

(No Model.)

2 Sheets—Sheet 1.

F. J. ANDERSON & W. M. IRICK.  
READING STAND.

No. 502,601.

Patented Aug. 1, 1893.

Fig. 1.

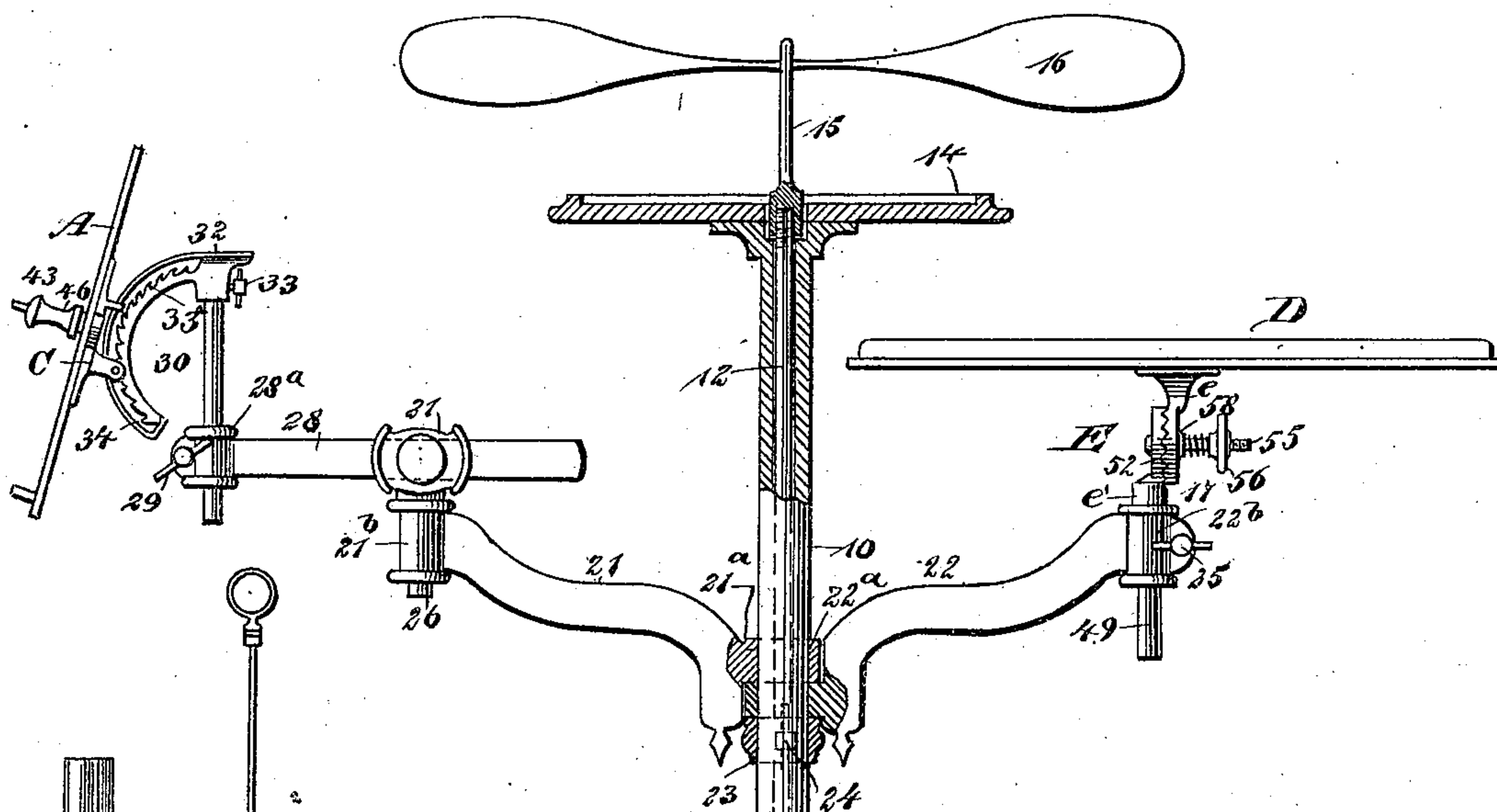


Fig. 2.

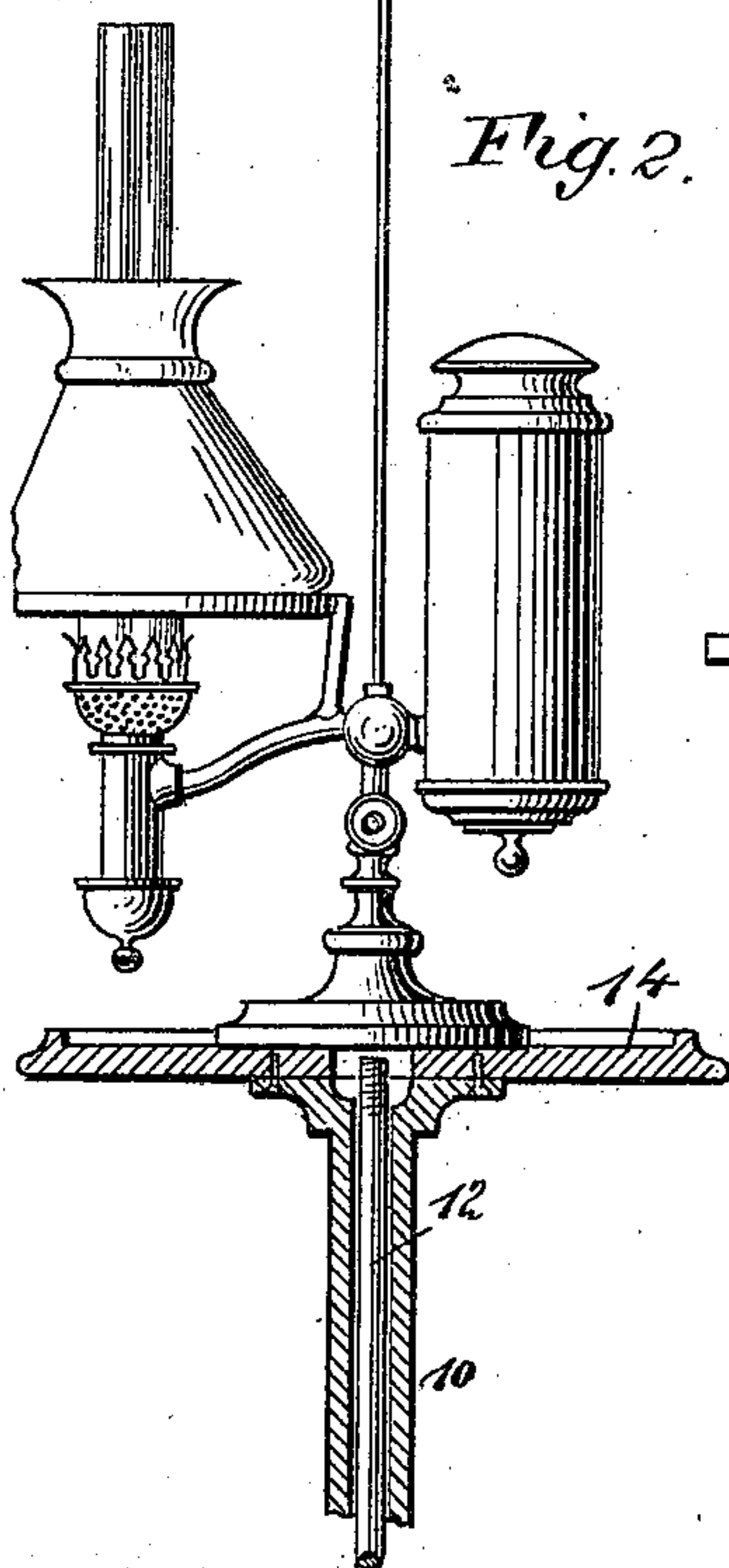


Fig. 3.

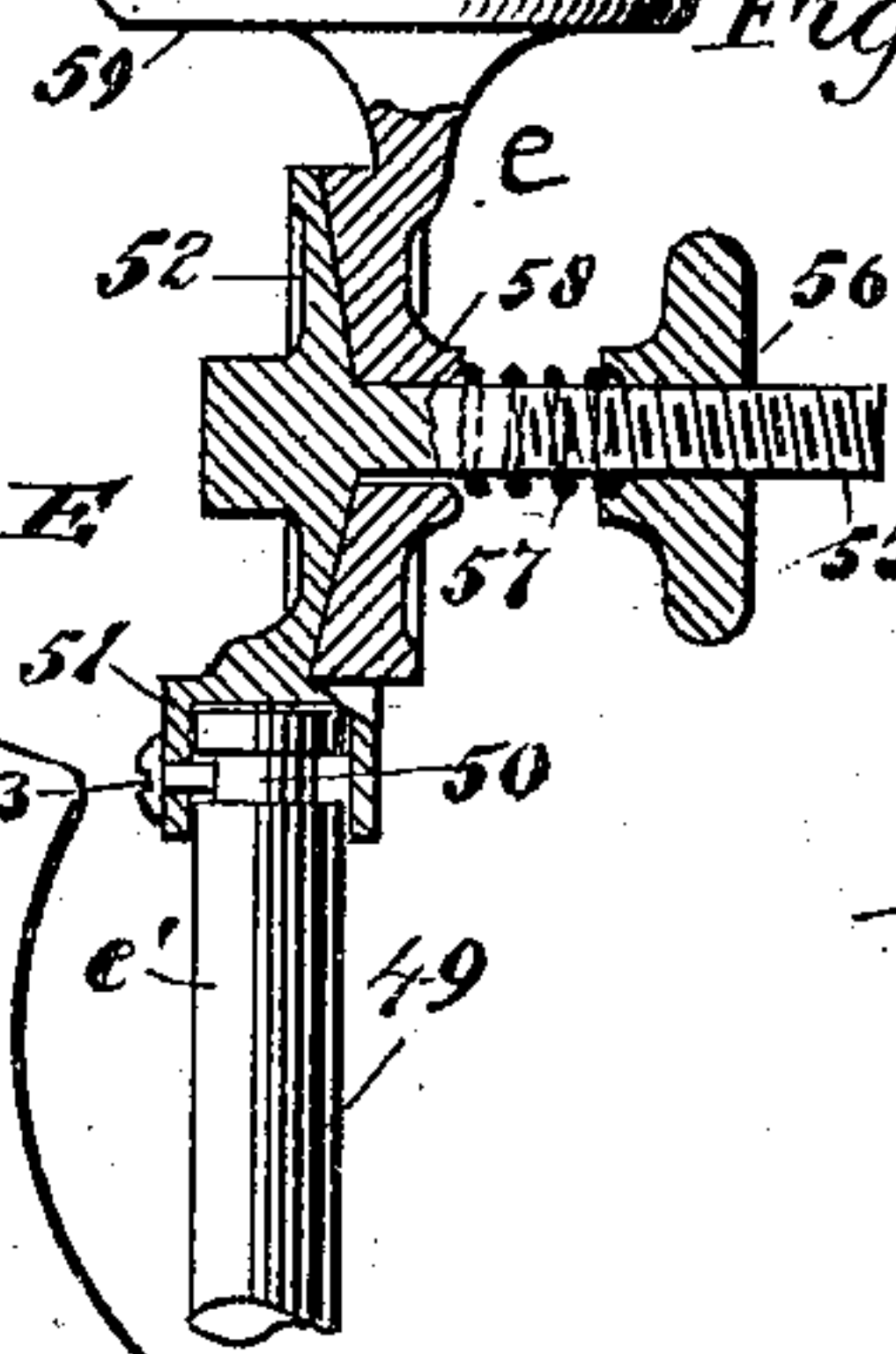
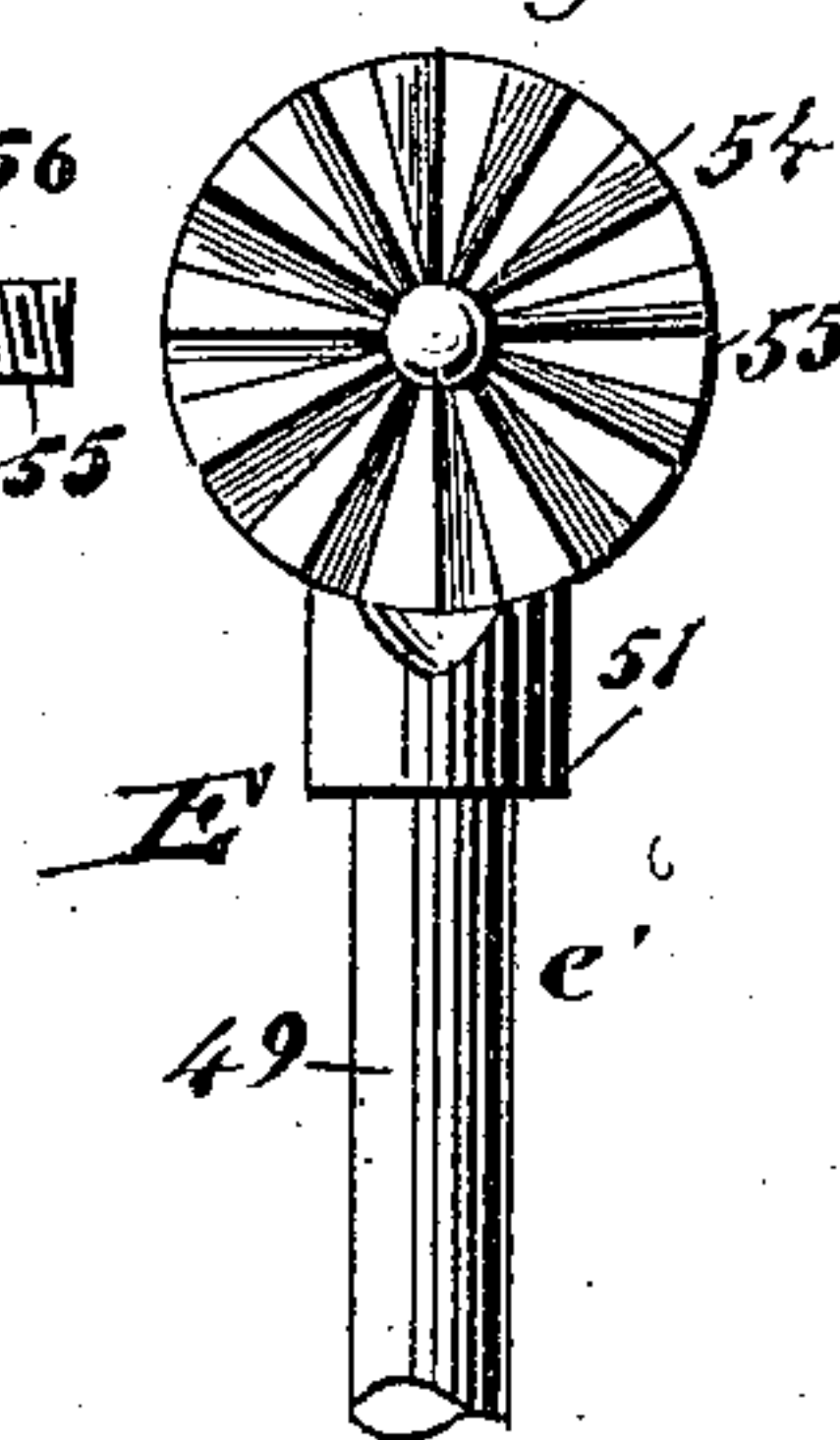


Fig. 4.



WITNESSES:

Paul Jakob  
C. Sedgwick

INVENTORS

F. J. Anderson  
W. M. Irick  
BY Munn & Co

ATTORNEYS

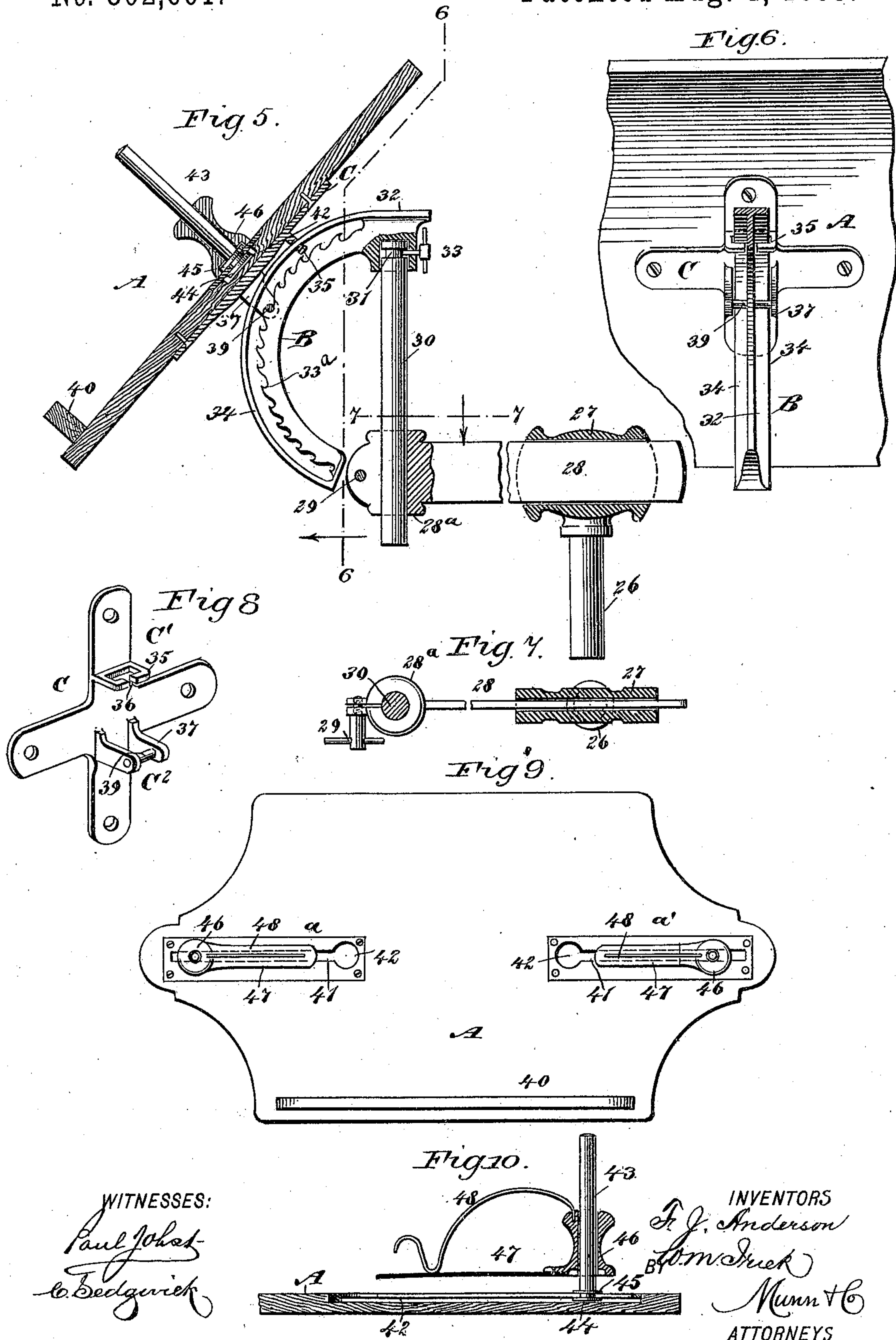
(No Model.)

2 Sheets—Sheet 2.

F. J. ANDERSON & W. M. IRICK.  
READING STAND.

No. 502,601.

Patented Aug. 1, 1893.



WITNESSES:  
*Paul Johst*  
*C. Sedgwick*

INVENTORS  
*F. J. Anderson*  
*W. M. Irick*  
BY *Munn & Co*  
ATTORNEYS



# UNITED STATES PATENT OFFICE.

FRANCIS JOHN ANDERSON AND WILLIAM MADISON IRICK, OF GAINESVILLE,  
TEXAS.

## READING-STAND.

SPECIFICATION forming part of Letters Patent No. 502,601, dated August 1, 1893.

Application filed May 26, 1892. Serial No. 434,429. (No model.)

*To all whom it may concern:*

Be it known that we, FRANCIS JOHN ANDERSON and WILLIAM MADISON IRICK, of Gainesville, in the county of Cooke and State of Texas, have invented a new and Improved Reading-Stand, of which the following is a full, clear, and exact description.

Our invention relates to an improvement in reading stands, and has for its object to provide a stand of simple, durable and economic construction, and to provide said stand with one or more desks, preferably two, one of which at least, may be adjusted in any desired manner; that is, it may be held in a horizontal position either inclined upward or downward, so that a person sitting in any position, or reclining, may be able to read from a book supported by said desk, the second desk being capable of holding a dictionary or like volume, for consultation, the second desk being also adjustable, but preferably not to the extent of the reading desk.

It is a further object of the invention to provide a means whereby both desks may be expeditiously and conveniently adjusted vertically upon the stand and located so that a reference book carried by one of the desks may be readily consulted at any time by a person using the other or reading desk, or whereby the reference book may be consulted by any other person without inconveniencing the one using the reading desk.

Another object of the invention is to construct the stand in such manner as to enable it to be used as a support for a lamp or other illuminating medium, and further, to form upon the stand a case for the reception of books, magazines, or other articles, the case being so located that it is not in the way.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth and pointed out in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a partial side elevation and partial sectional view of a stand constructed in accordance with our invention, illustrating a

fan applied thereto. Fig. 2 is a vertical section through the upper portion of the stand, illustrating the application thereto of a platform for the support of a lamp or like article. Fig. 3 is a detail sectional view of the adjusting mechanism for the desk, adapted to carry a reference book or like object. Fig. 4 is a front elevation of one of the sections of the adjusting mechanism shown in Fig. 3. Fig. 5 is a side elevation of the adjusting mechanism of the reading desk, a portion of the mechanism being in section, and the desk itself being shown in transverse section and as attached to the adjusting mechanism. Fig. 6 is a section taken practically on the line 6—6 of Fig. 5, illustrating more clearly the manner in which the adjusting mechanism is connected with the reading desk. Fig. 7 is a horizontal section taken practically on the line 7—7 of Fig. 5. Fig. 8 is a detail perspective view of the back plate of the reading desk. Fig. 9 is a plan view of the reading desk; and Fig. 10 is a partial longitudinal section through the desk.

The body of the stand may be said to consist of a tube 10, occupying a vertical position and securely mounted at its lower end in any approved form of base 11. The body of the stand is preferably provided with an interior shaft 12, which shaft extends from the top of the body through and beyond the bottom of the base, at which point it may be connected with any approved form of motor 13. At the upper end of the body of the stand a table 14, is rigidly secured, provided with an opening in its center disclosing the upper end of the shaft 12, and upon this end of the shaft the stem 15 of a fan 16, may be screwed whenever it is desired, propelled by the motor 13. When the fan is not in use it may be removed and the table may be utilized as a support for a lamp, or other object, as is shown in Fig. 2. Preferably just above the base 11 a lower table 17, is secured in any approved manner to the body tube 10, and this table is adapted for the reception of books, magazines, and other articles not in use, and to that end may be provided with a series of partitions 20, as is likewise best shown in Fig. 1. Above the table 17 two brackets designated as 21 and 22, are held to slide upon the body



tube 10, these brackets being provided at their inner ends with sockets 21<sup>a</sup> and 22<sup>a</sup> to receive the tube 10, and the sockets are so formed that the socket of one bracket may lie readily upon the socket of the other. The vertical adjustment of these brackets is accomplished through the medium of a sleeve 23, the said sleeve being mounted to slide upon the body tube 10 below the sockets of the brackets, and is held at any point in the length of the tube between its upper end and the table 17, by means of a set screw 24, or the equivalent thereof. The outer end of each bracket is provided with another socket, they being designated respectively as 22<sup>b</sup> and 21<sup>b</sup>. These sockets are constructed somewhat in the nature of clamps, as the brackets extend beyond the sockets and the extension of the brackets is split, the cut leading into the sockets, whereby the sockets may be reduced as to diameter by means of set screws 25, passed through the extension. In Fig. 1 of the drawings, however, only the right-hand socket 22<sup>b</sup> is shown constructed in this manner, while the left-hand socket 21<sup>b</sup>, is of the ordinary character, although both sockets may be controlled by set screws if in practice it is found desirable; preferably, however, the socket 21<sup>b</sup> is of the ordinary character, as the article it is to receive is to turn loosely therein. The socket 21<sup>b</sup>, receives the shank 26 of a head block 27; the head block and its shank may be properly termed a vertical bracket, as the shank 26, is adapted to enter and turn freely in the socket 21<sup>b</sup>; and the head block is provided with a longitudinal opening extending through from end to end to receive a sliding bar 28, while upon what may be termed the outer end of this sliding bar a socket 28<sup>a</sup>, is formed, split in the manner described with reference to the socket 22<sup>b</sup>, and provided with an adjusting screw 29, as is best shown in Figs. 1 and 5, and likewise in Fig. 7. The vertical bracket and the horizontal bracket 21 carrying the vertical bracket, are adapted to support a reading desk A, and the adjusting mechanism B of the desk.

The adjusting mechanism will be first described, and it consists of a vertical pin or post 30, circular in cross section, which is entered into the socket 28<sup>a</sup> of the sliding bar and clamped in said socket, the pin or post being thus capable of vertical adjustment. The upper end of the pin or post is provided with an annular groove 31, and the grooved portion of the post or pin is entered in the socket of a segmental rack 32, the rack being capable of turning around the pin or post and being held in any lateral position by means of an adjusting screw 33, passed through the socket of the rack and into the groove of the pin, as likewise best shown in Fig. 5. The segmental rack is curved downward to such an extent that when its supporting pin is in the socket of the sliding bar 28, the lower end of the rack will closely approach the socket, thus affording a maximum vertical adjust-

ment for the reading desk. The rack is of peculiar construction. Its teeth 33<sup>a</sup>, are curved or inclined upward and are covered by a flange bar 34, integral with the rack, the said flange bar extending over the teeth concentrically therewith; and the flange bar is of a width much greater than the thickness of the rack at the portion containing the teeth, so that the edges of the flange bar extend somewhat beyond the side surfaces of the body portion of the rack, and this extension of the flange bar is maintained from end to end of the rack. A plate C is adapted to co-operate with the rack, and this plate may be of any desired shape. Preferably, however, it is somewhat cruciform, as shown best in Fig. 8, and upon opposing members C' and C<sup>2</sup> of the plate, at each side of the center thereof, retaining devices are located, these retaining devices being adapted to clamp the flange bar 34 of the rack, and they are so formed as to enable the rack to be readily turned in the said retaining devices. One of the retaining devices, designated as 35, is somewhat rectangular and skeleton shape in cross section, and in its lower member is provided with an opening 36, while the other retaining device 37, comprises two parallel ears and a pin 39, connecting the ears.

In operation, the flange bar 34 of the rack is entered through the opening 36 of the retaining device 35, and is turned until it fully enters said device, the lower side of the said retaining device 35, clamping the flange bar at each side. The flange bar is then passed between the ears of the retaining device 37, and the pin 39, is placed in position to connect the ears and extend across the under face of the bar, as shown in Fig. 5. This pin is adapted to enter the spaces between the teeth 33<sup>a</sup> of the rack, and consequently the retaining device 37, is of much greater depth than the retaining device 35. The retaining device 35 is the upper and the device 37 is the lower one of the same character. The plate C, is screwed or otherwise fastened to the under side of the reading table A at the center thereof. The table may be made of any desired shape in general contour, and is provided at or near its lower edge with a ledge 40, adapted to support a book, or other article placed upon the table. At each end of the table, as shown in Fig. 9, a recess is made to receive a plate, the plates being designated as *a* and *a'*. The outer faces of these plates are flush with the upper face of the table, rendering thereby the said face of the table practically smooth. Each plate is provided with an under-cut, inverted T-shaped, longitudinal groove 41, which extends from end to end; but at the inner end of each plate the groove is enlarged to circular form, as designated at 42, and these enlargements are adapted to receive spindles 43, the said spindles being adapted at their lower ends to enter the under-cut grooves 41. The spindles are tapering, and are of greatest diameter near



their lower ends, and their lower extremities are of like formation, and are made as follows: A head 44, is formed at the extreme lower end, and a flange 45, is formed above the head a short distance from it, the distance between the flange and the head corresponding practically to the thickness of the plates between their under-cut grooves and their outer faces, while that portion of each of the spindles between the flange and the head is much reduced in diameter. Thus by entering the head portion of the spindle in the enlarged portion 42 of the under-cut groove of the plate upon the reading desk, the spindle may be slid inward into the groove, the head being located in the under-cut portion of the plate and the flange above it and in engagement with its outer face. By this construction the spindles may be moved toward and from the center of the reading desk in a convenient and expeditious manner, and may be entirely removed from the plates or quickly and conveniently placed therein.

Each spindle 43, located upon the reading desk A, carries a button 46, and these buttons are apertured in such manner that they may be freely slid upon the upper portion of the spindle, yet as they are pressed downward to the bottom thereof they bind against the spindle and will be held fixedly with relation thereto by the action of the spring 47, one of which springs is attached to each button 46, and extends outward upon a curved line at one side of the latter; and the normal position of the springs is over the under-cut grooves, pointing in direction of the center of the table. When the buttons 46 are pressed downward, and the spring is brought in engagement with the leaves of a book, or the back of it for instance, the spring will be flattened out, its normal position being somewhat bowed, and will serve to maintain the book or other object to be carried by the table in a fixed position thereon. Each button is further provided with a supplemental spring 48, of a like character, curved downward so as to normally engage at one end the spring 47, the opposite end of these supplemental springs being pivoted in the upper surfaces of the buttons, so that the upper springs may be turned from side to side over the book or other object to be supported; and these upper or supplemental springs are adapted to hold open the leaves of the book being read. When the leaves are to be turned these springs are carried out of the way, and after a leaf has been turned over, the supplemental springs are brought together to their normal position, that is, in engagement with the leaves.

With reference to the bracket 22, adapted to support the supplementary table D, or the table adapted to carry a dictionary, or a book of reference, the said table, as has been heretofore stated, is adjustable, although not to such an extent as is the reading table, as in the matter of the reading table the same may be carried to a horizontal position, or at an

angle with respect to a vertical line, or it may be carried downward vertically, or the lower end of the reading table may be carried inward, bringing the upper edge outward, thereby enabling a person to read from a book on the table when the person is in a reclining position.

The adjustment of the supplementary table is accomplished through the medium of mechanism shown in detail in Figs. 3 and 4, the entire mechanism being designated by the reference letter E. This mechanism may be said to comprise two sections  $e$  and  $e'$ ; the section  $e'$ , consists of a stud 49, adapted to enter the socket 22<sup>b</sup> of the bracket 22. The upper end of this stud has an annular groove 50, formed therein and is entered into the socket extension 51 of a disk 52, the socket extension being provided with a set screw 53, which enters the groove in the stud. One face of the disk 52, is convexed, and is provided with a series of radial teeth or ribs 54, shown in Fig. 4; and from the center of the disk a stud 55, is laterally projected, the outer end of which is threaded to receive a lock nut 56, and a spring 57, is coiled around the stud between the lock nut and the disk. The section  $e$  of the adjusting mechanism E, consists of a disk 58, the inner face whereof is concaved and shaped to fit snugly to the convexed surface of the disk of the lower section, as shown in Fig. 3; and the concaved face of the disk is ribbed or toothed, to correspond to the opposing face of the disk 52. The disk 58 of the upper section is provided with a central opening to receive the stud 55 of the lower section, and is further provided with a plate 59, attached to or integral with its upper edge, the plate being screwed upon the bottom of the supplementary table or desk D, or otherwise attached thereto. When the two disks 52 and 58, are brought together, the spring is placed upon the stud 55, and the lock nut 56, is then screwed upon the stud, and a spring pressure is thereby exerted upon the disk 58, holding it in engagement with the disk 52, the tension upon the spring being increased or decreased by the manipulation of the lock nut 56.

This reading stand, it will be observed, is exceedingly simple, and either one of the desks may be adjusted independently of the other. The reading desk, as has heretofore been stated, may be placed in a position to enable one to read therefrom whether the person be standing, sitting, or reclining, and the desk adapted to hold a reference book, an album or the like, may be given any required inclination, and held in the position in which it may be placed.

The reference desk is adjustable vertically, and through the medium of its bracket 22 may be swung around the center of the body tube 10, or raised or lowered upon the bracket through the medium of the stud 49 and adjusting screw 25, while the reading desk is capable of vertical adjustment upon the sliding bar 28 through the medium of the stud 30



and adjusting screw 29; and the said reading desk is capable of lateral adjustment through the medium of the sliding bar, and the sliding bar and the desk may be raised and lowered jointly by the movement of the bracket 21 upon the supporting tube 10.

When a book is placed upon the reading desk, the springs 47 of the buttons 46, are made to engage with the leaves of the book at or near the back, or with the back, or with any of the leaves adjacent to those to be read. The buttons are then pressed downward in direction of the desk, and a clamping engagement is thereby effected between the desk and the book; by means of the spindles 43 the springs 47, may be made to properly engage with books, large or small, and hold them in position. The leaves that are to be read, as has heretofore been stated, are held clamped by the auxiliary pivotal spring 48.

Having thus fully described our invention, we claim as new and desire to secure by Letters Patent—

1. In a reading desk, the combination, with a standard, a bracket adjustable upon the standard, a segmental rack provided with a guard over its toothed surface, and a stud vertically located and adjustably connected with the bracket, of a desk provided with retaining devices, extending between the guard and the rack and adapted for engagement with the teeth of the rack, said desk being provided with clamping devices for the reception of a book, substantially as shown and described.

2. In a reading stand, the combination, with an adjustable bracket and a desk, of an adjusting mechanism connecting the desk and the bracket, said mechanism consisting of retaining devices attached to the desk and located at its under face, a post attached to the bracket, a segmental rack carried by the post and receiving the retaining devices of the desk, said segmental rack being provided with a guard over its teeth, between which guard and the teeth said retaining devices may have movement, as and for the purpose specified.

3. In a reading stand, the combination, with a central support, a bracket adjustable vertically and swinging laterally upon the support, and a bar adjustable in the bracket, of

a desk, an adjusting mechanism connected with the desk and sliding upon the bracket, said adjusting mechanism consisting of retaining devices attached to the desk, said devices comprising two spaced arms, one being of yoke-like construction, a post adjustably located in the sliding bar, a segmental rack adjustably connected with the post and receiving the retaining devices of the desk, the segmental rack occupying substantially a vertical position, a flanged bar of greater width than the body of the rack, located over its teeth and extending virtually from end to end of the rack, forming an inclosed channel over the teeth of the rack for the reception of the retaining devices, substantially as and for the purpose specified.

4. In a reading stand, a desk provided with plates located thereon and having under-cut grooves, spindles having sliding movement in the under-cut grooves, knobs loosely mounted upon the spindles yet capable of frictional engagement therewith, and springs carried by the knobs and adapted to extend in a curved line in direction of one another over the under-cut grooves, as and for the purpose set forth.

5. In a reading stand, a desk provided with grooves extending from the sides in direction of the center, spindles having movement in the grooves and extending outwardly therefrom, knobs capable of sliding movement on the spindles and of frictional engagement therewith, binding springs emanating from the knobs and adapted to extend substantially in a curved line over the under-cut grooves and adapted to hold a book or like article in an open position upon the desk, and supplemental springs carried by the knobs and having pivotal engagement therewith, said springs being adapted to bear normally upon the main or binding springs of the knobs, the auxiliary springs being adapted also to clamp the leaves of a book, as and for the purpose set forth.

FRANCIS JOHN ANDERSON.  
WILLIAM MADISON IRICK.

Witnesses:

JOHN W. PUCKETT,  
M. DORENFELD,  
JNO. P. LANE.