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TACHISTOSCOPE

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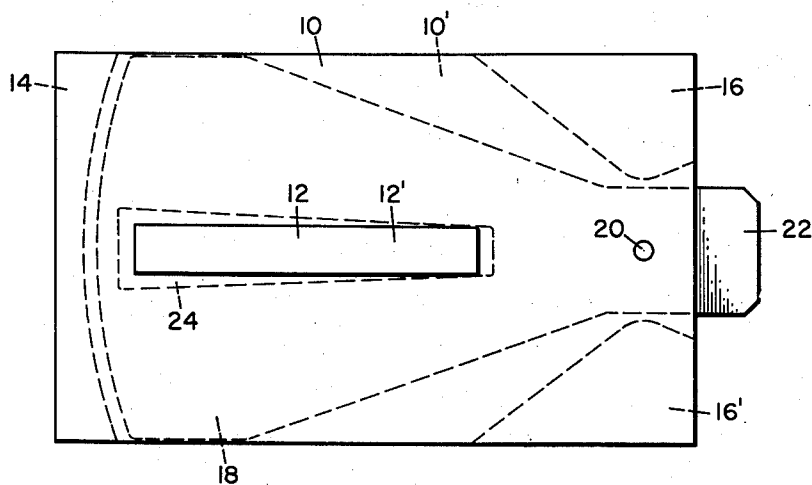
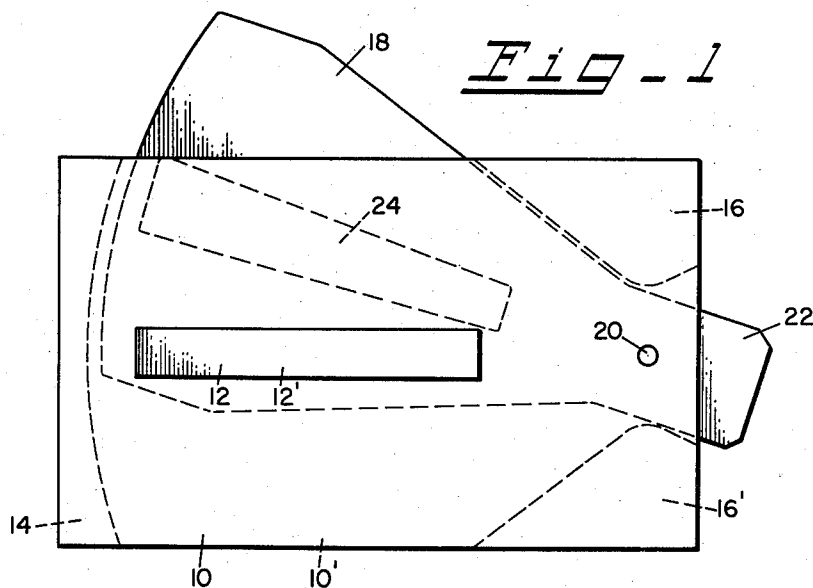


Fig - 2

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TACHISTOSCOPE

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The present invention relates to tachistoscopes or flash reading devices.

Various devices have been developed to improve a person's speed in reading and in recognizing objects. One class of such devices has means for exposing an object, or printed or written matter, to view for a very short and perhaps predetermined length of time. The user learns to recognize words and phrases on very brief, virtually instantaneous viewing, and in this manner increases his speed of reading.

A disadvantage of most tachistoscopes is their complexity. These devices are generally cumbersome and not readily portable. Such devices are useful by groups but are not convenient for individual use.

An object of the present invention is to provide a small, compact tachistoscope that may be used by an individual.

Another object of the present invention is to provide a tachistoscope, flash reading device, or shutter, of simple construction.

These and other objects will be apparent from the specification.

According to the present invention, there is provided a small, compact device that can be held in the hand of the user and used for viewing printed or written matter for brief, substantially instantaneous periods of time. The device of the present invention is simple and inexpensive.

In the drawings:

Fig. 1 is a plan view showing a tachistoscope according to the present invention with the openings in the movable and fixed members of the device out of alignment; and

Fig. 2 is a similar view showing the same device with the openings in alignment.

In a preferred embodiment of the present invention, a flat, rectangular plate member 10 made of a rigid plastic material, plywood, sheet metal, cardboard, or other suitable material, has a long, narrow, window or rectangular opening 12 therein, as shown, preferably midway between the upper and lower edges of the plate 10. This opening runs lengthwise with respect to the rectangular member 10 and has a width several times greater than its height. A bottom plate 10' identical to the top plate 10, is located under the plate 10 and has a window 12' therein coinciding with the window 12 of the top plate 10. The two flat plates 10—10' are held in spaced-apart relationship by means of a spacer 14 and a pair of limit stops 16—16'.

Mounted between the two fixed plates 10—10' and in movable relationship thereto is a thin, generally fan-shaped plate 18, made of a rigid plastic, plywood, sheet metal, cardboard, or the like. Preferably, both of the stationary plates 10—10' and the movable plate 18 are made of the same material. The movable plate 18 is pivotally secured to the stationary plates 10—10' by means of a pivot 20, which is located along the longitudinal axis of the plates 10—10' and of the openings 12—12' and near one pair of edges of the plates 10—10'. The pivot 20 may be a hinge, eye, rivet, or other suitable pivot mem-

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ber that will permit rapid movement with very little friction between the movable plate 18 and the stationary plates 10—10'. The movable member 18 and the fixed members 10—10' form a shutter. The movable plate 18 may have any suitable shape as, for example, the shape approximately of a sector of a circle, as shown. A handle portion 22 of the movable plate 18 extends beyond the edges of the stationary plates 10—10' adjacent the pivot 20. Preferably the movable member 18 is symmetrical with respect to an axis coincident with the longitudinal axis of the fixed plates 10—10' and of the openings 12—12' in one position of the movable member 18. The movable member 18 has a roughly rectangular opening 24 as shown, flared to be somewhat wider than the openings 12—12' at the end farthest from the pivot 20, but otherwise substantially the same size and shape as the openings 12—12' and so located as to register therewith in one position of the movable member 18, preferably when the axes of the movable member 18 and the fixed members 10—10' coincide.

Movement of the movable member 18 is effected by hand. The tachistoscope is held in the left hand, while the right hand grasps the upper edge of the plates 10—10' and the lower edge of the handle 22 and pushes the handle 22 upward from the position shown in Fig. 1 to the opposite position in which the movable plate 18 contacts the lower stop 16'. In a similar manner the movable plate 18 is pivotally returned to the position shown in Fig. 1. During each movement of the plate 18, in either direction, it passes through the middle position shown in Fig. 2 in which the opening 24 registers with the openings 12—12', momentarily exposing to view anything located behind the windows 12—12'. As the movable member 18 is light and mounted for substantially frictionless movement with respect to the stationary plates 10—10', a light touch of the finger to the handle 22 causes rapid movement of the movable member 18 from one limit of its travel to the other. The limits of travel of the movable member 18 are fixed by the spacers 16—16', which also serve as limit stops. Each of the limit stops 16—16' may have one edge that coincides with an edge of the movable member 18 in one extreme position thereof, although this is not necessary.

In operation according to the present invention the device is held in the user's left hand with the handle 22 adjacent the right hand of the user. A left-handed user holds the device in his right hand with the handle 22 adjacent his left hand. A card, paper, or other object having matter thereon to be viewed through the windows 12—12' is held by the user behind the bottom plate 10'. The card and the tachistoscope may be held easily by the hand of the user that is not required for operation of the handle 22. If desired, the device may be held tightly in the region of the spacer 14, although it is sufficient merely to rest the device comfortably in the hand. Rapid rotation of the movable member 18 from one limit of travel to the other is effected by the thumb and forefinger of the user's other hand.

In all positions of the movable member 18, except the position midway between the two limit stops 16—16', the openings 12—12' in the fixed members 10—10' are covered either partially or completely by the movable member 18. When the movable member 18 is in its central position, the opening 24 therein registers with the openings 12—12' permitting the user to view the portion of the card directly behind the openings or windows 12—12'. As the openings 12, 12', and 24 extend only a short distance circumferentially with respect to the pivot 20 while extending a considerable distance radially, the matter on the viewing card is exposed for only a brief interval of time while the movable member 18 is moved from one limit position to the other.

Various modifications of the device according to the present invention may be made without departing from the essentials thereof. For example, the top plate 10 may be omitted so that the device has a single fixed plate 10', with the movable plate 18 on top thereof. This construction makes possible a saving of material compared to the embodiment of the invention described above, although it has the disadvantage that the user's left hand may interfere with movement of the movable member 18 if it is permitted to rest on any substantial portion of the device.

It is advantageous to locate the openings 12—12' along the longitudinal axis of the device as is shown in the drawings, but with only a small distance between the edge of the opening and the left edge of the device and an appreciable distance between the opening and the right edge of the device. Thus the entire opening is at an appreciable radial distance from the pivot. Since no portions of the openings 12—12' are close to the pivot 20, unduly long exposure of these portions of the openings 12—12' nearest to the pivot 20 is avoided. The flared shape of the opening 24 in the movable member 18 also helps to provide substantially equal exposure time over the length of the openings 12—12'. It is understood that the openings 12—12' may be located elsewhere, but they preferably should be horizontal when the device is held in the hands of the user with the handle 22 adjacent his right or left hand. The openings 12—12' can be located along the longitudinal axes of the fixed plates 10—10' midway between the left and right edges thereof. This symmetrical location of openings 12—12' has the advantage that either left-handed or right-handed users may use the same set of cards with the device. The fixed openings or windows 12—12' and the movable opening 24 preferably should be long and narrow as in the drawing, but may have any desired shape. Further alterations and embodiments of the present invention may be made without departing from the spirit of the invention.

What is claimed is:

1. A manually operable tachistoscope comprising: a fixed plate having an opening therein; a movable plate connected to said fixed plate at a pivot point adjacent an edge of said fixed plate and so mounted as to permit substantially unopposed manual pivotal movement of said movable plate with respect to said fixed plate; said movable plate having an opening on one side of said pivot point and a lever handle portion on the opposite side of said pivot point; means for limiting the movement of said movable plate between two limit positions; said openings being so located, at a substantial distance from said pivot point, and so shaped, as to provide an opening through said tachistoscope when said movable plate is in a position approximately midway between its limit positions; said movable plate completely covering said opening in said fixed plate when said movable plate is in each limit position; so constructed and arranged that with said movable plate in either limit position said lever handle portion can conveniently be pressed directly by hand to provide rapid movement of said movable plate to the other limit position and, approximately midway in said movement, to expose to momentary view, usable for rapid recognition practice, anything located behind said opening in said fixed plate.

2. A manually operable tachistoscope comprising: a fixed plate having an opening therein; a movable plate

comprising a single member connected to said fixed plate at a pivot point adjacent an edge of said fixed plate and so mounted, parallel to said fixed plate, as to permit substantially unopposed manual pivotal movement of said movable plate with respect to said fixed plate; said movable plate having an opening on one side of said pivot point and a lever handle portion protruding beyond the adjacent edge of said fixed plate on the opposite side of said pivot point; means fixedly connected to said fixed plate for limiting the movement of said movable plate between two limit positions; said openings being so located, at a substantial distance from said pivot point, and so shaped, as to provide an opening through said tachistoscope when said movable plate is in a position approximately midway between its limit positions; said movable plate completely covering said opening in said fixed plate when said movable plate is in each limit position; so constructed and arranged that with said movable plate in either limit position said lever handle portion can conveniently be pressed directly by hand to provide rapid movement of said movable plate to the other limit position and, approximately midway in said movement, to expose to momentary view, usable for rapid recognition practice, anything located behind said opening in said fixed plate.

3. A manually operable tachistoscope comprising: a pair of fixed plates fixedly secured in parallel, registering, closely spaced relationship to each other; each said plate having an opening therein substantially in registry with the opening in the other said plate; a movable plate connected to said pair of fixed plates at a pivot point adjacent an edge of said pair of fixed plates and so mounted therebetween as to permit substantially unopposed manual pivotal movement of said movable plate with respect to said pair of fixed plates; said movable plate having an opening on one side of said pivot point and a lever handle portion protruding beyond the adjacent edge of said pair of fixed plates on the opposite side of said pivot point; means between said fixed plates for limiting the movement of said movable plate between two limit positions; said openings being so located, at a substantial distance from said pivot point, and so shaped, as to provide an opening through said tachistoscope when said movable plate is in a position approximately midway between its limit positions; said movable plate completely covering said openings in said pair of fixed plates when said movable plate is in each limit position; so constructed and arranged that with said movable plate in either limit position said lever handle portion can conveniently be pressed directly by hand to provide rapid movement of said movable plate to the other limit position and, approximately midway in said movement, to expose to momentary view, usable for rapid recognition practice, anything located behind said openings in said pair of fixed plates.

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