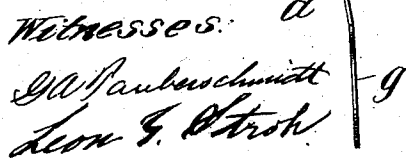
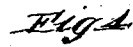


Patented June 6, 1911.

Fig. 1



Inventor:
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By *H. R. Croff* Atty

UNITED STATES PATENT OFFICE.

HARRY A. DOUGLAS, OF LA CROSSE, WISCONSIN.

STEREOSCOPE.

994,378.

Specification of Letters Patent.

Patented June 6, 1911.

Application filed April 29, 1907. Serial No. 370,822.

To all whom it may concern:

Be it known that I, HARRY A. DOUGLAS, citizen of the United States, residing at La Crosse, in the county of La Crosse and State of Wisconsin, have invented a certain new and useful Improvement in Stereoscopes, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to knock-down stereoscopes, and has for its object the provision of a stereoscope of this character which is of very simple construction and is low in cost.

The various features and advantages of my invention will fully appear by reference to the accompanying drawing, showing the preferred embodiment thereof, in which—

Figure 1 is a perspective view of the stereoscope. Fig. 2 is a sectional view on line 2 2 of Fig. 3. Fig. 3 is a longitudinal sectional view of the structure shown in Fig. 1. Fig. 4 is a view on line 4 4 of Fig. 3. Fig. 5 is a view of the left-hand portion of the structure as it appears in Fig. 3, with the relation of the parts modified.

Like parts are indicated by similar characters of reference throughout the different figures.

The shaft *a* of the stereoscope may be made of any suitable shape, but inasmuch as the entire structure, with the exception of the lens, is preferably made of metal, the shape illustrated is preferred.

In the preferred embodiment of the invention, the side edges and the edge of the free end of the shaft are desirably beaded or curled as shown in Figs. 2 and 3. The end of the shaft where the lens plate *b* is located is desirably bent down at *c*, the lower edge of the marginal portion *c* being shaped to constitute one member of a hinge, the companion member of the hinge being provided at the lower edge of the lens plate *b*, a pintle *d* uniting the members of the hinge formed in the elements *a* and *b*. When the stereoscope is taken apart for purposes of shipment and storage, the lens plate is rotated three-fourths of a revolution in a counter-clockwise direction, when the structure is viewed as presented in the drawing, so that the lens plate will lie underneath the shaft and be substantially parallel with respect thereto. Fig. 5 shows

the lens plate slightly rotated from its vertical position.

When the stereoscope is assembled, the lens plate desirably occupies the vertical position indicated in Figs. 1, 3 and 4 of the drawing, to which end a simple locking device is provided to maintain the desired relative positions of the lens plate and shaft, one member of this locking device being provided upon the lens plate, a second member being provided upon the shaft, while a third member effects a locking inter-relation of the two aforesaid members. The said first locking member desirably resides in two ears *e* struck up from the lens plate, with a sufficient space intervening between the same and the lens plate for the reception of the third locking member, the second locking member being formed by slotting the shaft at *f*, said slot registering with the space between the ears *e* and the lens plate, when the lens plate is in the right angular position shown in Figs. 1, 3 and 4. The third locking member *g* is adapted for insertion through the slot *f*, into the space between the ears *e* and the lens plate, whereby to maintain the angular relation of the lens plate and shaft illustrated in Figs. 1, 3 and 4. The locking member *g* is desirably elongated so as to afford means for grasping the same between the thumb and finger of the user, after said locking member has been inserted as far as possible through the slot *f*, whereby said locking member has the added function of a finger-hold. When it is desired to rotate the lens plate in a counter-clockwise direction for purpose of shipment or storage, the locking member *g* is withdrawn as indicated in Fig. 5, whereupon the lens plate may be rotated in the direction stated.

The card-holder *h* is of novel construction, the upright portion that holds the card, the clips *i* that coöperate with the upright portion in holding the card, and the element *k* of the card-holder that effects engagement thereof with the shaft, being formed out of one integral piece of metal. The finger-hold *l* that may be grasped to move the card-holder along the shaft, is also desirably formed out of the same piece of metal with the elements *h*, *i* and *k*, being struck downwardly from a strap *m* depressed from the body portion *k*. Two riding portions *n*, *n* are left of the part of the body

element *k* from which the strap *m* is struck, the parts *n*, *n* engaging the upper side of the stereoscope shaft while the part *m* engages the lower side of the stereoscope shaft. The parts *n*, *n* are desirably fluted so as to engage the correspondingly shaped marginal portions of the shaft.

It will be observed that the portion *k* is formed of the same sheet of metal with the portion *h* and angularly disposed with respect to the latter portion and is so shaped as to engage the shaft and be directed thereby in its movement. It will be observed that the clips *i* are substantially parallel in direction with the vertically disposed or upright card prop portion *h*, rather than being disposed at right-angles to this prop, and that the said prop extends transversely across the shaft. By reason of my disposition of these clips, cards of any length may be held by the card holder. This construction is of advantage particularly where it is desired to make the stereoscope of as small dimensions as practical for purpose of shipment and cheapness in construction. The card holder guide *k* is disposed in a plane substantially parallel with the plane of the shaft.

It will be seen that I have provided a stereoscope including a card holder provided with card-receiving space that is unobstructed in a direction transverse to the shaft.

While I have permanently hinged the lens plate and shaft together, I do not wish to be limited to this feature of construction.

It is obvious that many changes may be made in the preferred embodiment of my invention herein shown and particularly described, without departing from the spirit thereof, and I do not, therefore, wish to be limited to the precise construction shown, but,

Having thus described my invention, I claim as new and desire to secure by Letters-Patent the following:—

1. A stereoscope including a shaft and lens plate hinged together, and locking means for holding the shaft and lens plate in fixed relation, said locking means including a thumb and finger hold in its formation, whereby the stereoscope may be readily held.

2. A stereoscope including a shaft and a lens plate movable with respect to the shaft, and means for locking the shaft and lens plate together, said locking means including a thumb and finger hold in its formation, whereby the stereoscope may be readily held.

3. A stereoscope including a lens plate, a shaft hinged to the lens plate and slotted near where the lens plate is located, and a locking device including one member provided upon the lens plate, and a member adapted to pass through the slot in the shaft

into coöperative relation with the locking member upon the lens plate to secure the lens plate and shaft in fixed relation.

4. A stereoscope including a lens plate, a shaft slotted near where the lens plate is located, and a locking device including one member provided upon the lens plate, and a member adapted to pass through the slot in the shaft into coöperative relation with the locking member upon the lens plate to secure the lens plate and shaft in fixed relation.

5. A stereoscope including as two members a shaft and lens plate hinged together, and a locking element in separable engagement with the aforesaid elements of the stereoscope.

6. A stereoscope including as two members a shaft and lens plate movable with respect to each other, and a locking element in separable engagement with the aforesaid elements of the stereoscope.

7. A stereoscope including its shaft, a card holder including an upright prop portion extending transversely across the shaft, and a card holder guide extending angularly from the prop portion in a plane substantially parallel with the shaft plane and shaped to engage the shaft.

8. A stereoscope including its shaft, a card holder including an upright prop portion extending transversely across the shaft, and a card holder guide extending angularly from the prop portion in a plane substantially parallel with the shaft plane and shaped to engage the shaft, said prop and guide being formed of the same integral sheet of metal.

9. A stereoscope including its shaft, a card holder including an upright prop portion extending transversely across the shaft, and a clip construction *i* affording card-holding space transversely disposed with respect to the shaft, the card holder and clip construction being formed out of the same integral sheet of metal.

10. A stereoscope including a lens plate, a shaft hinged to the lens plate and slotted near where the lens plate is located, and a locking device including one member provided upon the lens plate, and a member adapted to pass through the slot in the shaft into coöperative relation with the locking member upon the lens plate to secure the lens plate and shaft in fixed relation, said locking element including a thumb and finger hold portion.

11. A stereoscope including a lens plate, a shaft slotted near where the lens plate is located, and a locking device including one member provided upon the lens plate, and a member adapted to pass through the slot in the shaft into coöperative relation with the locking member upon the lens plate to secure the lens plate and shaft in fixed relation.

tion, said locking element including a thumb and finger hold portion.

12. A stereoscope including as two members a shaft and lens plate hinged together, and a locking element in separable engagement with the aforesaid elements of the stereoscope, said locking element including a thumb and finger hold portion.

13. A stereoscope including as two members a shaft and lens plate movable with respect to each other, and a locking element

in separable engagement with the aforesaid elements of the stereoscope, said locking element including a thumb and finger hold portion.

In witness whereof, I hereunto subscribe my name this 18th day of April A. D., 1907.

HARRY A. DOUGLAS.

Witnesses:

E. P. GLEASON,
C. S. CONE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."