J. STEENSON.

READING APPARATUS.

APPLICATION FILED AUG. 21, 1912.

1,067,772. **Patented July 15, 1913.**

Fig. 1.

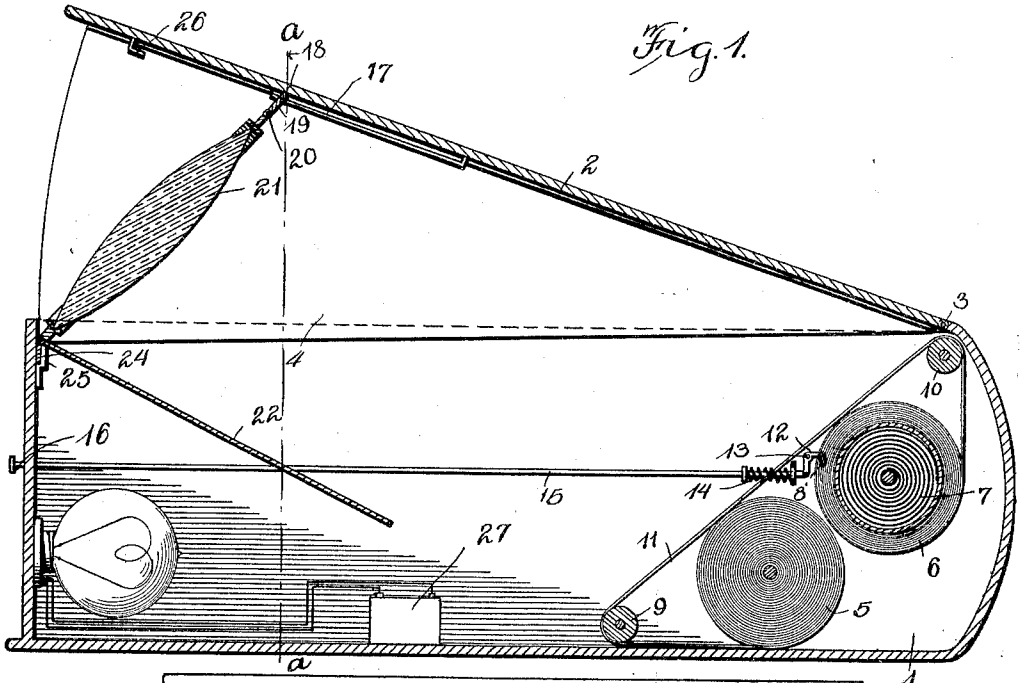
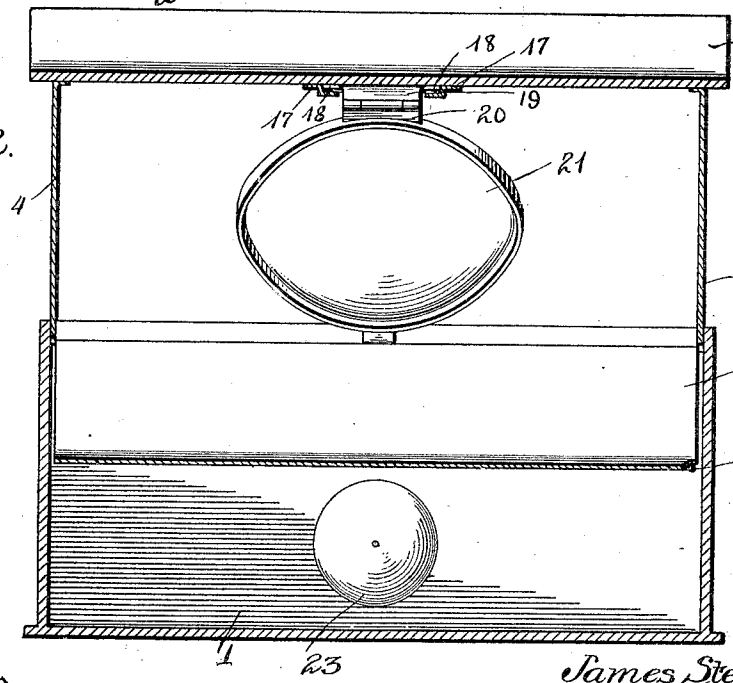


Fig. 2.



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READING APPARATUS.

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To all whom it may concern:

Be it known that I, JAMES STEENSON, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented new and useful Improvements in Reading Apparatus, of which the following is a specification.

This invention is an improved reading apparatus, especially adapted for use by lecturers, clergymen and others, in reading and delivering lectures, sermons, and the like, the object of the invention being to provide an improved apparatus of this kind in which the manuscript is placed and which serves to illuminate and magnify the manuscript, as well as to feed the manuscript so as to enable the manuscript to be readily read.

In the accompanying drawing:—Figure 1 is a vertical longitudinal sectional view of a reading apparatus constructed in accordance with my invention. Fig. 2 is a detail transverse sectional view of the same on the plane indicated by the line *a*—*a* of Fig. 1.

In the embodiment of my invention, I provide a suitable case 1 which may be made of any suitable material, sheet metal or the like and is preferably covered with leather or other such material and is of a form and size resembling a book. The upper side of the case is open and a cover 2 is provided for the open upper side of the case, the said cover being hinged at one end as at 3 and being provided with triangular sides 4 which are arranged on the inner sides of opposite side walls of the case. Hence, the cover with its triangular sides constitutes what is in effect a hood which may be raised and lowered.

A pair of manuscript carrying rollers 5—6 are mounted transversely in the case at points near one end thereof, the roller 6 being in a higher plane than the roller 5. The upper roller 6 is provided with an interiorly arranged coiled spring 7 to turn said roller in one direction, indicated by the arrow in Fig. 1 and the said roller is provided in one side, at one end, with a detent notch 8. A pair of direction rollers 9—10 are also provided which are mounted in the casing, one to one side of the roller 5 and the other above the roller 10. The manuscript is in a long roll or strip, indicated at 11, is attached at its ends to the rollers 5—6 and also engages the rollers 9—10 so that a portion of the manuscript is stretched between the said rollers 9—10 and is arranged at an angle of about forty-five degrees with respect to the bottom case, that portion of the manuscript which is stretched between the rollers 9—10 being visible when the hood is raised. The parts are so proportioned that one revolution of the rollers 5—6 unwinds from the roller 5 and winds upon the roller 6 a portion of the manuscript corresponding in length to the space between the rollers 9—10.

A locking dog 12 is provided which is pivotally mounted as at 13, is adapted to engage the notch 8 of the roller 6 and is normally held in engaged position by a spring 14. A rod 15 is connected to the said locking dog, passes through the front end of the case and is provided at its outer end with a head or button 16. Assuming that the spring 7 has been properly wound, when the rod 15 is moved inwardly by pressing on the button 16, the dog 12 disengages the notch 8 and thereupon the roller 6 is revolved through one revolution by this spring 7, causing the said roller to partly wind the manuscript and the roller 5 to partly unwind the manuscript with the result that a new portion of the manuscript is exposed for reading between the rollers 9—10, the dog by the action of the spring 14 reëngaging the notch 8 as soon as one rotation of the roller 6 has been completed and, hence, holding the rollers and therefore also the manuscript until the exposed portion of the manuscript has been read. The reader then again operates the press button thus causing another portion of the manuscript to be exposed for reading.

On the under side of the hood or cover 2 at a suitable distance from the front end thereof are a pair of guide flanges 17 which are arranged longitudinally and are appropriately spaced apart. These guide flanges are connected by projections 18 on the ends of one leaf 19 of a hinge 20, the other leaf of the hinge being connected to the rim of a lens 21. Hence, the lens is suspended from the hood, pivotally connected thereto and also connected thereto for longitudinal movement so that when the hood has been raised the lens can be adjusted at the required angle for reading, the lower side of the rim of the lens being adapted to be engaged in the angle between one end wall of the case and an inclined shield 22 which is arranged above an electric lamp or other

suitable lamp 23. This shield 22 has a depending flange 24 at its higher end which may be engaged with a supporting flange 25 which is secured on the inner side of the front wall of the case. Hence, the shield may be detached when desired. When the hood is to be closed, the free end of the rim or mounting of the lens may be engaged with a supporting hook 26 with which the hood is provided.

When the device is to be used, the hood is raised, the lens adjusted, and the electric current turned on. The rays of the electric lamp strongly illuminate the inclined exposed portion of the manuscript and the rays of light are deflected therefrom outwardly and upwardly through the lens 21, which is arranged facing the lecturer or clergyman. Hence, he can readily see and read the manuscript owing to its being so strongly illuminated and this is greatly facilitated by the magnifying action of the lens. The case is light-proof excepting at the point where the lens is located so that no light escapes from the case except through the lens. When the hood is closed, the device presents the appearance of a book.

In practice, the electric lamp may be supplied with current by suitable conductors from any electric plant or a battery to supply the lamp with current may be arranged in the casing as indicated diagrammatically at 27.

I claim:—

1. A reading apparatus of the class described embodying a case, manuscript carrying and displaying rollers mounted in the case, a lamp to illuminate the displayed portion of the manuscript, a hood pivotally mounted on the case and a lens having a flexible supporting element at its upper side connected to the under side of the hood for longitudinal movement under the latter, so that the lens can be adjusted longitudinally of the hood and to any required angle, the case having supporting means for engagement by the lower side of the lens, to enable the latter to support the hood in open position and the hood being also provided with supporting means for the lower side of the lens when the latter is under the hood and the hood is closed.

2. A reading apparatus of the class described embodying a case, manuscript carrying and display rollers mounted in one end of the case, a hood pivotally mounted on the end of the case in which the rollers are located, a lamp in the opposite end of the case, a supporting flange above the lamp, a shield also above the lamp and engaging with and supported by said flange, the lamp being below the upper edge of the case, and a lens pivotally and adjustably connected at its upper side to the hood, the lower side of the lens being adapted to be supported against the flange wall of the case and above the shield when the hood is open, the lens serving as a support for said hood.

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

JAMES STEENSON.

Witnesses:
J. G. STEENSON,
MARY B. STEENSON.

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