

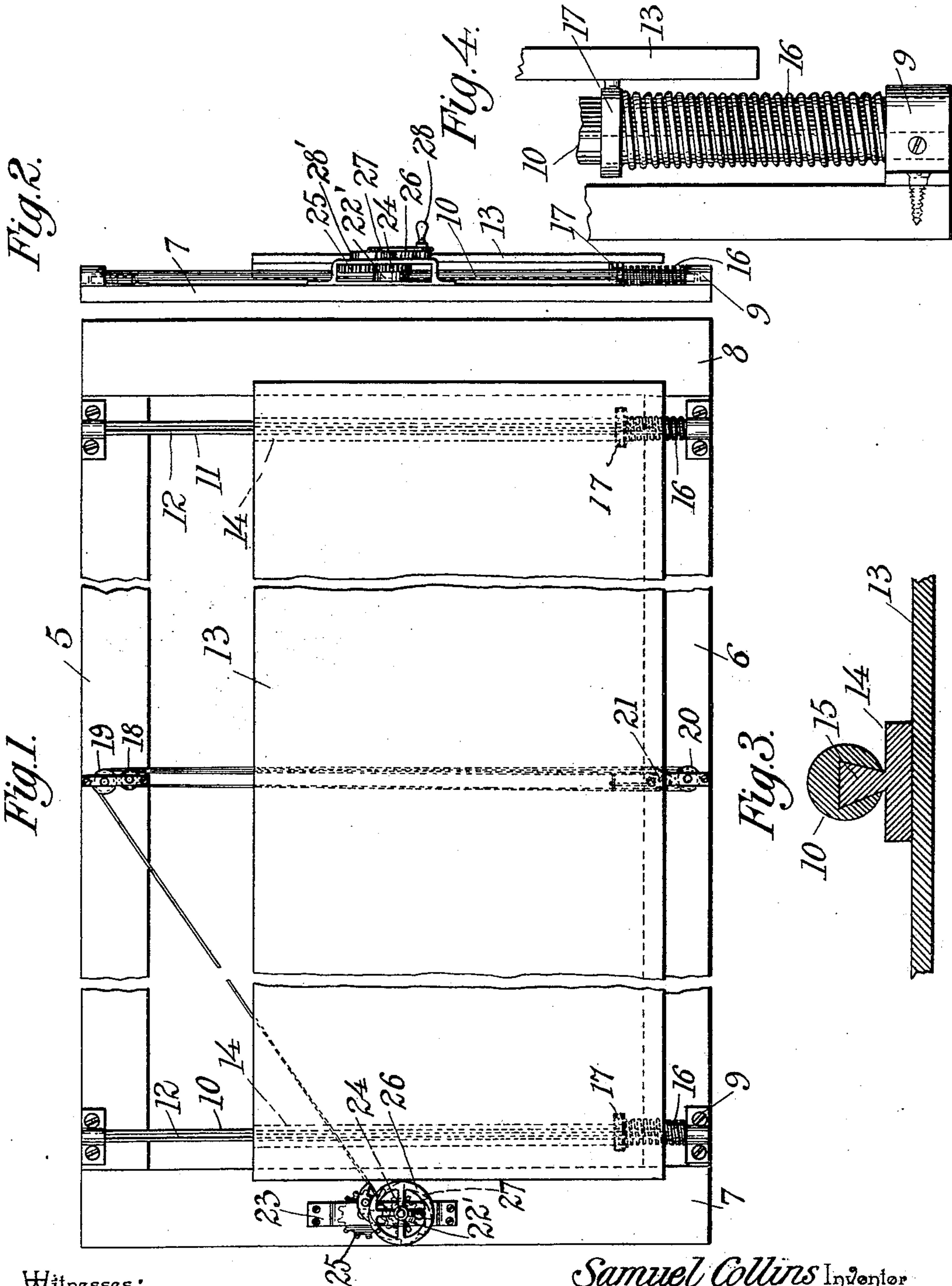
No. 689,539.

Patented Dec. 24, 1901.

S. COLLINS.
BLACKBOARD.

(Application filed Apr. 24, 1901.)

(No Model.)



Witnesses:
J. S. Brown.
Geo. H. Chandler.

Samuel Collins Inventor
by *C. A. Snow & Co.*
Attorneys

UNITED STATES PATENT OFFICE.

SAMUEL COLLINS, OF LANES BOTTOM, WEST VIRGINIA.

BLACKBOARD.

SPECIFICATION forming part of Letters Patent No. 689,539, dated December 24, 1901.

Application filed April 24, 1901. Serial No. 57,285. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL COLLINS, a citizen of the United States, residing at Lanes Bottom, in the county of Webster and State of West Virginia, have invented a new and useful Blackboard, of which the following is a specification.

This invention relates to adjustable blackboards; and it has for its object to provide a device of this nature which may be easily and quickly adjusted to the proper height to suit the conditions under which it is used, further objects and advantages of the invention having reference to the specific construction and arrangement of parts, which will be understood from the following description.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is an elevation showing the board and its supporting-frame with the mechanism for raising and lowering it. Fig. 2 is a side elevation of the structure shown in Fig. 1. Fig. 3 is a transverse section through a portion of the board and one of the guide-posts and showing the dovetail connection therebetween. Fig. 4 is a detail view showing the clip connection between the board and a post and the position of the retaining-spring.

Referring now to the drawings, there is shown a frame including upper and lower beams 5 and 6 and connecting cross-pieces or uprights 7 and 8, and attached to the front faces of the beams by means of the brackets 9 are the posts 10 and 11, which are cylindrical and in the front faces of which are formed longitudinal slots 12, which are broadened inwardly or dovetailed. The board, which is shown at 13, has the battens 14 secured against its rear face and which battens have the longitudinal ribs 15, which are broadened at their rear edges to correspond to the slots 12, in which they are slidably engaged, so that the board may have a vertical movement, while it will be held against outward displacement from the supporting-frame.

The board is held normally and yieldably raised by means of helical springs 16, which are disposed upon the posts and rest with their lower ends against the brackets on the lower beam, while the upper ends of the springs rest against the clips 17, which are engaged with

the board and encircle the posts. These clips also serve as an additional means for preventing outward displacement of the bottom of the board. To lower the board against the tendency of the springs, two pulleys 18 and 19 are secured to the upper beam 5, and two other pulleys 20 and 21 are secured to the lower beam 6. A line 22 is attached to the rear of the board and is taken downwardly and around pulley 20, then upwardly and over pulley 19, then downwardly and around pulley 21, and then upwardly and over pulley 18, from whence it is taken laterally behind the board and beyond the end thereof and is engaged with a winding-drum 22, mounted in a frame 23 upon one of the uprights of the supporting-frame. The winding-drum carries a gear 24, with which meshes a pinion 25 upon a shaft 25', which carries also a crank-wheel 26, provided with a ratchet 27 and with a handle 28. By rotating the crank-wheel the winding-drum is rotated to wind up the line and lower the board, and when the crank-wheel is released the resiliency of the springs returns the board to its raised position. Thus by holding the crank-wheel at the proper point the board may be held at a corresponding elevation. To thus hold the crank-wheel, a pawl 28 is provided and is pivoted on the frame of the winding-drum and which pawl is adapted for engagement with the ratchet on the crank-wheel. If the crank-wheel be rotated to lower the board, the springs will be compressed, as above stated, and it is then only necessary to release the ratchet by pressing upon the outer end of the pawl to raise its engaged end, when the crank-wheel will turn and will permit the winding-drum to rotate to release the line and permit the board to rise.

It will be understood that in practice modifications of the specific construction shown may be made and that any suitable materials and proportions may be used without departing from the spirit of the invention.

What is claimed is—

1. In a device of the class described, the combination with a supporting-frame including posts having dovetail grooves, of a board having dovetail ribs slidably engaged with the grooves, clips carried by the board and encircling the posts, springs disposed upon

the posts and bearing against the frame and clips, and means for moving and holding the board against the tendency of the springs.

2. A device of the class described comprising
5 ing a frame including posts having longitudinal grooves which are broadened inwardly, a board having ribs which are broadened outwardly and slidably fitted in the grooves, clips engaged with the board and encircling
10 the posts, helical springs upon the posts and bearing against the clips to hold the board yieldably in raised position, pulleys upon the frame, a line engaged with the board and passed around the pulleys to move the board
15 against the tendency of the springs, a winding-drum to which the line is connected to be

wound thereon, a crank-wheel geared to the winding-drum and provided with a handle, a ratchet carried by the wheel, and a pawl in operative relation to the ratchet, said pawl 20 having a finger-piece for engagement to move the pawl from the ratchet to permit the board to move under the influence of the springs.

In testimony that I claim the foregoing as 25 my own I have hereto affixed my signature in the presence of two witnesses.

SAMUEL COLLINS.

Witnesses:

G. F. WILKINS,
R. C. FERGUSON.