J. R. J. HOME.

WRITING DEVICE FOR THE BLIND.

APPLICATION FILED JULY 28, 1917.

1,259,866. **Patented Mar. 19, 1918.**

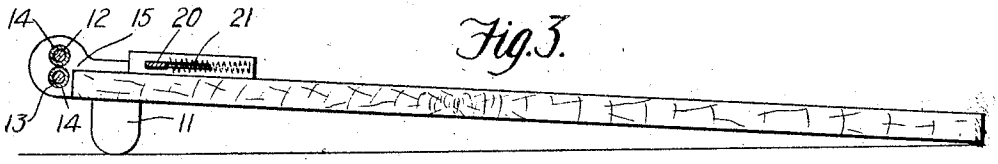


Fig. 3.

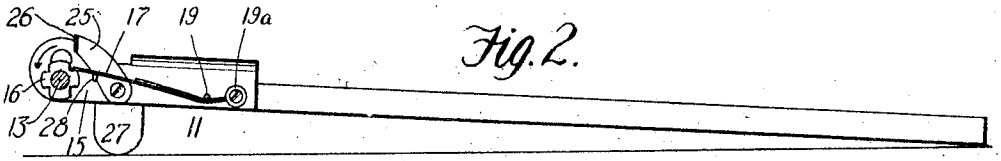


Fig. 2.

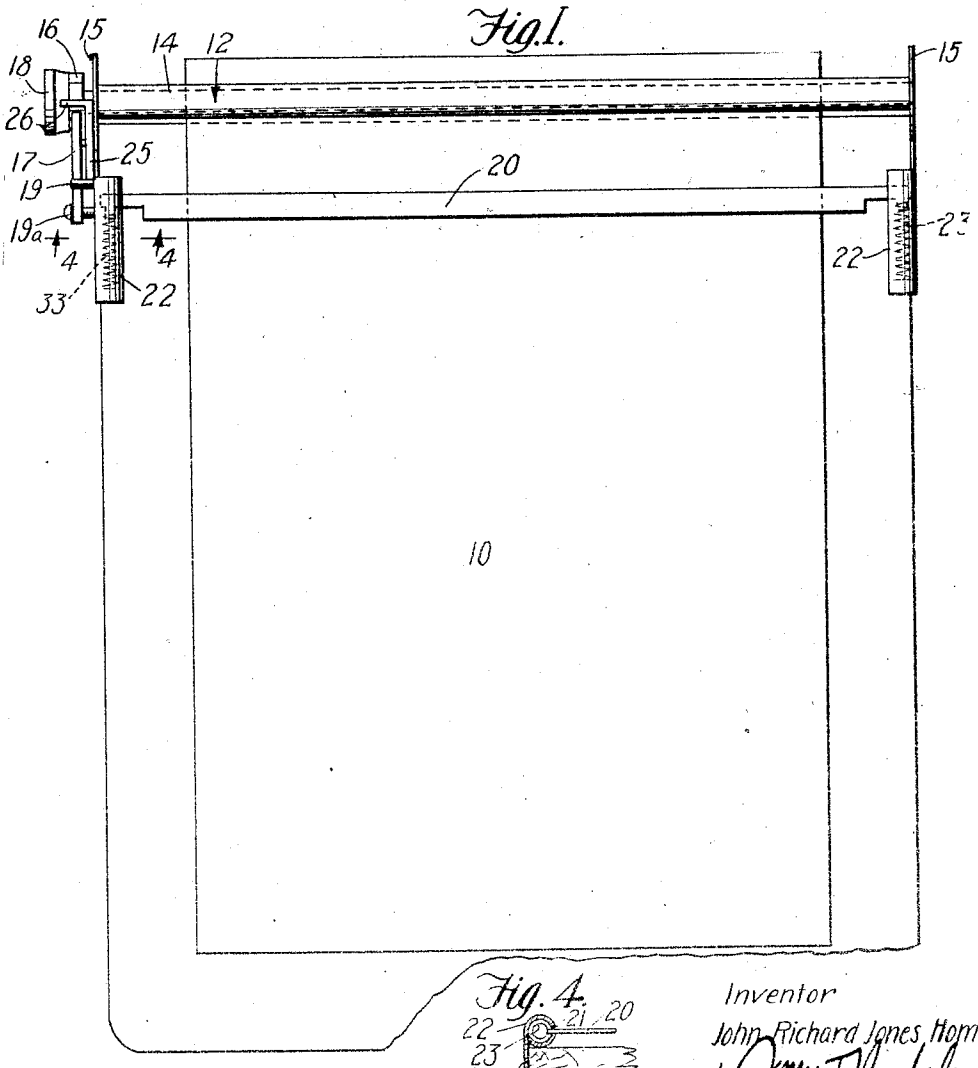


Fig. 1.

Fig. 4.

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UNITED STATES PATENT OFFICE.

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WRITING DEVICE FOR THE BLIND.

1,259,866. Specification of Letters Patent. Patented Mar. 19, 1918.

Application filed July 28, 1917. Serial No. 183,357.

To all whom it may concern:

Be it known that I, JOHN RICHARD JONES HOME, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles, State of California, have invented new and useful Improvements in Writing Devices for the Blind, of which the following is a specification.

This invention relates to devices for facilitating writing by blind persons; and it is an object of this invention to provide a simple, effective, and inexpensive form of device which will enable a blind person to write with speed and with accuracy; and to provide a device whose use may be easily mastered by a person deprived of sight.

This invention is in the nature of an improvement upon my invention described and in my application Serial No. 122,778, filed September 28, 1916; and this application is partially a continuation of said application. In general, my invention comprises a writing board or a writing surface otherwise provided, and a depressible writing guide over which a person may write; and a means for progressively advancing the paper which is written upon. This means for progressively advancing the papers preferably comprises a ratchet device which will indicate, by touch and by sound, the proper advancement of the paper. And I further, in my improved form of device, provide a means for releasing the ratchet mechanism to allow the paper to be moved in a reverse direction. It is a particular excellency of my present improved form of writing device, that it is very simple in its nature and exceptionally inexpensive to manufacture so that it can be supplied to blind persons at a low cost.

The nature and scope of the invention will be best understood from the following description of a specific and preferred form of device embodying the invention, I refer to the accompanying drawings wherein—

Figure 1 is a plan of my improved device; Fig. 2 is a side elevation thereof; Fig. 3 is a longitudinal central section thereof; and Fig. 4 is a detail section taken on line 4—4 of Fig. 1.

In the drawings the numeral 10 designates a suitable writing board or base, of any suitable size and extent, and preferably supported at its upper end upon knobs or pegs 11 so as to support it in a somewhat inclined position convenient for writing. At the upper edge of this board I mount a pair of rollers 13 and 12, preferably of rubber, the rubber being provided for the purpose of providing a proper grip upon the paper which is passed between the rollers. These rollers are mounted in bearing plates 15, one at each side of the upper end of the board 10. The lower roller 13 has a ratchet 16 mounted thereon; and a spring pawl 17 engages this ratchet to prevent rotation of the roller in a rearward direction. In normal operation the thumb wheel 18 on the end of this roller 13 is rotated in the direction indicated by the arrow in Fig. 2, and the pawl 17 prevents backward rotation. The dropping of the pawl into the teeth of the ratchet indicates, both by touch and by sound, the proper amount of rotation necessary to advance the paper upwardly by proper amount to make the correct spacing between lines of writing. The spring pawl 17 is preferably mounted upon a screw post 19^a and a small pin 19 holds the pawl down on the ratchet.

At a suitable distance below the rollers 12 and 13 I provide a writing guard bar 20 mounted in guide ways 21 at its opposite end. These guide ways 21 are preferably formed by slots in cylindrical casings 22, as shown in the drawings. These cylindrical casings 22 are made by bending the upper portions of the side plates 15, a cylindrical housing being just formed for the springs 23 which move the guide bar upwardly, and resiliently hold the guide bar in its normal upper position. These springs 23 are of sufficient strength to hold the guide bar normally in place, but are delicate enough so that they may be displaced by a pencil or pen point without an undue pressure. The guide bar is thus resiliently supported only at its two opposite ends. There are no supports on the intermediate portion of the guide bar, so that the space between the parts 22 is left free and open for the hand. The guide bar forms the normal lower line of writing, and is only pushed down when it is desired to form a letter or parts of letter below the line; and the length of the guide slots 21 is set as to allow the bar to be pushed down by about the proper amount. With a little experience with the device, a blind writer who has a knowledge of the formation of characters, will readily recognize the touch of the pencil or pen upon the guide bar 20, and he soon becomes proficient

and writes accurately and uniformly and legibly. He advances the paper line by line as he writes, by rotating the thumb wheel 18. If for any reason he wishes to move the paper oppositely, he may raise the spring pawl 17 by turning back a small pivoted pawl lifting member 25. This pawl lifting member 25 has a projection 26 which may be engaged by the finger or thumb, and has a small projection 28 which lies under the spring pawl 17. When the member 25 is thrown back toward the writer, the spring pawl is raised, and then the rollers 12 and 13 may be rotated in a reverse direction to move the paper back down the board.

My device is extremely simple in its construction and exceptionally easy to operate. It has been shown by actual experience to be efficient and capable of enabling a blind person to write with accuracy. In its present improved form it is exceptionally inexpensive to manufacture and consequently can be supplied at a low price.

Having described a preferred form of my invention, I claim:

1. A device of the character described, comprising a base board adapted for writing, side plates mounted at opposite sides of the board at one end thereof, a pair of rollers mounted across said end of the board in said side plates, said rollers adapted to receive between them a sheet of paper, a ratchet wheel upon said roller, a spring pawl mounted upon one of said side plates and normally pressing into spring engagement with said ratchet wheel, a pivoted pawl releasing member pivotally mounted upon said side plate and having a part engageable with the pawl, so that movement of said pivoted member will raise the pawl from engagement with the ratchet wheel, guide members formed by the upper portions of said side plates turned into cylindrical form over the edges of the base board, said guide members having slots on their inner sides parallel with the base board, a spring in each of said guide members, and a writing guide bar extending across the base board and having its ends entered into said guide members through said slots and supported by said springs.

2. A device of the character described, comprising a base board adapted for writing, side plates mounted at opposite sides of the board at one end thereof, a pair of rollers mounted across said end of the board in said side plates, said rollers adapted to receive between them a sheet of paper, a ratchet wheel upon said roller, a spring pawl mounted upon one of said side plates and normally pressing into spring engagement with said ratchet wheel, guide members formed by the upper portions of said side plates turned into cylindrical form over the edges of the base board, said guide members having slots on their inner sides parallel with the base board, springs in said guide members, and a writing guide bar extending across the base board and having its end entered into said guide members through said slots and supported by said spring.

JOHN R. J. HOME.