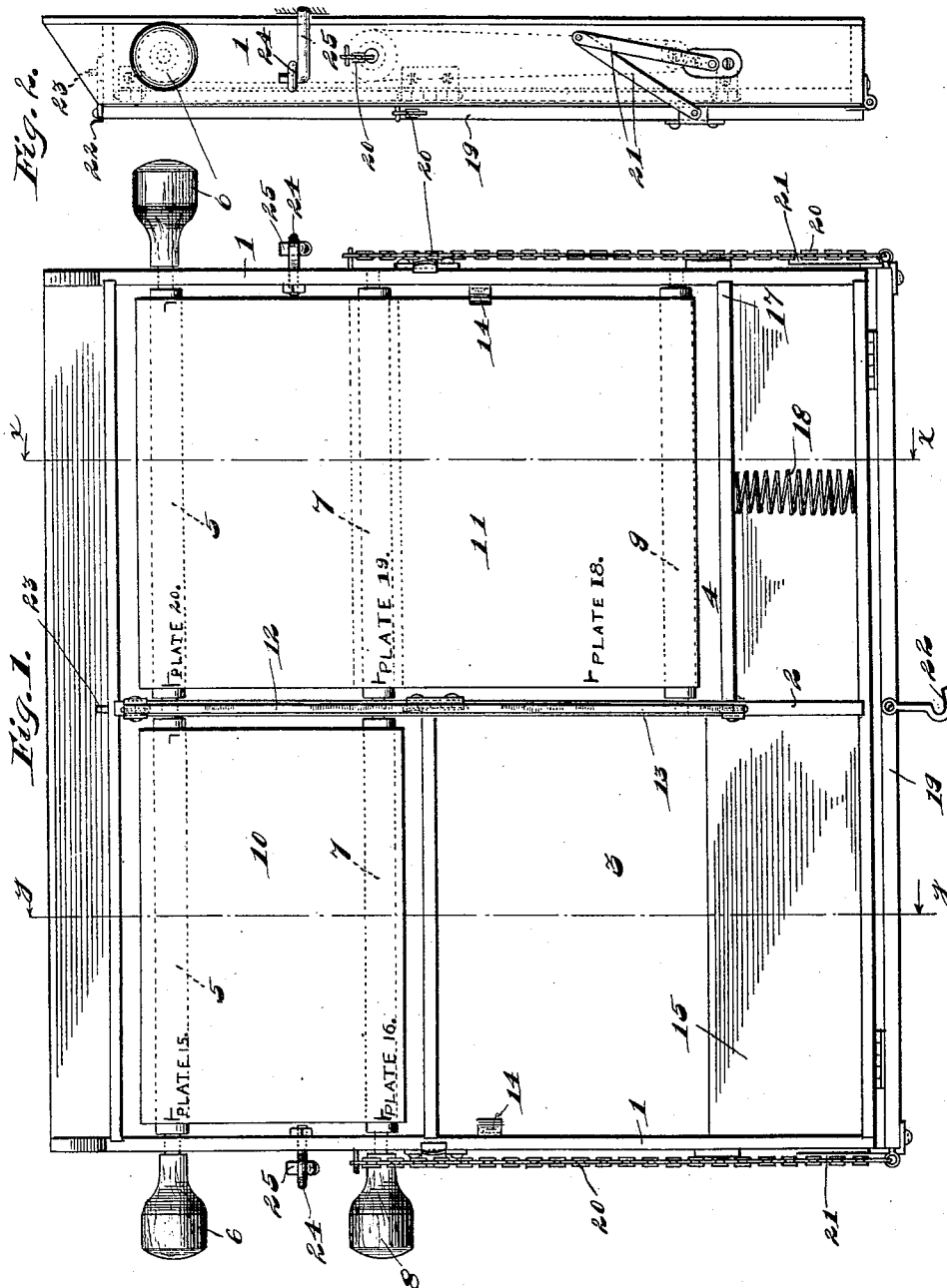


F. J. WESTGATE.
EDUCATIONAL APPARATUS.
APPLICATION FILED JULY 21, 1911.

1,018,146.

Patented Feb. 20, 1912.

2 SHEETS—SHEET 1.



Witnessed:

C. E. Wessels.

B. G. Richards

Inventor:

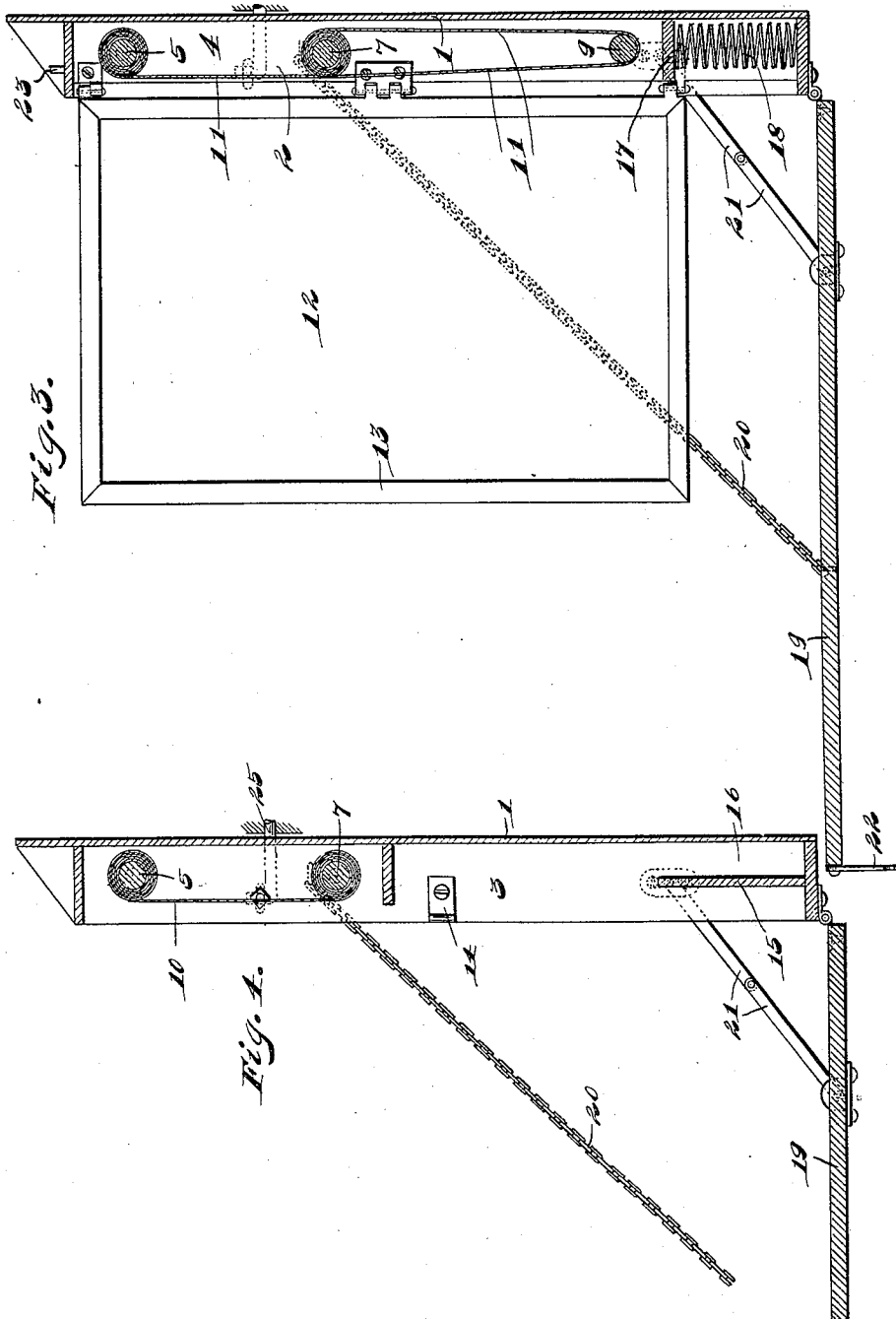
Frank J. Westgate,
By Joshua R. H. Voss
his Attorney.

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2 SHEETS—SHEET 2.



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Frank J. Westgate,
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UNITED STATES PATENT OFFICE.

FRANK J. WESTGATE, OF SUPERIOR, WISCONSIN.

EDUCATIONAL APPARATUS.

1,018,146.

Specification of Letters Patent.

Patented Feb. 20, 1912.

Application filed July 21, 1911. Serial No. 639,774.

To all whom it may concern:

Be it known that I, FRANK J. WESTGATE, a citizen of the United States, and a resident of the city of Superior, county of Douglas, and State of Wisconsin, have invented certain new and useful Improvements in Educational Apparatus, of which the following is a specification.

My invention relates to improvements in educational apparatus and has for its object the provision of an educational apparatus which is of improved construction and efficient in operation.

The invention consists in the combinations and arrangements of parts hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings forming a part of this specification, and in which,

Figure 1 is a front elevation of an apparatus embodying my invention, Fig. 2, a side elevation of the same with the slate member thereof shown as in closed position, Fig. 3, a section of the apparatus taken on line $x-x$ of Fig. 1, and Fig. 4, a partial section of the apparatus taken on line $y-y$ of Fig. 1.

The preferred form of construction as illustrated in the drawings comprises a casing 1 which may be of wood or other suitable material. A vertical partition 2 is provided in casing 1 and divides said casing into two compartments 3 and 4 as shown in Fig. 1. An operating roller 5 is extended across the upper portions of both of said compartments, being given bearings in partition 2 and the end walls of casing 1 as indicated. At each end roller 5 is provided with an operating knob or handle 6 by means of which said roller may be readily rotated. Another operating roller 7 is arranged across the central portions of compartments 3 and 4 below roller 5 and is also given bearings in partition 2 and the end walls of casing 1. At one end the roller 7 is provided with an operating knob or handle 8 by means of which it may be readily rotated. An idler roller 9 is mounted in the lower portion of compartment 4 and is given bearings in partition 2 and the corresponding end wall of casing 1. A web 10 preferably of paper and provided with educational plates is wound upon rollers 5 and 7 in the upper portion of compartment

3 as indicated. The plates on web 10 are arranged and numbered consecutively from the upper end of said web to the lower end as indicated. Another educational web 11 is wound upon rollers 5 and 7 in compartment 4 and passed over idler roller 9 as indicated. Web 11 is provided with educational plates arranged and consecutively numbered from the bottom upwardly or in other words oppositely to the arrangement of the plates on web 10. A door 12 is hinged to partition 2 and is provided with catches 13 adapted to engage catches 14 on the ends of casing 1 so that said door may be readily secured in position to close either of the compartments 3 or 4 and obscure the view of the web therein. By this arrangement it will be observed that, the view of web 11 may be obscured and web 10 fed from roller 7 to roller 5 in compartment 3 by operation of roller 5, thus presenting the plates on said web to view consecutively in accordance with their arrangement and numbering. As roller 5 is thus operated it will be observed that web 11 will be wound from roller 7 onto roller 5. After web 10 has thus been fully exhibited the door 12 is swung to its other position to obscure web 10 and disclose web 11 and web 11 wound from roller 5 onto roller 7 by manipulation of knob 8, thus exposing the plates on web 11 to view consecutively in accordance with their numbers. It will be observed that as web 11 is thus exhibited, web 10 will simultaneously be rewound upon roller 7 for a new exhibition thereof, and that as web 10 it wound upon roller 5 during an exhibition, web 11 will be rewound onto roller 5 for a new exhibition. Thus each web is rewound into position for a new exhibition during the exhibition of the other web.

A vertical transverse partition 15 is arranged in the lower portion of compartment 3 and forms a pocket or receptacle 16 for the reception of books, paper or the like. A transverse horizontal partition 17 is arranged across the lower portion of compartment 4 and a spring 18 is arranged between partition 17 and the bottom of casing 1 to serve as a means for holding lead pencils, pens or similar articles. A slate member 19 is hinged to the bottom of casing 1 and chain 20 and pivoted links 21 are provided for holding said slate member in horizontal position as indicated in Figs. 3 and 4.

The upper or inner surface of member 19 is provided with a slate coating. The said member thus serves either as a slate or as a desk top for the pupil. At its outer end
 5 slate member 19 is provided with a hook 22 adapted to engage a pin 23 secured to the top of casing 1, and by means of which said slate member may be locked in folded position as indicated in Fig. 2.

10 At each side casing 1 is provided with an eye 24 adapted to engage a hook member 25 secured in the wall of a room or other suitable support, said eyes and hooks serving as a convenient means for supporting the apparatus in operative position.

15 While I have illustrated and described the preferred form for carrying my invention into effect, this is capable of variation or modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction as set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended
 20 claims.

Having described my invention what I claim as new and desire to secure by Letters Patent is:

1. An apparatus of the class described
 30 comprising a casing; two oppositely disposed webs arranged in said casing; means for simultaneously obscuring the view of one of said webs and exposing the other to view; and means for feeding said webs in
 35 opposite directions, substantially as described.

2. An apparatus of the class described comprising a casing; two oppositely disposed webs arranged in said casing; a door
 40 hinged between said webs and adapted to be swung over either of them; and means for feeding said webs in opposite directions, substantially as described.

3. An apparatus of the class described
 45 comprising a casing; a vertical partition in said casing dividing it into two compartments; an operating roller extending across the upper portions of said compartments; an operating roller extending across the central
 50 portions of said compartments; an idler roller arranged across the lower portion of one of said compartments; and oppositely disposed educational webs wound upon said operating rollers, one of said webs being

passed over said idler roller, substantially as described. 55

4. An apparatus of the class described comprising a casing; a vertical partition in said casing dividing it into two compartments, a door hinged to said partition and
 60 adapted to close either of said compartments; an operating roller extending across the upper portions of said compartments; an operating roller extending across the central portions of said compartments; an idler
 65 roller arranged across the lower portion of one of said compartments; and oppositely disposed educational webs wound upon said operating rollers, one of said webs being passed over said idler roller, substantially as described. 70

5. An apparatus of the class described comprising a casing, a vertical partition in said casing dividing it into two compartments; a slate member hinged to the bottom
 75 of said casing; an operating roller extending across the upper portions of said compartments; an operating roller extending across the central portions of said compartments; an idler roller arranged across the
 80 lower portion of one of said compartments; and oppositely disposed educational webs wound upon said operating rollers, one of said webs being passed over said idler roller, substantially as described. 85

6. An apparatus of the class described comprising a casing, a vertical partition in said casing dividing it into two compartments; a door hinged to said partition and adapted to close either of said compartments;
 90 a slate member hinged to the bottom of said casing; an operating roller extending across the upper portions of said compartments; an operating roller extending across the central portions of said compartments; an idler roller arranged across the
 95 lower portion of one of said compartments; and oppositely disposed educational webs wound upon said operating rollers, one of said webs being passed over said idler roller, substantially as described. 100

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANK J. WESTGATE.

Witnesses:

E. M. WASON,

J. H. HUYENER.