

June 16, 1936.

E. B. MORGAN ET AL

2,044,589

EASEL

Filed July 23, 1934

2 Sheets-Sheet 1

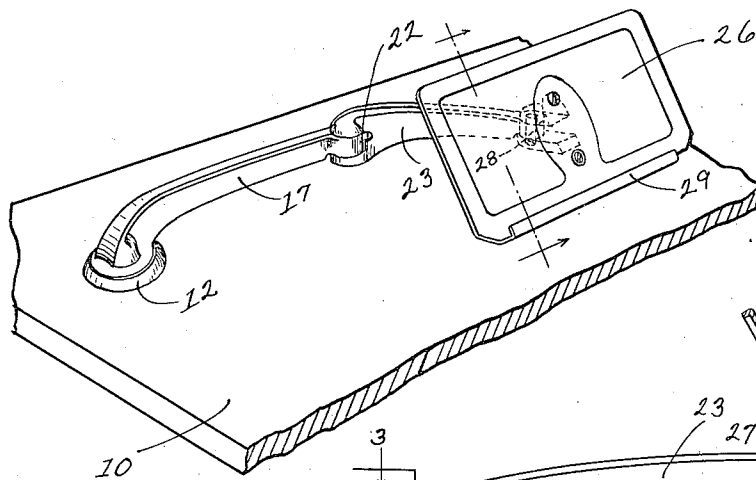


Fig. 1

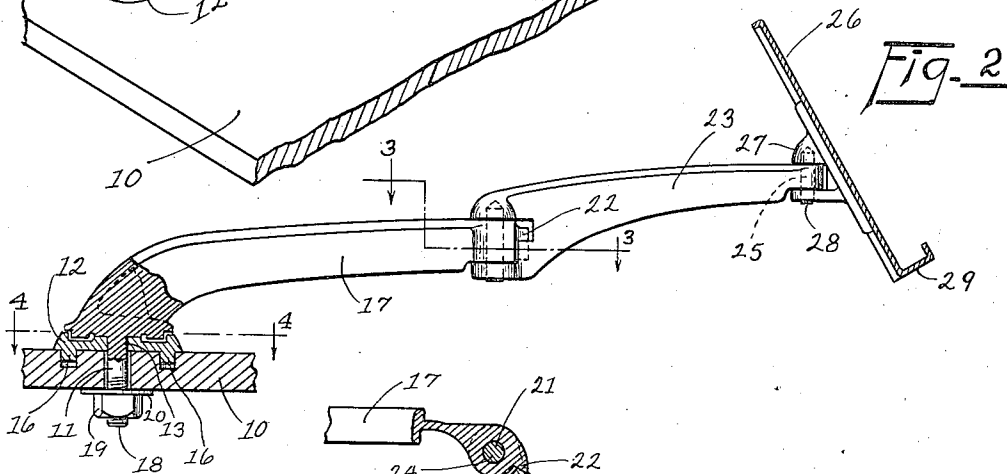


Fig. 2

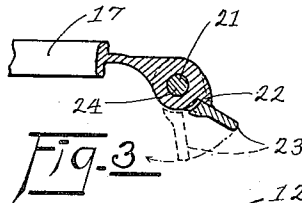
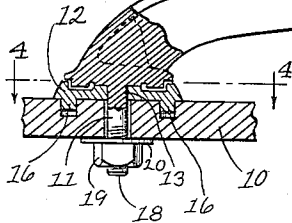


Fig. 3

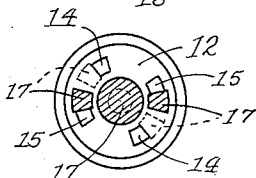


Fig. 4

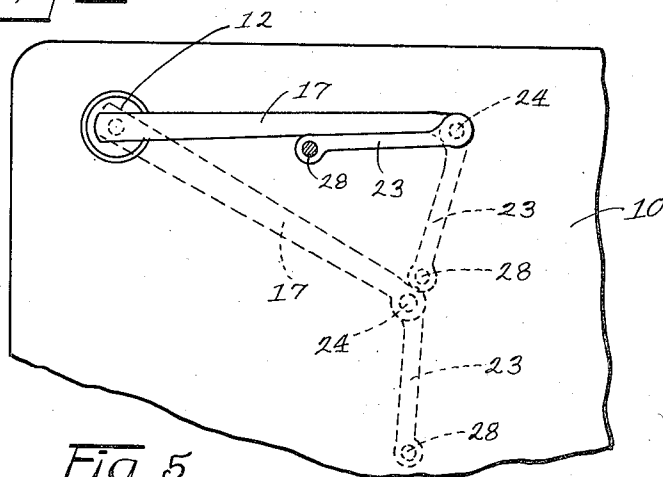


Fig. 5

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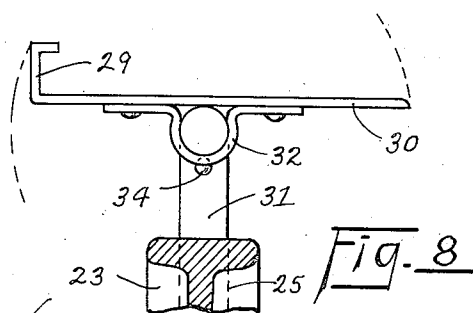
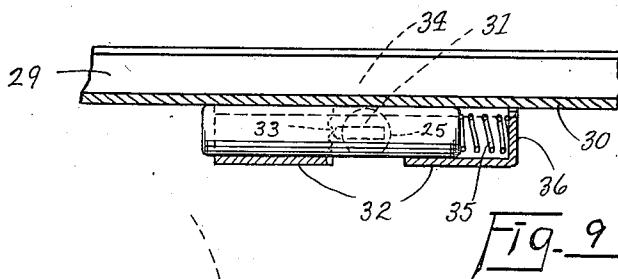
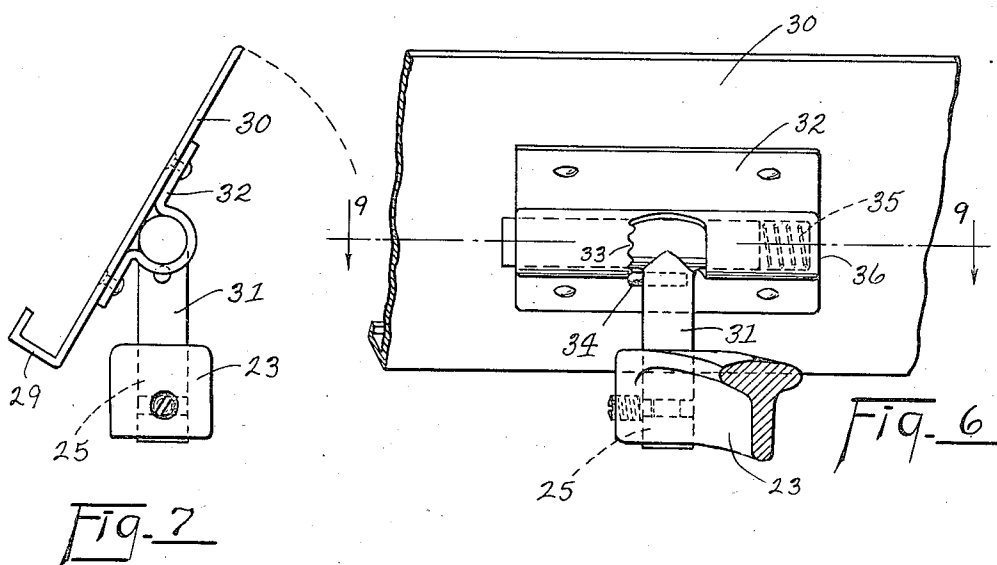
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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

2,044,589

EASEL

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2 Claims. (Cl. 45—82)

The present invention relates to easels and more particularly to easel attachments for school desks.

The primary objects of the instant invention are to provide a device of the character above indicated having adjustments adapting it for varying needs and uses of the school pupil; to provide such a device which when being adjusted for use or which when being returned to its non-usable position by the pupil, cannot be operated in a manner that might cause body or head injuries to the pupil seated at the desk forwardly of the desk to which the device of the invention is attached; to provide such a device designed to minimize eye strain of the pupil using it; and, to provide a device of the character above indicated which is serviceable and utilitarian in use, economical in manufacture and which is adaptable for attachment to existing or present type school desks.

Illustrative embodiments of the invention are shown in the accompanying drawings, wherein:

Figure 1 is a fragmentary perspective view of a school desk showing the manner in which the attached device of the instant invention may be adjusted for use;

Figure 2 is a side elevational view of the device per se, a portion thereof being in section and showing the manner in which the operation thereof prevents movement beyond the forward edge of the desk to possibly injure the pupil seated at the desk forwardly thereof;

Figure 3 is a sectional view on line 3—3 of Figure 2, that portion which is shown in dotted lines indicating the swinging movement of the supported arm relative to its supporting arm;

Figure 4 is a sectional view on line 4—4 of Figure 2, that portion which is shown in dotted lines indicating the movement of the supporting arm relative to the desk;

Figure 5 is a diagrammatic view showing the manner in which the device may be consecutively moved from non-usable position shown in full lines to two different positions of use shown in dotted lines;

Figure 6 is a fragmentary rear elevational view of a modified form of easel;

Figure 7 is an end elevational view of the modified form of easel shown in Figure 6;

Figure 8 is an end elevational view partly in section and showing the manner in which the easel may be tilted about its horizontal axis; and

Figure 9 is a sectional view thereof on line 9—9 of Figure 6.

Referring to the drawings in which like parts

of the structure shown are designated by the same numerals in the several views, a school desk top 10 of the conventional type is drilled to provide a vertical bore 11.

A collar 12 having a bore 13 of substantially the same diameter as the bore 11 in the desk top is provided with pairs of upstanding stops 14, 15 and with depending lugs 16. This collar is mounted upon the desk top with its bore in registration with the bore in the desk top and the upper surface of this collar forms a bearing for the laterally swingable supporting arm 17 whose vertically depending pin 18 is disposed within the bores 11, 13 of the collar and desk respectively.

This pin protrudes below the lower surface of the desk top and is screw threaded to receive the nut 19 which when tightened against the washer 20 secures the arm 17 for horizontal swinging movement relative to the desk top. The upstanding stops 14, 15 thus limit the swinging movement of the arm 17 and when the collar 12 is correctly fixed to the desk top, these stops prevent its swinging beyond the forward side of the desk top to which it is attached, avoiding possible consequent head or bodily injury to the pupil seated forwardly thereof.

The other or free end of the supporting arm is here shown as provided with a vertical bore 21 and with a laterally extending portion 22 forming a stop. A bifurcated supported arm 23 embraces the free end of the supporting arm 17 and a pintle 24 passing through the bifurcated ends of the supported arm 23 and the bore 21 of the supporting arm 17 provides means for laterally swinging the supported arm on its supporting arm. The stop 22 engages the supported arm to limit the forward swinging movement thereof as best shown in Figures 2 and 3.

The opposite or free end of the supported arm 23 is provided with a vertical bore 25 and in the easel construction shown in Figures 1 and 2, the rear side of the easel 26 is provided with a bifurcated plate 27 which embraces the free end of the supported arm. A pintle 28 passing through the bifurcated ends of the plate 27 and the bore 25 of the supported arm provides means for swinging the easel about a vertical axis. This easel is preferably formed from stamped sheet metal and may if desired be provided with a forwardly and upwardly flanged portion 29 adjacent its lower horizontal length to form a support for books, papers and the like.

In the modified construction shown in Figures 6 to 8, the easel 30 may likewise be formed of stamped sheet metal if desired. A T-shaped sup-

port 31 for the easel is rotatably disposed within the bore 25 of the supported arm 23 as best shown in Figure 6, and a plate 32 secured to the rear side of the easel in any suitable fashion rotatably and slidably embraces the oppositely disposed transverse or horizontal portions of the support.

Means for maintaining the easel in adjusted rotatable position upon its support about a horizontal axis comprises a set of teeth 33 on the support embracing portion of the plate 32, a laterally extending pin 34 carried by the vertical portion of the support adapted to engage with the teeth, and a coiled expansion spring 35 confined between one end of the transverse portion of the support 31 and a flanged head 36 of the plate. Thus as the easel is rotated about its horizontal axis from the position shown in Figure 7 to the position shown in Figure 8, the pin consecutively engages within the several teeth 33 causing the easel to slide axially horizontally during the several engagements of the pin within the teeth.

In operation by the pupil, the arms supporting the easel may be swung from the position shown in full lines in the diagrammatic view, Figure 5, to either position shown in dotted lines in the same view. The easel may likewise be swung about its vertical axis in the construction shown in Figures 1 and 6 and about its horizontal axis in the construction shown in Figure 6.

It will thus be seen that an easel attachment for school desks and the like has been herein shown and described which is adjustable for varying needs and uses of the school pupil, which minimizes eye strain and which cannot be operated in a manner to cause possible head or body

injuries to the pupil seated forwardly of the desk to which the device is secured.

While but several specific embodiments of this invention have been herein shown and described, it will be understood that numerous details of the construction shown may be altered or omitted without departing from the spirit of this invention as defined by the following claims.

We claim:

1. In a device of the class described, an easel, 10 a T-shaped support therefor, a plate secured to the easel rotatably and slidably embracing the oppositely disposed transverse portions of the support, and means for maintaining the easel in adjusted rotatable position upon its support comprising a set of teeth on the support embracing 15 portion of the plate, a pin on the support adapted to engage with said teeth, and spring tensioned means for effecting a sliding and rotating engagement of the plate relative to the pin. 20

2. In a device of the class described, an arm adapted for laterally swingable attachment to a desk, a T-shaped support secured adjacent the free end of the arm, an easel having a plate vertically, rotatably and slidably embracing the oppositely disposed transverse portions of the support, and means for maintaining the easel in adjusted rotatable position upon its support comprising a set of teeth on the support embracing 25 portion of the plate, a pin on the support adapted to engage said teeth, and spring tensioned means for effecting a sliding and rotating engagement of the plate relative to the pin. 30

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