

(No Model.)

G. J. SCHNEIDER & K. F. G. BRENNER.
BLACKBOARD.

No. 604,422.

Patented May 24, 1898.

Fig. 1.

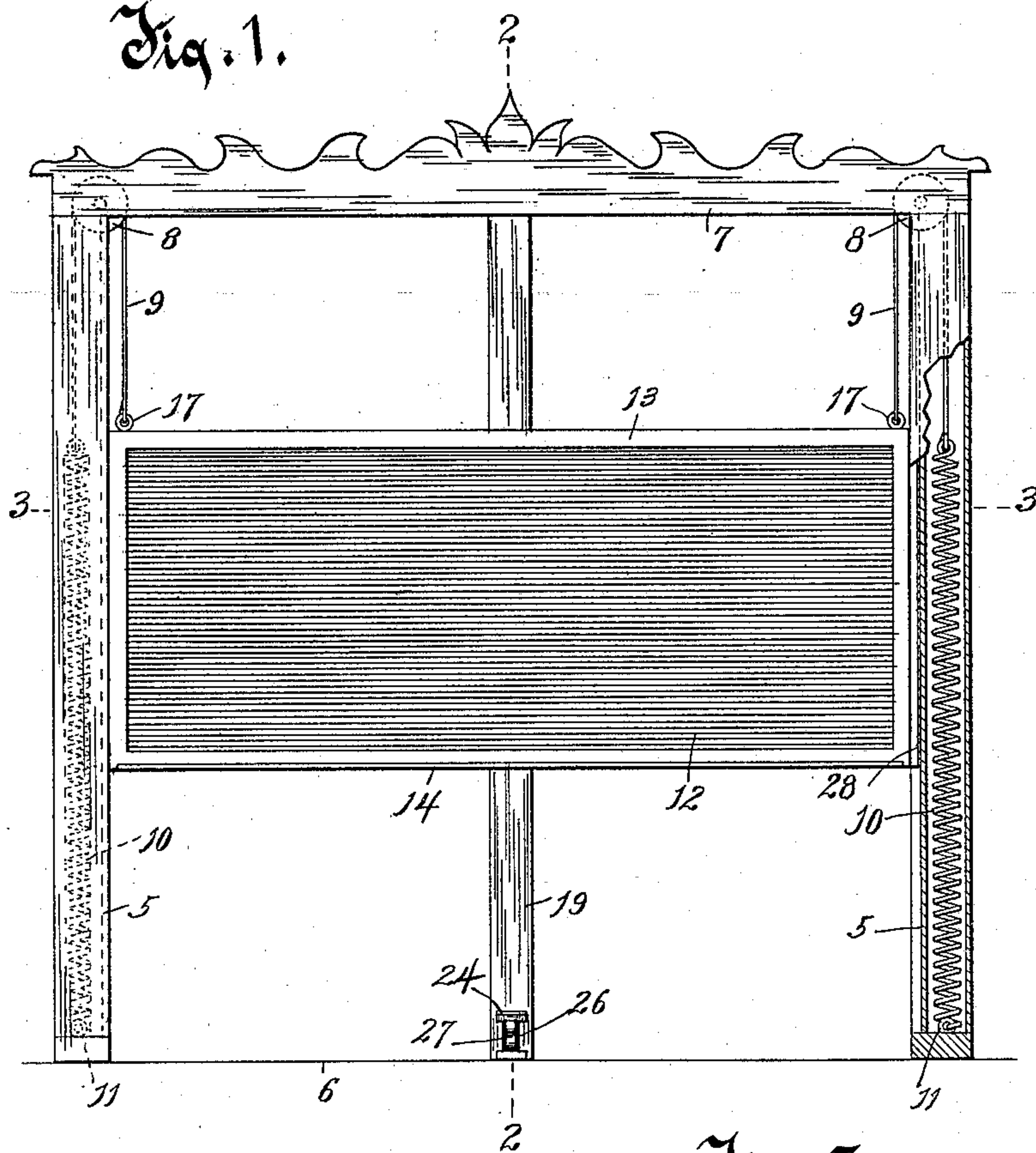


Fig. 2.

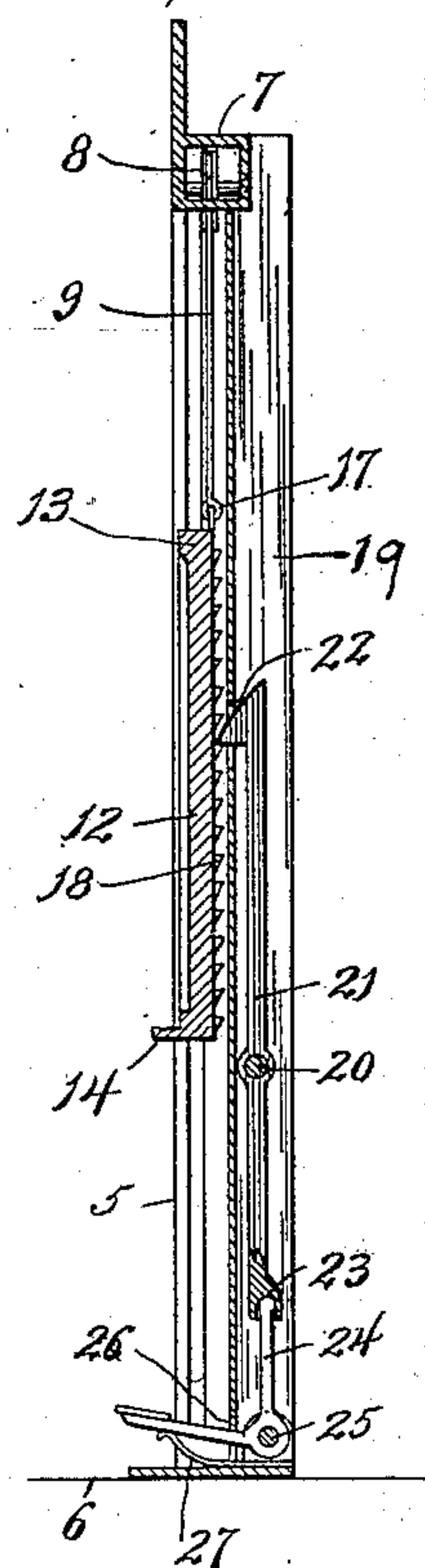


Fig. 3.

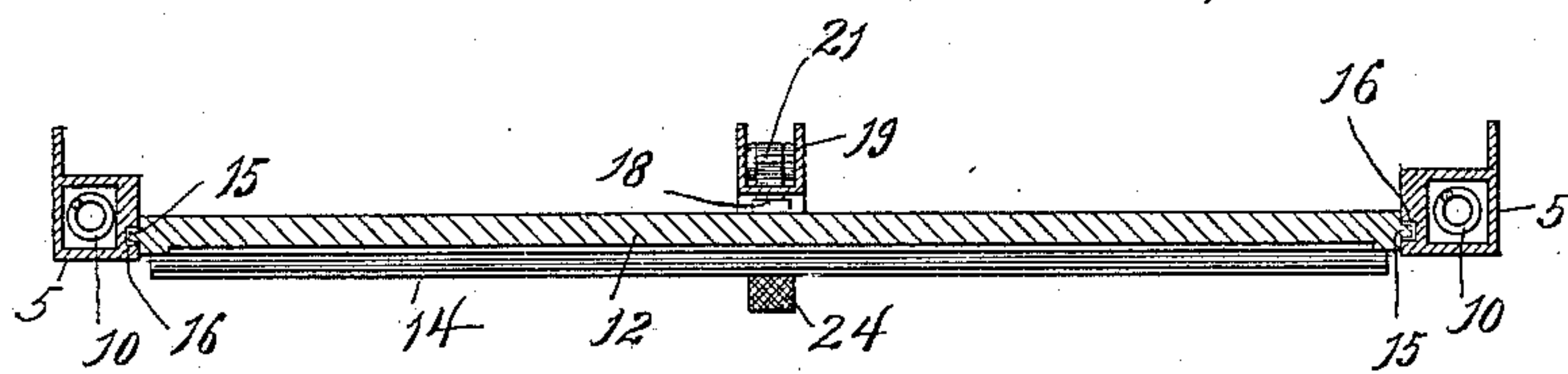
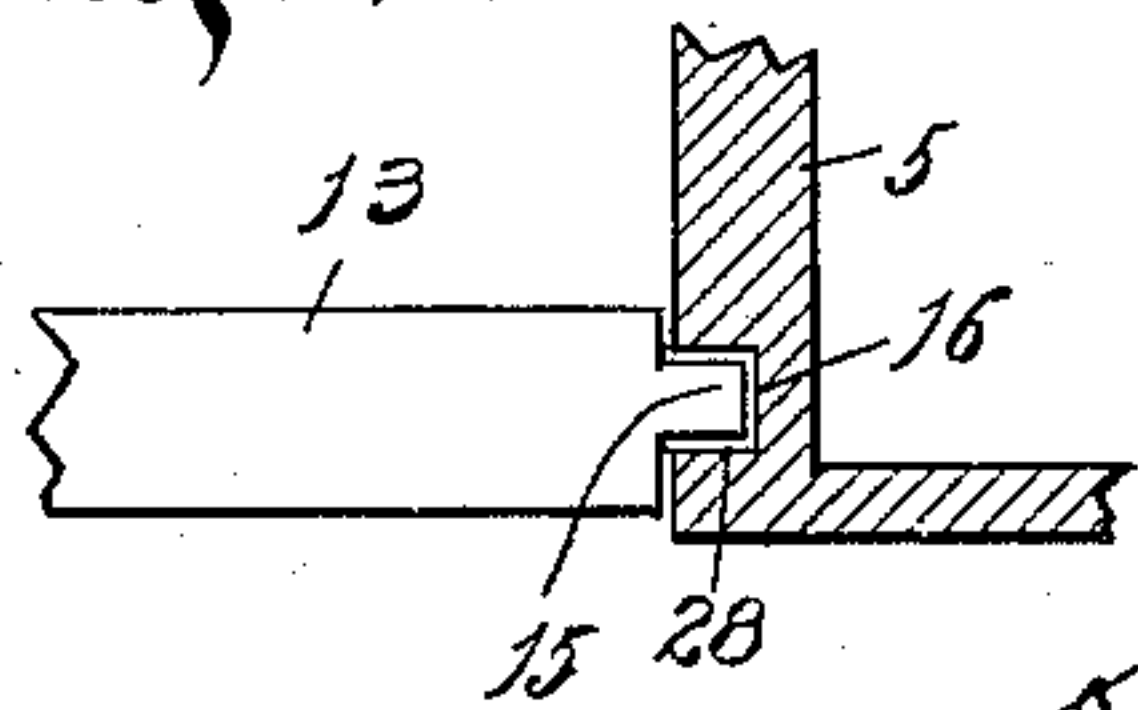


Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

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BLACKBOARD.

SPECIFICATION forming part of Letters Patent No. 604,422, dated May 24, 1898.

Application filed March 20, 1897. Serial No. 628,389. (No model.)

To all whom it may concern:

Be it known that we, GUSTAV J. SCHNEIDER, of Sheboygan, in the county of Sheboygan, and KARL F. G. BRENNER, of Kaukauna, in the county of Outagamie, State of Wisconsin, have invented a new and useful Improvement in Adjustable Blackboards, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

Our invention relates to improvements in adjustable blackboards.

It is the object of our invention to provide an adjustable blackboard which is easy of manipulation, simple in construction, inexpensive of production, and can by improved means be readily raised or lowered to suit the convenience of the user.

Having the above object in view, the invention consists of the devices and parts or their equivalents, as hereinafter more fully pointed out.

In the accompanying drawings, Figure 1 is a front elevation of our improvements, a part being broken away. Fig. 2 is a vertical transverse section on the line 2 2 of Fig. 1. Fig. 3 is a horizontal section on the line 3 3 of Fig. 1, and Fig. 4 is a detail.

Referring to the drawings, the numerals indicate two side boxes which extend from the floor or support 6 upwardly for a desired distance. These side boxes are united at their upper ends by a connecting-piece 7, which may also be in the form of a box, as clearly shown in Fig. 2. Mounted in the opposite ends of this connecting-box 7 are pulleys 8 8. Over these pulleys pass cords or equivalents 9 9. These cords extend down into the vertical boxes 5 and are connected to the upper ends of coiled springs 10 10, arranged within said boxes, the lower ends of said springs being connected to screw-eyes 11 11.

The numeral 12 indicates the blackboard, which is advisably surrounded by an ordinary form of frame 13, the lower strip of said frame being provided with an outwardly-projecting ledge 14, which is adapted to support chalk and may also be advantageously used as a hand-grasp. The side pieces of the frame are provided with projecting tongues 15 15,

which are adapted to fit and slide in vertical grooves 16 16, formed in the inner sides of the boxes 5. The upper strip of the frame has screwed therein at opposite ends the eyes 17 17, and to these eyes the ends of the portions of the cords 9, which are outside of the boxes 5, connect.

While we prefer to surround the blackboard with a frame similar to 13, yet it will be understood that, if preferred, this frame may be entirely omitted and the ends of the blackboard proper be extended into the vertical grooves 16 and the cords 9 connected directly to the upper edge of said board.

On the back of the board and intersecting the same medially are series of teeth 18, arranged in a vertical line and forming a rack-bar. Back of the board is also disposed a vertical boxing or casing 19. In this casing is pivoted medially upon a pin 20 a lever 21. The upper end of this lever is provided with a hook, which is adapted to extend through an opening 22 in the front of the boxing 19 to engage any of the series of teeth of the rack-bar 18. The lower end of this lever is provided with a recess 23, into which is adapted to fit the upper rounded extremity of the vertical member of a bell-crank lever 24, which is pivoted within the boxing on a pivot-pin 25. The horizontal member of this bell-crank lever extends through an opening 26 and is in the form of a treadle in convenient position to be operated by the foot. Secured to the bottom of the boxing or casing 19 is a flat spring 27. This spring extends through the opening 26, and its free end is adapted to bear against the under side of the horizontal member of the bell-crank lever.

It will be understood that the coiled springs 10 normally hold the blackboard at the upper end of the framework formed by the side and top boxes or casings. If now it is desired to write on the board and to begin the writing at the upper portion of said board, pressure is exerted upon the foot-treadle, and this will have the effect of turning the lever 21 on its pivot, so as to release its hooked end from engagement with one of the teeth of the rack-bar. The projecting ledge 14 is then grasped by the hand and the board pulled down to the proper position—as, for instance, to the

position shown in Fig. 1. Pressure on the foot-treadle is then removed, and the flat spring 27 will have the effect of automatically turning the lever 21 on its pivot, so as to bring the upper hooked end of said lever again in engagement with one of the teeth of the rack-bar, whereby the board is held to adjusted position. It is obvious from this description that the board can be most quickly and conveniently adjusted to any desired position in the space between the top connecting-piece and the floor.

In order to render the movements of the blackboard as far as possible noiseless, we secure in the grooves in the side boxes 5 felt linings 28, against which the tongues 15 bear.

What we claim as our invention is—

In an adjustable blackboard, the combination, of a frame, the side pieces thereof being in the form of boxes or casings, a blackboard slidable between the side boxes and having a rack-bar formed thereon, coiled springs within said side boxes, cords passing over pulleys and having one of their ends se-

cured to the blackboard and their opposite ends secured to the coiled springs, a vertical boxing or casing, a lever pivoted therein, and having one end passing through an opening in its boxing in order to engage the rack-bar, a spring adapted to normally hold the lever in engagement with the rack-bar, and a bell-crank lever pivoted within the vertical box or casing, and having one end engaging the other lever, and its opposite end passing through an opening in the boxing or casing in position to be operated.

In testimony whereof we affix our signatures in presence of two witnesses.

GUSTAV J. SCHNEIDER.
KARL F. G. BRENNER.

Witnesses as to Schneider's signature:

JOHN SCHOEMER,
MARTIN JURICK.

Witnesses as to Karl F. G. Brenner's signature:

F. A. TOWSLEY,
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