April 19, 1938. W. J. ELLINSON 2,114,417

STEREOPTICON SLIDE AND CARRIER THEREFOR

Filed May 10, 1937 2 Sheets-Sheet 1

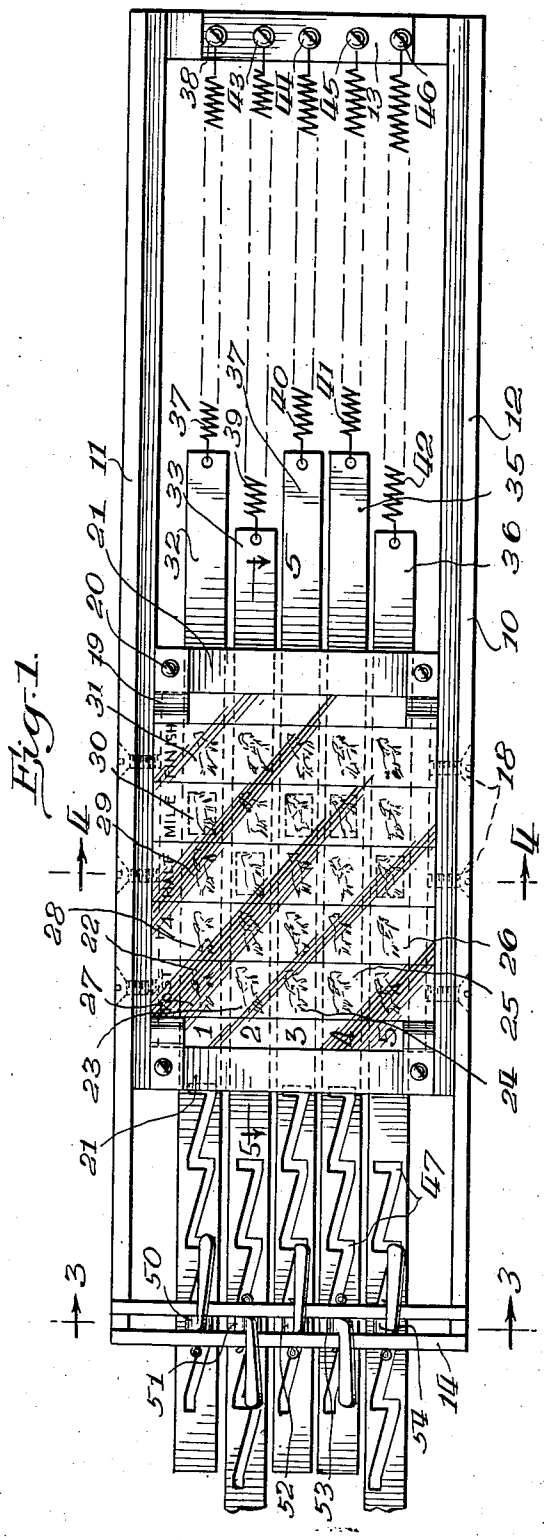


Fig. 1.

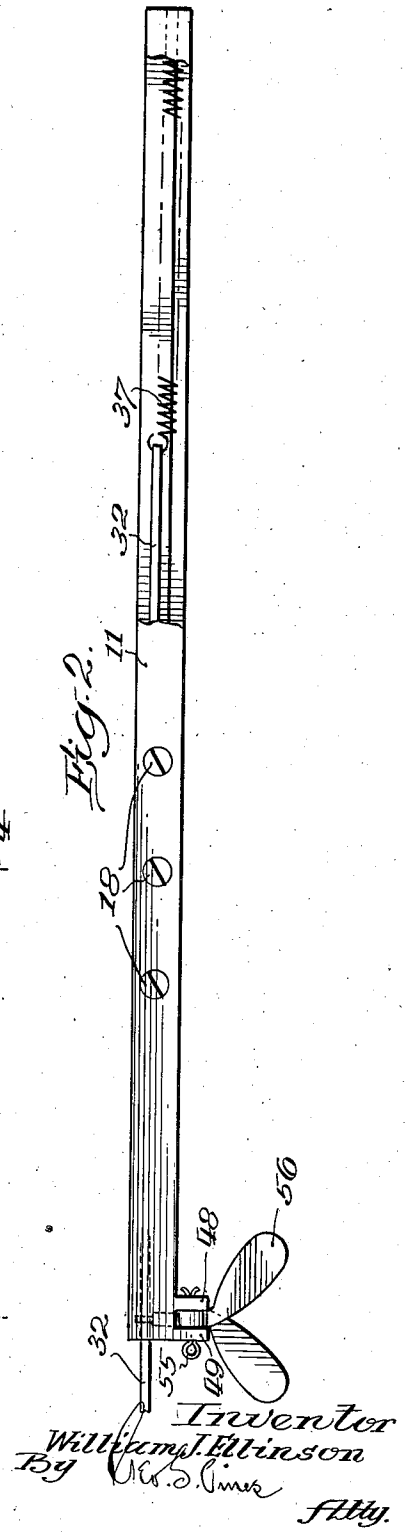


Fig. 2.

Inventor
William J. Ellinson
By
Atty.

April 19, 1938. W. J. ELLINSON 2,114,417

STEREOPTICON SLIDE AND CARRIER THEREFOR

Filed May 10, 1937 2 Sheets-Sheet 2

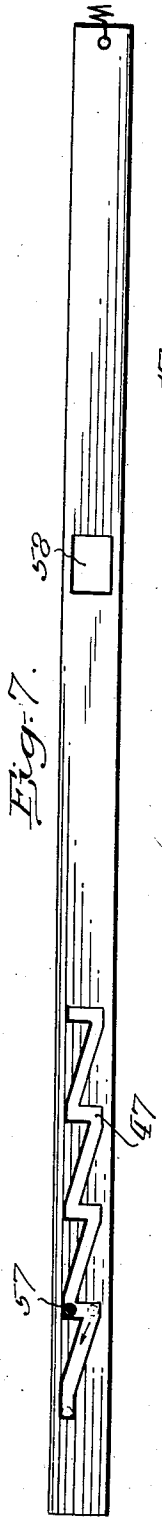


Fig. 7.

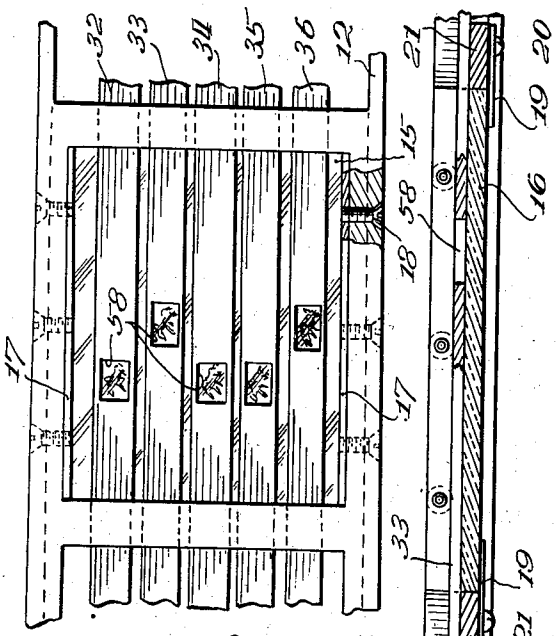


Fig. 5.

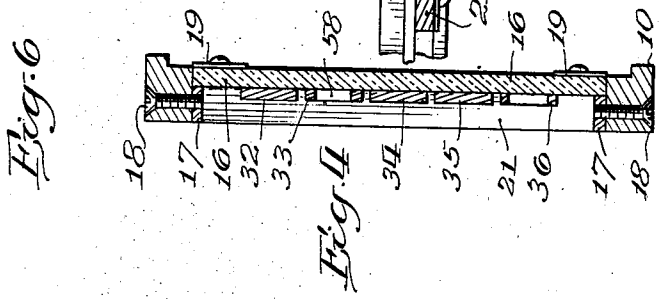


Fig. 6.

Fig. 4.

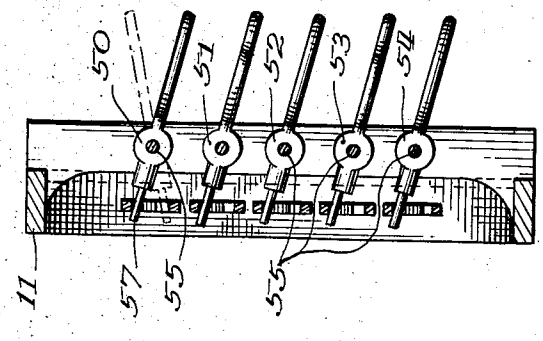


Fig. 3.

Inventor
William J. Ellinson
By Wm. D. Cline
Atty.

Patented Apr. 19, 1938

2,114,417

UNITED STATES PATENT OFFICE

2,114,417

STEREOPTICON SLIDE AND CARRIER THEREFOR

William J. Ellinson, Chicago, Ill., assignor to Frank E. Shudnow, Chicago, Ill.

Application May 10, 1937, Serial No. 141,655

7 Claims. (Cl. 88—26)

This invention relates to a novel and improved construction of stereopticon slide and carrier therefor adapted for disposition in a moving picture projection machine, whereby the operation of the device may be observed upon a screen for the purpose of displaying upon the screen the progress of a certain game of chance in which the audience may be participating.

The device is particularly adapted for use in the playing of a game popularly known as "Horse racing", which game includes the provision of a number of lanes with an object representing a horse disposed in each of said lanes, said objects being numbered from "1" up, and the movement of said objects in their respective lanes being determined by the throwing of dice or the actuation of some other chance device. Thus, for example, if dice are used, the number on each die will entitle the object or "horse" bearing the corresponding number to move one space, and if a double should be thrown with said dice, that is, the same number should appear on both dice, then the object bearing that corresponding number would be moved two spaces. The object first reaching the end of its lane, which may be of varying length, would be the winner of the game.

It is, therefore, the main object of this invention to provide a slide of the character described adapted for disposition in a moving picture projection machine, whereby a plurality of lanes, each marked off in a series of spaces, may be produced on a screen, said slide having means associated therewith for displaying on the screen the objects disposed in their respective lanes, and means associated with said slide for indicating on the screen the movement of said objects in their respective lanes from their starting point to the finish line.

Another object of the invention is to provide a novel and improved device of the character described, having novel and improved means for indicating the movement of the objects as the game progresses, whereby the exact position of each object may be readily observed by the audience during the progress of the game.

Another object of the invention is to provide a slide of the character described, arranged in a novel and improved construction of carrier, said slide having provided thereon a plurality of parallel lanes, each lane being provided with a series of spaces; disposed within each space is an object adapted for projection on to the screen, means disposed behind said slide, including a plurality of bars normally preventing the passage of light rays, each of said bars having an opening provided therein to correspond in size and shape to one of the spaces provided on the slide, whereby the object arranged in a space disposed immediately opposite the opening in the bar may be projected on to the screen.

A still further object of the invention is to provide a slide of the character described, having certain characters provided thereon for projection on to a screen and means associated with said slide for blocking out certain of said characters, whereby a predetermined arrangement of said characters may be permitted to be projected on to said screen.

A still further object of the invention is to provide a slide of the character described having indicia provided thereon for projection on to a screen, means associated with said slide for blocking out portions of said indicia, said last mentioned means including a plurality of movable bars disposed in back of said slide, said bars being provided with openings intermediate their ends, adapted for alignment with certain of said indicia for permitting the projection of desired indicia on to said screen.

A still further object of the invention is to provide a slide of the character described, which may be constructed along lines convenient for low cost manufacture, which may be simple in construction, assembly and operation, and which will, at the same time, be highly efficient for carrying out the purposes for which it is designed.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention consists in certain novel features of construction, arrangement and combination of parts hereinafter more fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportion, size and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

For the purpose of facilitating an understanding of my invention, I have illustrated in the accompanying drawings a preferred embodiment thereof, from an inspection of which, when considered in connection with the following description, my invention, its mode of construction, assembly and operation, and many of its advantages should be readily understood and appreciated.

Referring to the drawings, in which the same characters of reference are employed, to indi-

cate corresponding or similar parts throughout the several figures of the drawings:

Fig. 1 is a front elevational view of a slide and carrier therefor, constructed in accordance with my invention;

Fig. 2 is a top plan view of the same with a part thereof being broken away;

Fig. 3 is a transverse sectional view taken substantially on line 3—3 of Fig. 1;

Fig. 4 is a transverse sectional view through the slide taken substantially on line 4—4 of Fig. 1;

Fig. 5 is a sectional view taken substantially on line 5—5 of Fig. 1;

Fig. 6 is a rear elevational view of the carrier portion carrying the slide;

Fig. 7 is an elevational view of one of the bar members associated with the slide for blocking out a portion of the slide.

In the playing of the game, popularly known as "Horse Racing," there is generally provided a chart on which are ruled off a plurality of parallel lanes, each lane being provided with a number of spaces, and disposed in each lane is an object bearing a number. The purpose of the game is to start all of said numbered objects at a starting point, and to move the same in their respective lanes, one space at a time, until a finish line is reached, and the object which first reaches said finish line constitutes the winner of the game. The movement of said objects in their respective lanes is determined by either the throwing of dice or the spinning of a chance device. In either case, the number that turns up on the dice or on the spinning device, entitles the object having the corresponding number to move one space towards the finish line in its lane, and as already stated, the object first reaching the finish line constitutes the winner of the game.

In the embodiment illustrated, there is provided a slide which may be ruled off in a manner similar to the chart above referred to, said slide being mounted in a suitable carrier adapted for disposition in a motion picture projection machine, whereby the entire chart may be displayed upon a screen, the movements of the objects in their respective lanes being indicated on the screen by the provision of a plurality of parallel slidable bars arranged in the carrier, each bar being disposed in alignment with a lane, provided on the slide, and each bar being constructed of a material which will prevent the passage of light rays through the slide on to the screen, except for an opening provided in the bar, which opening will permit the display of the object provided on the slide on to the screen. Thus, by sliding said bars so that the opening thereof will move along the slide to successively align itself with the spaces ruled off on the slide, the position of the object as it moves from the starting point on the slide to the finish line, may be readily observed on the screen. The mechanism of the present invention includes novel and improved means for quickly and readily moving said bars to permit the proper display of the objects provided on the slide on the screen as the game progresses.

Referring to the drawings more specifically by characters of reference, the numeral 10 designates generally a carrier made of any suitable material, such as, cast aluminum or the like, which carrier is of substantially rectangular formation, having the top and bottom sides 11 and 12, and the ends 13 and 14. Provided intermediate the ends 13 and 14 in said carrier is a frame portion 15, within which is adapted to be mounted a transparent plate 16, which is preferably formed of glass, with one face thereof held in place against the bars 17 as shown in Fig. 4, said bars being secured to the sides 11 and 12 of the carrier by means of the screws 18, or in some other suitable and well known manner.

The slide 16 is detachably secured in place in the frame portion 15 by means of the corner plates 19, which are secured by means of screws 20 to the side portions 21 of the frame section 15 as shown in Fig. 5.

From the above, it will be readily noted that by loosening the screws 20, the corner plates 19 may be readily moved to a position to permit the removal of the transparent slide 16 whenever it becomes necessary or desirable to do so.

The slide 16 has provided thereon a plurality of parallel lanes 22, 23, 24, 25 and 26 formed by a series of longitudinal lines provided on said slide. In the embodiment illustrated, there is shown five of such lanes, and each lane being provided with a number, as shown in Fig. 1.

Provided on said slide are a series of parallel transverse lines which form a plurality of spaces for each lane, and in the embodiment illustrated there are shown five of such spaces designated by the reference characters 27, 28, 29, 30 and 31. The first of said spaces, No. 27 designates the post position; the space 28 designates the quarter mile position; the space 29 designates the half mile position; the space 30 designates the mile position; and the space 31 designates the finish position.

Within each of said spaces is provided an object which may represent a "horse" or the like, with the objects in any one lane being of a different color from the objects in the other lanes. These objects are adapted to be projected on to the screen when the slide is disposed within a projector and rays of light are permitted to pass through the slide.

Mounted within the carrier 10 are a plurality of slidable bars 32, 33, 34, 35 and 36, the number of said bars corresponding to the number of lanes provided on the slide 16, and each of said bars is disposed in the side members 21 of the frame section 15 for sliding movement therein, as shown in Fig. 4, and in position to completely cover the entire lane opposite which a particular bar is arranged. The bars may be made of any suitable opaque material, such as metal or the like, and each bar has one end thereof secured to one end of a coil spring 37, the other end of which spring is secured to a suitable stud 38 fixedly secured to the end wall 13 of the carrier frame. The springs 39, 40, 41 and 42 similarly secure the bars 33, 34, 35 and 36 to the end wall 13 of the carrier by means of the studs 43, 44, 45 and 46 respectively. The said bars 32 to 36 are guided in their longitudinal movement in the side panels 21 of the frame section 15 and have their ends opposite their spring connected ends extend beyond the end wall 14 of the carrier 10. Each of said bars is constructed in the manner illustrated in Fig. 7 and is provided adjacent the end disposed opposite the end wall 14 with a zig zag opening 47, which opening is arranged to permit five positions for the bar with respect to the slide 16. The five positions to which said bar may be moved correspond to the five stations on the slide and said openings 47, permitting said slide to be held in any one of said five positions to which it may be moved.

The end wall 14 of the carrier 10 is provided with a pair of forwardly extending portions 48 and

48, between which portions are pivotally mounted the operating levers 50, 51, 52, 53 and 54, each of said levers being mounted intermediate its ends on a cotter pin 55, which is secured in the extensions 48 and 49, and each of said levers is provided with a finger piece 56 extending forwardly from said carrier 10 and a pin 57 on the opposite end thereof extending into the zig zag opening 47 in the slide bar with which said lever is associated. The said levers 50 to 54 are weighted, so that they will normally assume the full line position shown in Fig. 3 of the drawings, in which position the pin 57 will be disposed in the zig zag opening 47 to prevent movement of the said bars against the action of the coil spring 37 pulling thereon. However, when the finger piece 56 of any one of said levers 50 to 54 is moved in a counterclockwise direction to the dotted line position shown in Fig. 3, it will permit the spring 37 to pull on the slide bar 32 to move the same one notch to the right as viewed in Fig. 1, until the pin 57 will be brought into engagement with the next succeeding stop of the zig zag opening 47.

Each of the bars 32 to 36 is provided with a rectangular opening 58 intermediate its ends, which opening is arranged in said bar at such a point that when the pin 57 is at the extreme right-hand end of the zig zag opening 47, as viewed in Fig. 7, the opening 58 will be disposed directly in rear of the figure or character provided in the first space of the lane behind which the bar is arranged. When the bar is moved to the right, as viewed in Fig. 1, to bring the pin 57 into engagement with the next stop in the opening 47, the opening 58 will be disposed directly in rear of the character provided in the second space of said lane. Further movement of said bars to the right, as viewed in Fig. 1 will move said opening 58 for alignment with the next succeeding spaces in said lane until the pin 57 reaches the extreme left-hand end of said zig zag opening 47, in which position the opening 58 will be disposed directly in rear of the last space in the lane.

In the operation of the device, the carrier 10 is disposed in a projection machine, so that the characters and other indicia appearing on the slide 16 may be produced or displayed on a screen. The bars 32 to 36 are then moved to their extreme left-hand positions as viewed in Fig. 1, against the tension of their respective springs, said bars being held in said positions by reason of the levers 50 to 54, both inclusive. When in this position, it will be noted that all of the openings 58 in said bars will be in alignment with the characters appearing in the first vertical column of the slide. The game is now ready to begin. The chance device may be spun to determine which numbered object is to be moved. and if, for example, upon the first spinning of the chance device the spinner stops at number 5, the bar 36 will be moved one space to the right by pushing up on the lever 54, the spring 42 urging said lever to the right, as viewed in Fig. 1, when the pin 57 is released from engagement with the first right-hand stop of the zig zag opening 47, which movement of the bar will be brought to a stop when said pin 57 is brought into engagement with the next succeeding stop in said zig zag opening. When in that position, it will be noted that the character on the slide provided in the second space of the bottom lane will be in alignment with the opening 58 in said bar 36, thereby causing the projection of the image of said character through said opening 58 on to the screen. The chance device may then again be operated to determine the next movement of the bars, and this is continued until one of said bars has been moved to the end of its movement to the right, as viewed in Fig. 1, in which position the opening 58 therein will be in alignment with the character provided in the last space of the lane with which said bar is associated, and the person holding the number to that particular lane will be declared the winner of the game.

From the above, it will be noted that the operation of the game may be observed by an entire audience, and that the progress at any point during the playing of the game may be viewed by the entire audience, so that there can be no discussion as to the winner when the game has been completed. It will also be noted that the device is very simple in construction, may be readily assembled, and should be highly durable in operation, as it comprises only a few parts, which will not readily get out of operative condition. It should also be noted that once the device is set, by moving said bars 32 to 36 to their starting positions, it requires only a slight pressure on the levers 50 to 54 to bring about the desired movement of said bars in order to display on the screen the positions of the objects in their respective lanes as the game progresses.

In the embodiment illustrated, there are shown five lanes and five spaces for each lane. It is understood, however, that any number of lanes may be employed, as well as any number of spaces within each lane, and for that purpose slides may be prepared having larger or smaller numbers of lanes and different numbers of spaces in each lane, which slides can be readily removed from or placed into the carrier, as is possible with the construction hereinabove described.

It is believed that my invention, its mode of construction and assembly, and many of its advantages should be readily understood from the foregoing without further description, and it should also be manifest that while a preferred embodiment of the invention has been shown and described for illustrative purposes, the structural details are nevertheless capable of wide variation within the purview of my invention as defined in the appended claims.

I claim:

1. A device of the character described comprising a transparent plate adapted to be held in the slide holder of a light ray projector, a plurality of objects arranged on said plate in parallel vertical and horizontal rows, and means for selectively blocking out certain of said objects, whereby only preselective objects may be projected on to a screen, said last mentioned means including an opaque slidably mounted bar disposed for movement in rear of each of said horizontal rows of objects and extending across the full length of said horizontal row, and each of said bars having an opening provided therein for successively registering with the objects in said horizontal rows.

2. A device of the character described comprising a transparent plate adapted to be held in the slide holder of a light ray projector, a plurality of objects arranged on said plate in parallel vertical and horizontal rows, and means for selectively blocking out certain of said objects, whereby only preselective objects may be projected on to a screen, said last mentioned means including an opaque slidably mounted bar disposed for movement in rear of each of said horizontal rows of objects and extending across the full length of

said horizontal row, each of said bars having an opening provided therein for successively registering with the objects in said horizontal rows, and means for moving said slidable bars.

3. A device of the character described comprising a transparent plate adapted to be held in the slide holder of a light ray projector, a plurality of objects arranged on said plate in parallel vertical and horizontal rows, and means for selectively blocking out certain of said objects whereby only preselective objects may be projected on to a screen, said last mentioned means including an opaque slidably mounted bar disposed for movement in rear of each of said horizontal rows of objects and extending across the full length of said horizontal row, each of said bars having an opening provided therein for successively registering with the objects in said horizontal rows, and means for moving said slidable bars, said last mentioned means permitting step-by-step movement of said slidable bars.

4. A device of the character described, comprising a transparent plate, a frame within which said plate is mounted adapted to be held in the slide holder of a light ray projector, a plurality of objects represented on said plate and arranged in parallel vertical and horizontal rows, an opaque slidably mounted bar arranged for slidable movement in rear of each of said horizontal rows of objects and extending across the full length of said horizontal row, each of said bars being provided with an opening for registering successively with the objects in said horizontal rows, means for mounting said bars in said frame, said means including a coil spring attached to one end of said frame and normally urging said bars in one direction, and means associated with said frame for permitting step-by-step movement of said bars by the action of said coil spring.

5. A device of the character described, comprising a transparent plate, a frame within which said plate is mounted adapted to be held in the slide holder of a light ray projector, a plurality of objects represented on said plate and arranged in parallel vertical and horizontal rows, an opaque slidably mounted bar arranged for slidable movement in rear of each of said horizontal rows of objects and extending across the full length of said horizontal row, each of said bars being provided with an opening for registering successively with the objects in said horizontal rows, means for mounting said bars in said frame, said means including a coil spring attached to one end of said frame and normally urging said bars in one direction, and means associated with said frame for permitting step-by-step movement of said bars by the action of said coil spring, said last mentioned means including a series of spaced stops arranged on said bars and pivoted levers carried by said frame for successive engagements with said stops.

6. A device of the character described, comprising a transparent plate, a frame within which said plate is mounted adapted to be held in the slide holder of a light ray projector, a plurality of objects represented on said plate and arranged in parallel vertical and horizontal rows, an opaque slidably mounted bar arranged for slidable movement in rear of each of said horizontal rows of objects, each of said bars being provided with an opening for registering successively with the objects in said horizontal rows, means for mounting said bars in said frame, said means including a coil spring attached to one end of said frame and normally urging said bars in one direction, and means associated with said frame for permitting step-by-step movement of said bars by the action of said coil spring, said last mentioned means including a series of spaced stops arranged on said bars and pivoted levers carried by said frame for successive engagements with said stops, said pivoted levers being arranged so as to be normally moved by its own weight to engage said stops and to permit movement of said slidable bars one step at a time when released from engagement with one of said stops and to automatically engage the next succeeding stop.

7. A device of the character described, comprising a transparent plate, a carrier for said plate adapted to be held in the slide holder of a light ray projector, a plurality of characters represented on said plate arranged in parallel vertical and horizontal rows, a frame section within said carrier adapted for receiving in operative position said plate, a plurality of opaque bars mounted in said frame section for movement relative thereto, said bars being arranged parallel to and directly in rear of each horizontal row of characters provided on said plate, an opening provided in each of said bars for registering successively with the characters in said horizontal row, means for moving said bars, said means including a coil spring, one end of which is attached to one end of the bar and the other end of which is attached to the carrier, said spring normally urging said bars in one direction, means for holding said bars against movement by said spring, said means including a zig zag opening formed in said bars and providing a plurality of spaced stops, means including pivoted levers for successively engaging said stops and for holding said bars to any position to which they have been moved by said coil spring, whereby the proper actuation of said pivoted levers will permit the projection of the desired arrangement of characters on a screen.

WILLIAM J. ELLINSON.