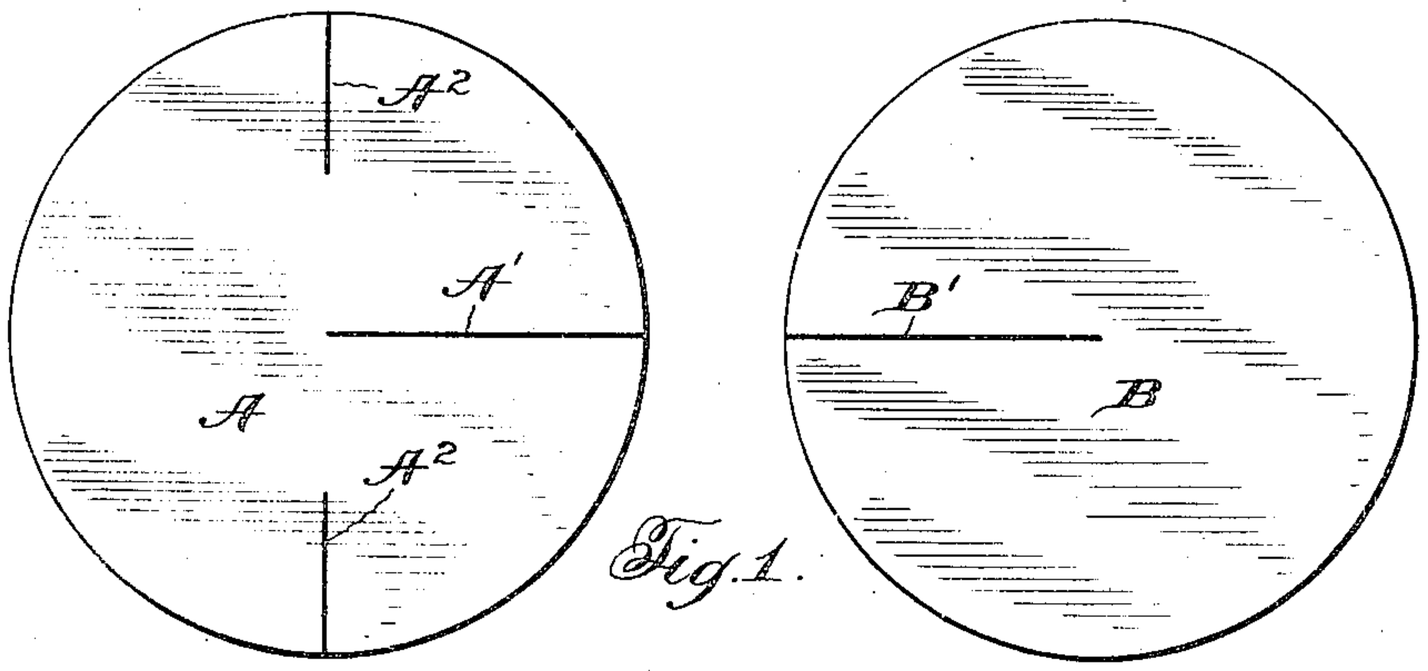

Fig. 1.

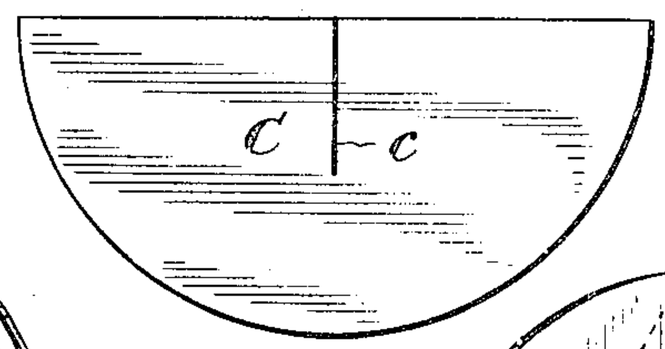

Fig. 2.

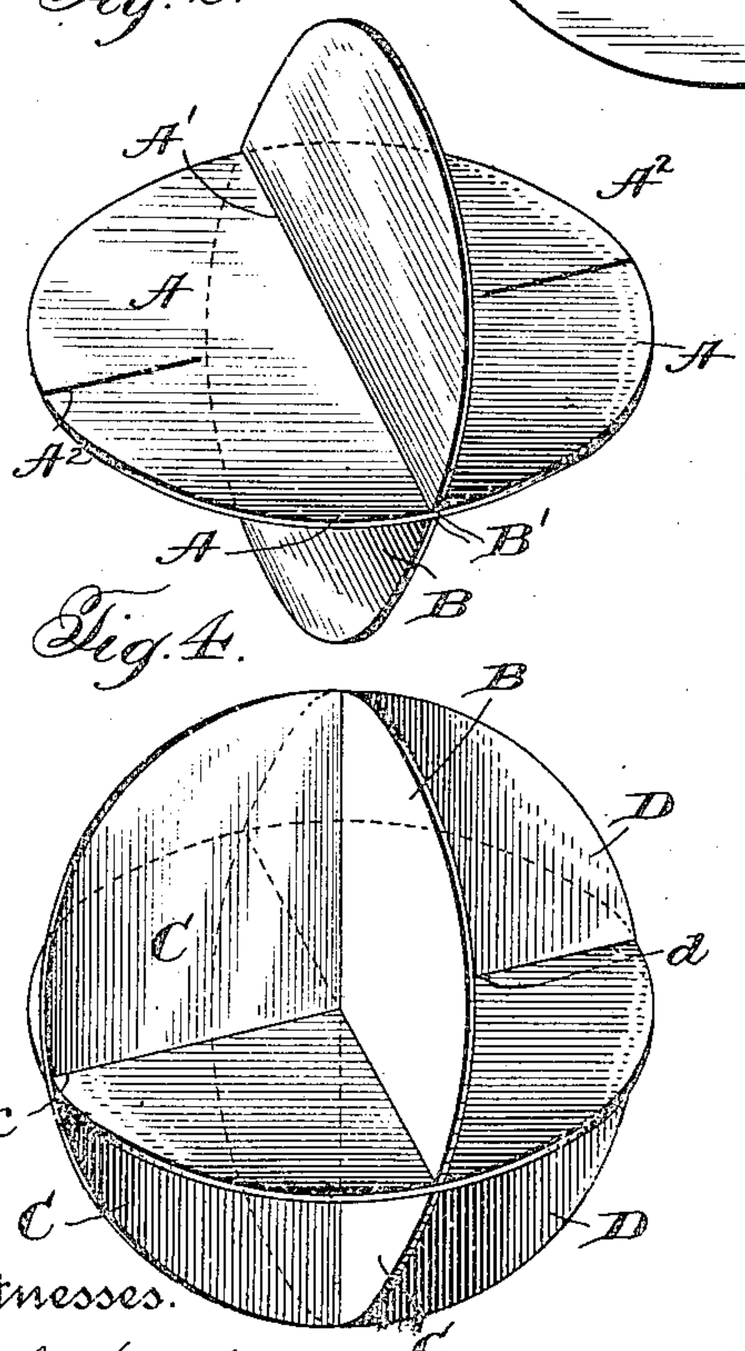

Fig. 4.

Fig. 3.

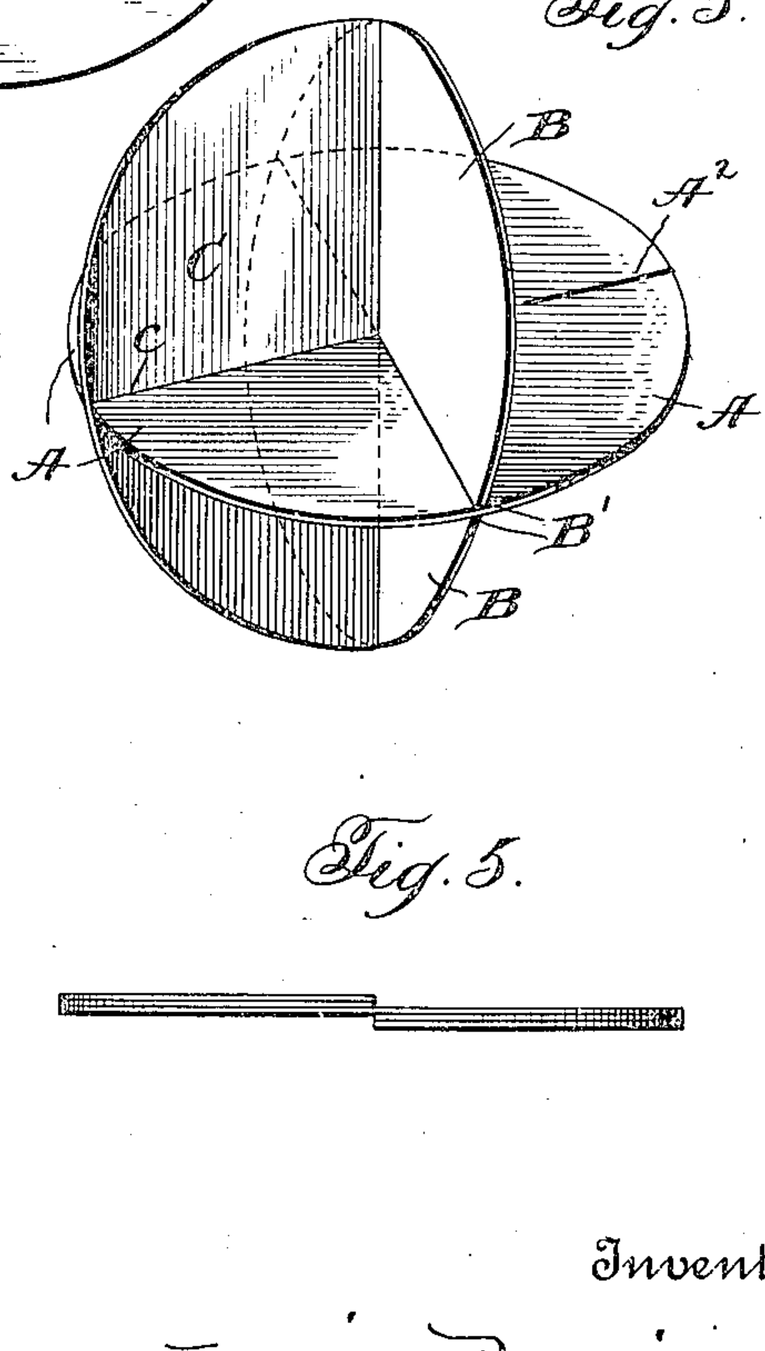

Fig. 5.

Witnesses.

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UNITED STATES PATENT OFFICE.

JESSIE DAVIS, OF CHICAGO, ILLINOIS.

EDUCATIONAL DEVICE.

No. 927,499. Specification of Letters Patent. Patented July 13, 1909.

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To all whom it may concern:

Be it known that I, JESSIE DAVIS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Educational Devices, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to an educational device, primarily adapted for use in the kindergarten and primary schools and having as its object the stimulation and development of the creative activity of children.

With this object in view, the invention has reference to the occupation work of the pupil, or the art of construction, whereby the child can, in its own way, appreciate the constructive work of mankind.

Further, the invention deals with the different modes of arranging and grouping plane surfaces relative to each other and includes a plurality of planes having an interlocking connection one with the other.

More particularly, the invention consists in the formation of a plurality of planes detachably intersected with and by each other by slitting each plane from its outer edge or periphery as the case may be to a point adjacent the center, and sliding the planes together with the slitted portion of each plane straddling or overlapping the solid portion of the intersecting plane projecting beyond the slit.

Other details in construction and arrangement will be pointed out in the description following, reference being especially directed in connection therewith to the accompanying drawings, which form a part hereof.

In the drawings, is shown, for the purpose of illustration, a convenient embodiment of the invention, and Figure 1 is a plan view of each of the parts going to make up three intersecting planes, the several parts being detached for the purpose of clearness, Fig. 2 is a perspective view showing two of the parts assembled to form two intersecting planes, Fig. 3 is a similar view showing three of the parts assembled, Fig. 4 is a similar view disclosing all of the parts assembled to constitute three intersecting planes, and Fig. 5 is a view disclosing the three intersecting planes in folded or collapsed condition.

The same letters designate corresponding parts in the several views of the drawings, A being one plane and constituting the body or foundation to be built up from. This plane I shall designate the first plane, the same being conveniently of circular formation, and having a slit A′ extending from the periphery thereof to its center, oppositely disposed slits A^2 being formed at right angles to the first mentioned slit and extending from the periphery to a point midway of a line drawn from the periphery to the center of the plane. B is a second plane, likewise conveniently formed circular in outline, and having a slit B′ extending from its periphery to its center. The planes A and B are thus assembled by sliding one over the other at right angles, the slit B′ of the plane B straddling the solid portion of the plane A that projects beyond the slit A′ thereof. Two intersecting planes are thereby formed. C, D, designates similarly formed members, semi-circular in configuration, and each are provided with slits *c*, *d*, respectively, extending from the center of the straight edge to a point midway of a line drawn at right angles from the straight edge to the periphery of the curved portion. As thus constructed, the parts C and D are arranged to slide over the first plane A, the slitted portions *c* and *d* engaging the solid portions of said plane A extending beyond the slits *c* and *d*. When seated, these member C and D engage opposite surfaces of the second plane B, and constitute in effect continuations one of the other whereby is formed the third intersecting plane.

Each of the parts going to make up the plane is preferably flexible in construction, conveniently a heavy paper, sufficiently flexible to fold easily, yet stiff enough to retain its shape. As thus constructed, the parts are collapsible after the manner shown in Fig. 5, presenting the appearance of a series of superimposed layers. In this way, the device may be packed and shipped from school to school, or the child can fold and take home, there to open or reconstruct it and show the result of his day's occupation.

It will be appreciated that the child, through play with the intersecting planes, not only learns how to intersect, but the forms suggest to him some of the things he can afterward make, as troughs, cradles, chairs etc., and all this without direct teaching, whereby the learning is developed and knowledge retained much longer and to bet-

fer advantage than were it forced upon him by instruction. By simply playing with the device, the child soon learns to measure, he will gain skill of hand through cutting, his inventive power in fastening planes together is developed, and he learns how things about him are made. In other words, he gains an understanding of the work of man.

I claim:

1. An educational device of the character described, comprising a plurality of circular planes intersected by and with each other, the planes having coöperating slitted portions, the slitted portion of each plane straddling the solid portion of the intersecting plane that projects beyond the slit.

2. An educational device of the character described comprising a plurality of planes of like configuration adapted to be intersected by and with each other, each plane having a slitted portion extending from the outer edge to the center, the slitted portion of each plane straddling the solid portion of the intersecting plane that projects beyond the slit, one of said planes having auxiliary oppositely disposed slitted portions, and two parts formed after the fashion of one-half of one of the aforementioned planes, said parts having slitted portions coöperating with said auxiliary oppositely disposed slitted portions on said first mentioned planes, whereby when assembled the said parts will constitute a third plane intersecting by and with the first mentioned planes.

3. An educational device of the character described comprising a plurality of parts each having a slitted portion whereby they may be detachably interlocked to form three similar planes intersected by and with each other.

4. An educational device of the character described comprising a plurality of planes of like configuration which are intersected by and with each other through the medium of coöperating longitudinal slits in each, said planes being constructed and arranged to collapse and offer no protuberance beyond the outer edge of one another when collapsed while maintaining the interlocking condition.

5. An educational device of the character described comprising a plurality of planes adapted to be intersected by and with each other, each plane having a slitted portion extending from the outer edge to a point adjacent the center, the slitted portion of each plane straddling the solid portion of the intersecting plane that projects beyond the slit, and one of said planes having an auxiliary slitted portion extending at an angle to the first mentioned slit therein and terminating short of the center, and a part having a slit coöperating with said auxiliary slit whereby the latter slitted portion straddles the solid portion of the intersecting plane that projects beyond the slit.

6. An educational device of the character described comprising a circular plane having a slit extending from the outer edge to the center, an auxiliary circular plane having a slit extending from the outer edge to the center, the slitted portion of each plane straddling the solid portion of the intersecting plane that projects beyond the slit, the auxiliary plane also having oppositely disposed slitted portions extending from the outer edge of the plane to a point short of the center and at right angles to the first mentioned slit, and two semicircular parts each having slitted portions corresponding with the said oppositely disposed slitted portions of the auxiliary plane, whereby when assembled the said parts will constitute a third circular plane intersecting by and with the first mentioned planes.

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

JESSIE DAVIS.

Witnesses:
E. D. NEAL,
J. N. CROUSE.