

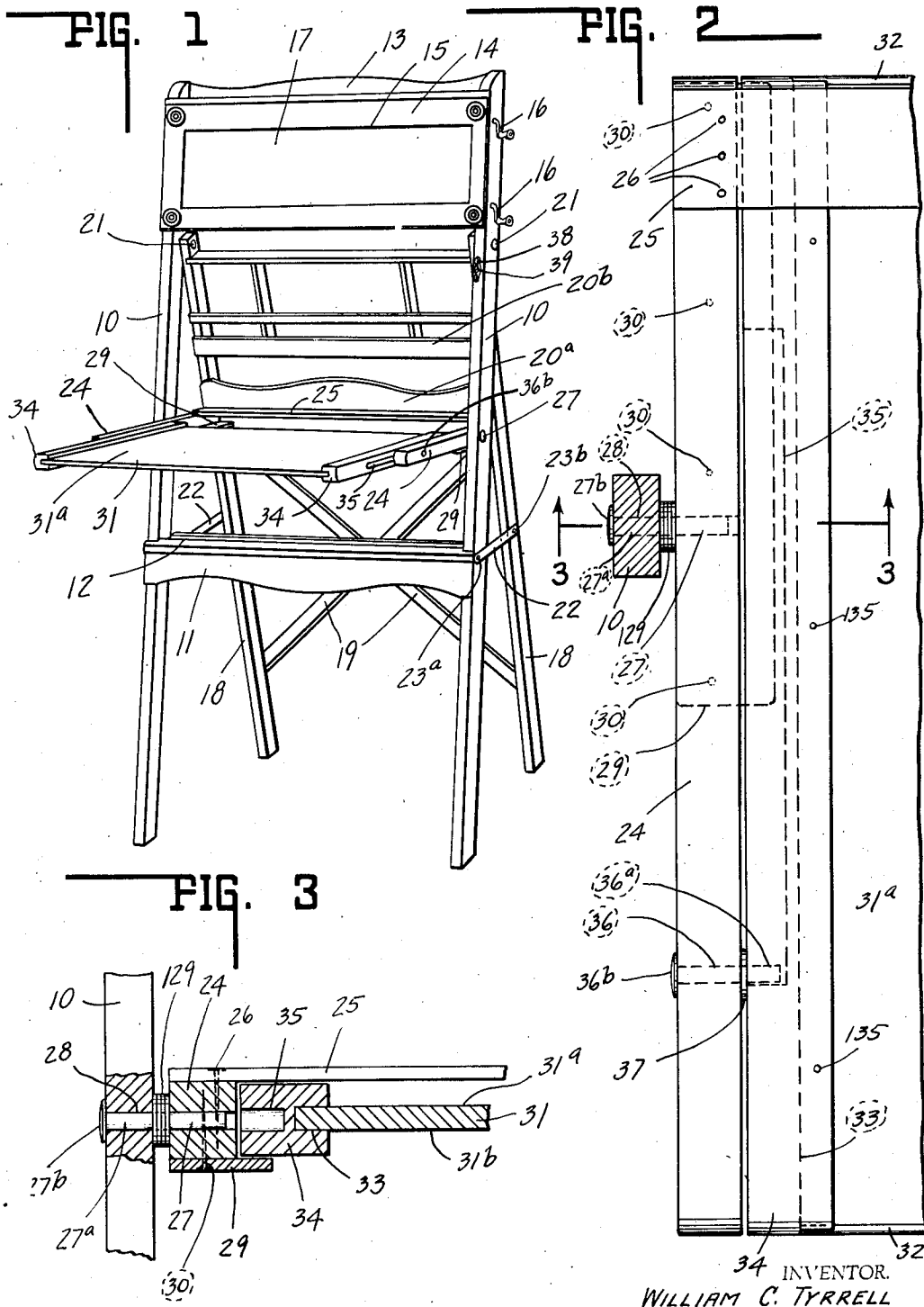
April 2, 1940.

W. C. TYRRELL

2,196,044

EASEL TYPE REVERSIBLE BLACKBOARD AND DESK STRUCTURE

Filed May 8, 1937



INVENTOR.
WILLIAM C. TYRRELL
BY
Lockwood Goldsmith & Galt
ATTORNEYS.

UNITED STATES PATENT OFFICE

2,196,044

EASEL TYPE REVERSIBLE BLACKBOARD
AND DESK STRUCTURE

William C. Tyrrell, Muncie, Ind.

Application May 8, 1937, Serial No. 141,453

2 Claims. (Cl. 45—69)

This invention relates to an easel type blackboard and desk structure.

The chief object of the invention is to provide a board arrangement which on one face is white and on the other is black, the white face being adapted to receive wax crayon impressions and the black face being adapted to receive chalk impressions, and which board may have either face arranged in upright and exposed position or in horizontal and exposed position, the latter corresponding to what is generally known as the open desk position, the former being known as the normal blackboard position.

The chief feature of the invention consists in providing a supplementary frame for the normal board frame which is tiltable into desk or board position and which auxiliary frame has a suitable connection with the board frame for accomplishing the purpose set forth.

Another feature of the invention consists in the specific form of connection between the two frames, to-wit, one of pivotal and sliding type, whereby the purpose aforesaid is accomplished and the parts are so arranged that the movement therebetween is limited only to that desired. The arrangement further is such that when the board is properly positioned, it is retained by the cooperation between the parts in the limited position.

The full nature of the invention will be understood from the accompanying drawing and the following description and claims:

In the drawing, Fig. 1 is a perspective view of the invention embodied in a combination easel type blackboard and desk structure.

Fig. 2 is an elongated top plan view of the left hand end of the board structure shown in Fig. 1 and in the limited position.

Fig. 3 is a transverse sectional view taken on line 3—3 of Fig. 2 and in the direction of the arrows.

A combination easel type blackboard and desk structure is conventionally illustrated in Fig. 1. Merely by way of example only, the following description thereof is herewith presented. The combination structure referred to includes a pair of main frame members or front legs 10 secured together by the cross member 11 and also associated therewith is the customary chalk rail 12. The upper ends of the members 10 are connected together by the head member 13 and the forward face of the members 10 supports the open frame structure 14 having the opening 15 therein.

A pair of rollers is mounted behind the open frame structure 14 and each is connected to a

crank 16 and said cranks are adapted to move the elongated legend strip or scroll 17 exposed by the opening 15 so the desired legending may be exposed through the opening 15.

A pair of rear legs 18 is suitably braced by an X-structure 19 near the lower ends and are connected at their upper ends by a desk pocket forming structure indicated by the numerals 20a and 20b. The rear leg structure is pivoted to the front leg structure as at 21. A suitable connection between the front and rear leg structures is provided and this may be of any conventional type and is herewith illustrated as of a flexible strip 22 secured as at 23a and 23b, respectively, to the front and rear leg structures.

As stated initially, the foregoing constitutes a brief description of one form of conventional combination easel type blackboard and desk structure, except for the board structure proper, and to which this invention is more specifically directed.

A pair of frame members 24 is connected at their rear ends by the batten 25 as at 26. The frame members 24 are pivotally supported at 27, the exposed end of a headed member 27a having the head portion 27b and mounted in the leg member 10 as at 28. A suitable number of spacing washers 129 is interposed between the front leg 10 and the frame member 24 so as to insure clearness and permit tilting of the frame members 24 about the axis common to the two pivot members 27, one in each front leg.

Suitably secured as at 30 to the underface of the rail 24 is a guide and slide plate 29. This plate extends substantially from the rear end of the rail 24 forwardly a sufficient distance beyond the pivotal connection of said rail with the front leg. The rear end of said plate terminates beneath the batten 25.

A board 31 includes a face 31a and a face 31b. In the drawing, the face 31a is exposed and this is the wax crayon receptive white face. The black face or blackboard is indicated by the numeral 31b.

The front and rear edges of the board 31 may be suitably protected by U-shaped metal reenforcements as at 32. The opposite edges of the board 31 are seated in the slot 33 of the auxiliary rail 34 and are secured in said slots as at 135. The two auxiliary rails 34 of the board 31, having its edges protected, constitutes a unitary structure and may be positioned as hereinafter set forth.

The auxiliary rail 34 in its face adjacent rail 24 has an elongated slot 35 formed therein and

adapted to receive the projecting end 36a of the stop, guide and pivot pin member 36 having the head 36b and carried by the frame member 24 forwardly of the first mentioned pivotal connection and forwardly of the forward edge of the slide plate 29. To facilitate movement when desired and prevent binding, there may be interposed between the two adjacent rails the spacing washer 37. It is to be observed that the distance—see Fig. 2—between the forward edge of the slide plate and the axis of the combination pivot 36 is greater than the distance between the rear end of the slot and the rear edge of the board or the forward end of the slot and the forward edge of the board.

All of the essential parts of the invention having been described, reference is now had to the operation of the same. It will be apparent to those skilled in the art, that the easel type blackboard is normally positioned as shown in Fig. 1, which is the extended position as distinguished from the flat or collapsed position. When so extended, the board 31 may be positioned in open desk position—that is substantially horizontal, as shown or may be positioned in closed desk position—that is, in an upright relation. In the latter position, the forward portion of the rails 24 engage the upper ends of the rear legs 18 which serve as a stop. Likewise, in the former position, the batten or the rear ends of the member 24 or both engage the member 20a or the forward face of the rear legs 18, respectively, or both, as desired. When in the upright position, the board is retained therein by the wing locking member 38 pivoted to one of the front legs as at 39.

The aforesaid description of operation is generally conventional to the standard easel type board and desk structure. The customary arrangement of a blackboard structure of this form is to have the white face exposed upwardly and in open desk position when the parts are opened into the same, and to have the blackboard face exposed when the parts are in the upright, closed desk or blackboard forming position. The present invention departs from this conventional arrangement in that with the same it is possible to position the white board face in exposed relation when in closed desk position and/or blackboard face in exposed position when the board device is in open desk position.

To reverse the board, it is required that the board 31 and supporting side rails 34 be slid forwardly a sufficient amount to clear the batten, and then the board is tilted on its pivots 36a and if it is discovered that near the end of the tilting movement the board side rails 34 would engage the underface of the two slide plates 29, the board must be further slid forwardly until the then rear edges of the board side rails 34 clear the forward edges of the slide plates 29. When

this occurs the board is positioned in substantial alignment with the rails 24 and then it is slid rearwardly on said plates 29 and into the pocket, as it were, formed between the two rails 24, plates 29 and the batten 25.

When thus positioned, the blackboard face 31b is exposed upwardly in open desk formation and the white face 31a of the board 31 is therebeneath. When the device is closed, the white face 31a is exposed forwardly in the upright position. The opposite ends of the slots 35 limit the rearward movement of the board structure to only that necessary to have the board structure register with the U-shaped frame structure formed by the rails 24 and the batten 25. The opposite end of the slots 35 permit the board structure to be pulled forwardly the full length of the slots and when thus positioned, the rear edges of the rails 34 clear the forward edges of the side plates 29. If this type of forward sliding is preferred, the board is then tilted with its rear end downwardly and then forwardly and upwardly so that the forward end of the board 31 moves upwardly and rearwardly, and thence downwardly, the rails 34 then engaging the slide plates 29. Upon said engagement the board structure is slid into the pocket before mentioned and the reversal is completed.

While the invention has been described and illustrated in the foregoing description and drawing in great detail, the same is to be considered as illustrative and not restrictive in character. The several modifications, some of which have been hereinbefore suggested, as well as others which will readily suggest themselves to persons skilled in this art, are all considered to be within the broad scope of this invention, reference being had to the appended claims.

The invention claimed is:

1. In a writing board support the combination with an easel type frame having a pair of front legs, of a rail member, comprising parallel sides, pivoted thereto, each of said sides having an inwardly projecting pin and slide-plate associated therewith, and a writing board adapted to be slidably and pivotally supported by said rail member in horizontal or vertical position and with either face exposed.

2. In a writing board support the combination with an easel type frame having a pair of front legs, of a rail member, comprising parallel side rails and a connecting rail, pivoted to said front legs, each of said side rails having an inwardly projecting pin and slide-plate associated therewith, and a writing board adapted to be pivotally and slidably supported by said rail member in horizontal or vertical position and with either face exposed, said board being provided with a pair of slotted rails.

WILLIAM C. TYRRELL.