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F. GIESE

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READING DEVICE FOR A BOOK

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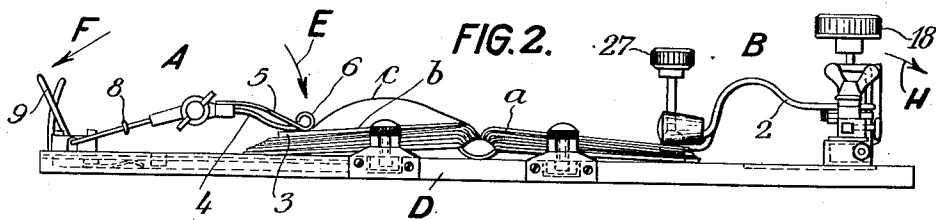
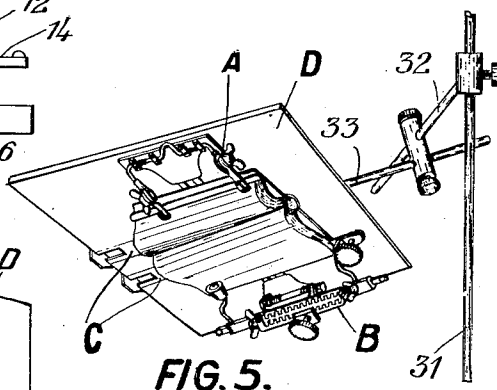
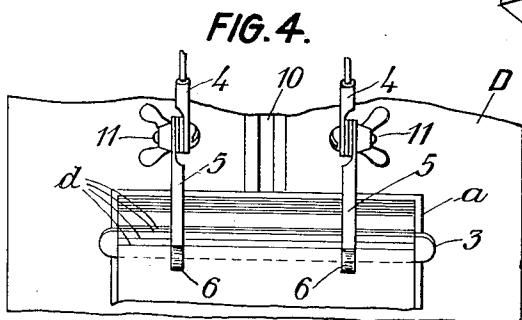
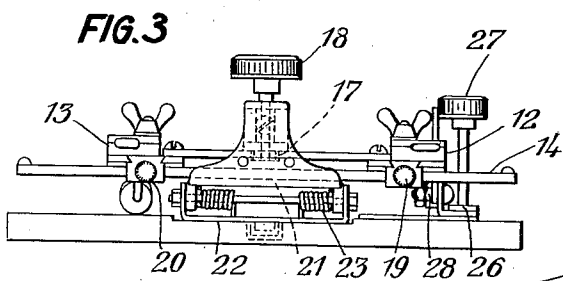
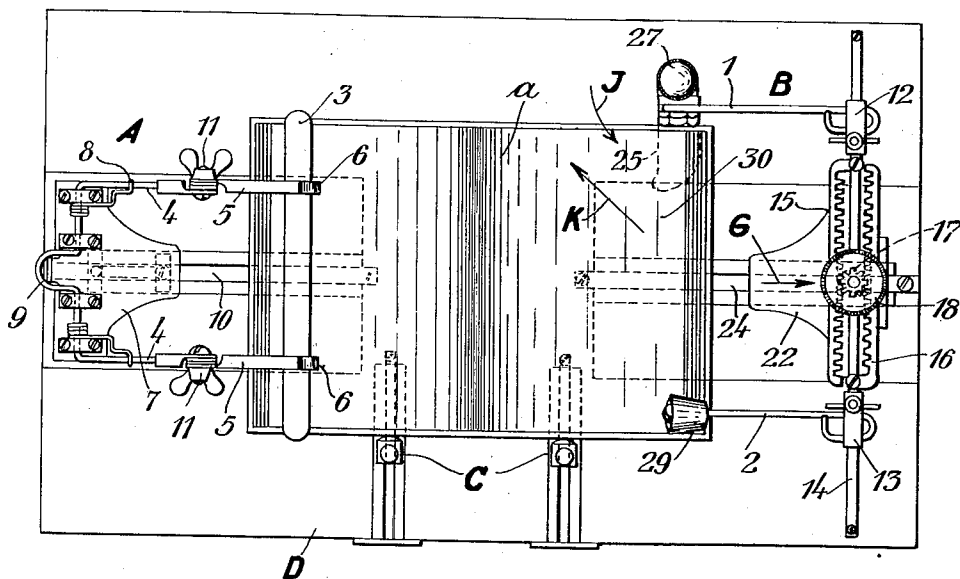


FIG. 1.



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UNITED STATES PATENT OFFICE

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READING DEVICE FOR A BOOK

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Reading devices for books are known, in which base holding members, extending over the lower part of the book in the direction of the back of the book, are intended to hold the separate leaves of the book. Also devices are known, in which these holding members are made to hold the leaves of the book from a lateral direction. Further, fixed supporting members upon such base members for reading devices for the lower edge of the book have already been suggested. All these devices, partly by themselves, partly in combination, embody the disadvantage, that for the purpose of turning over the leaves of the book some of these holding members have to be removed and that, above all, the reading device renders possible only a reading of the book whilst the base plate is in an essentially vertical position and that the holding members, moreover, are incapable of firmly holding down a book even of medium size upon the base plate, when the base plate with its supports is held in a downward direction, as this will be necessary for the purpose of reading a book while in a horizontal or recumbent position. The reading devices at present in use further require absolutely the use of both hands for turning over the leaves, with the result, that the reading devices cannot be used by one-armed persons or by persons with an injured arm or hand. Even the manipulation of this device by means of both hands while the reading person is in a horizontal or recumbent position is a matter of some considerable difficulty and may easily cause the leaves of the book to be damaged.

The object of the present invention is to provide a reading device for securely holding the book in any position on the base plate and allowing of turning over the leaves of the book with one hand without risk of damaging the leaves; in addition thereto it may be most conveniently adjusted to any book size.

The invention is clearly illustrated in the accompanying drawing, in which:

Fig. 1 is a top view of the main part of

the reading device with a book held in position thereon.

Fig. 2 is a front view of the same,

Fig. 3 is a side view of a separate part,

Fig. 4 is a top view of one part of the device, whilst

Fig. 5 is a perspective view of the device.

The reading device essentially consists of a holding member A, a holding member B and supporting members C, capable, is necessary, of being displaced in a direction parallel to the back of the book, and of being adjusted, they are mounted upon a base plate D. In accordance with the present invention the one holding member B is provided with independent holding arms 1, 2 which may be displaced in relation to each other, while the other holding member A is equipped, in addition to a holding bar 3, being held by arms 4, with special holding tongues 5 for the purpose of accumulating a few turned-over leaves of a book *a*. For this purpose the outer end of the holding tongues has been rounded off in the form of a curve 6. The arms 4 of the holding bar 3 are rotatably mounted upon the slide 7 and rest under the action of springs 8 having the tendency to press the holding bar 3 always in the direction of the arrow E upon the book *a*, thereby securely holding the leaves of the book, as well as the latter itself. A handle 9 has been provided capable of being moved in the direction of the arrow F for keeping the holding bar away from the leaves of the book. At *b* and *c* two separate leaves of the book *a* have been shown in Fig. 2. The leaf *b* shows how it is kept by the holding tongues 5 between the latter and the holding bar 3. The leaf *c* indicates the moment, where such leaf is just being slid in between the holding tongues and the holding bar. In Fig. 4 it has been illustrated, how a plurality of separate leaves *d* of a book *a* accumulate between the holding tongues 5 and the holding bar 3. This accumulation of the separate, turned-over leaves yields the great advantage, that it will not be required any longer to lift up the holding bar for the purpose of holding tight these leaves, but rather to firmly press it against the base

plate during this time. The slide 7 may be mounted in any desired manner, for instance, upon a bar 10 along which it may be displaced. The arms 4 may be suitably articulated, by means of joints 11 capable of being clamped. As a consequence thereof, the range of these arms has been rendered adjustable within comparatively wide limits and the holding bar 3 may be adapted to any desired size of book.

The holding arms 1 and 2 have each appropriately been equipped with a slide 12, 13, capable of being adjusted in a longitudinal direction, the slides being held in position by means of a guiding member, for instance, a bar 14. In the form shown the slides 12 and 13 are each provided with a rack for the purpose of changing the distance between the two holding arms 1 and 2. A toothed wheel 17 is fitted with and actuated by means of a handle 18 and engages the racks 15 and 16, with the result that by turning the handle the distance between the two holding arms may be adapted to the height of the book being held in the reading device at the time. By means of clamping screws 19, 20, the holding arms 1 and 2 may be clamped on the bar 14. The bar 14 together with the toothed wheel 17 and handle 18 is rotatably mounted in a slide 22 by means of a stirrup 21 or the like and springs 23 are provided possessing the tendency of pressing the holding arms 1 and 2 against the book *a*. However, by exercising pressure upon the handle 18 in the direction of the arrow G it will be possible without any trouble whatsoever, to swing the handle in the direction of the arrow H, whereby the holding arms are lifted off the book. Analogous to the slide 7, the slide 22 may be displaced and adjusted along a guiding member, for instance, a bar 24.

At the end of the holding arm 1 a knife-shaped part 25 is mounted capable of being rotated and swung about. The rotary bearing is indicated at 26. The knife-shaped part is connected with a handle 27 rendering it possible to swing it in the direction of the arrow J between the leaves of a book. In connection therewith the knife-shaped part may be made by means of a swivel bearing, which has been indicated at 28, to simultaneously adjust itself upon the surface of the leaves of the book and to adapt itself thereto, so as to effectively prevent the leaves of the book being damaged. This knife-shaped part is intended for holding down the main part of the leaves still unread on the base plate, with the exception of a few sheets resting on top of it, on account of which they may easily be turned over with the aid of one hand.

At the end of the holding arm 2 a roller 29 of suitable conical shape, made of metal, or most preferably of ebonite or the like has

been attached. This roller permits, on turning over the leaves, to pull out one leaf of the book from under the roller without damaging the leaf in any way. On the other hand, the roller holds down the leaves of the book and simultaneously the book itself, upon the base plate.

The *modus operandi* of the device is as follows:

For the purpose of turning over the leaves merely one leaf of the book is seized with one hand, for instance, at the point 30 and moved approximately in the direction of the arrow K, whereby the corner of the leaf may easily be removed from under the roller 29. The leaf is now turned over and pushed under the holding tongue 5. As soon as a fair number of leaves have accumulated under the holding tongues 5, the holding tongues are slightly lifted up by exercising pressure upon the handle 9 in the direction of the arrow F, thereby causing the turned-over and accumulated leaves to pass below the holding bar, being gripped again by the latter immediately upon releasing the handle 9.

It has been illustrated in Fig. 5, in which way the base plate may be held downwards together with the book for reading in a recumbent position by means of any desired arrangement, for instance, by bars 31, 32, 33 and from what has been said in the foregoing it will easily be gathered, that in spite of the position of the book the latter itself and also the separate leaves will be effectively held tight, simultaneously rendering possible a turning over of the leaves with the aid of one hand.

I claim:

1. A reading table comprising in combination a plate, adjustable supporting means on the lower edge of the plate for the book to be placed on the plate, holding means on both lateral parts of the plate displaceable in the direction towards the back of the open book, the said holding means on the side of the plate for the leaves of the book not yet turned over including a specially constructed arrangement which engages only the right lower corner of the uppermost leaf, the specially constructed arrangement including a roll and an elastic support for the roll.

2. A reading table comprising in combination a plate, adjustable supporting means on the lower edge of the plate for the book to be placed on the plate, holding means on both lateral parts of the plate displaceable in the direction towards the back of the open book, the holding means of the side of the plate for the leaves of the book not yet turned over including a specially constructed arrangement which engages only the right lower corner of the uppermost leaf, the specially constructed arrangement consisting of

a roll and an elastic support for the roll, a knife-shaped member arranged near the right upper corners of the same leaves, the said knife member entering in between the leaves of the book and pressing the leaves below against the plate while leaving free the leaves of the book positioned above it.

3. A reading device, consisting in combination of a base plate, holding means disposed upon one side of the base plate and capable of displacement in the direction of the book, an elastic holding member on the other side of the base plate for pressing the leaves of the other side of the open book against the base plate, a further elastic holding member on the last-mentioned side of the base plate, a knife-shaped part at the end of this latter holding member slipping in between the leaves of the book and pressing the leaves below it against the base

plate but on the other hand leaving free the leaves of the book resting upon the knife-shaped part, a bar disposed perpendicularly to the elastic holding members, slides connected with the elastic holding members and mounted upon and displaceable along the bar, a slide displaceable in the direction of the book and supporting said bar and adjusting means for the purpose of changing the distance between said elastic holding members by displacing same along said bar.

4. A reading device as claimed in claim 3, wherein the adjusting means for changing the distance between the elastic holding members includes racks rigidly connected with the slides, a manually operable pinion engaging the racks for the purpose of adjusting the slides along the bar.

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25	90
30	95
35	100
40	105
45	110
50	115
55	120
60	125
65	130