

No. 815,974.

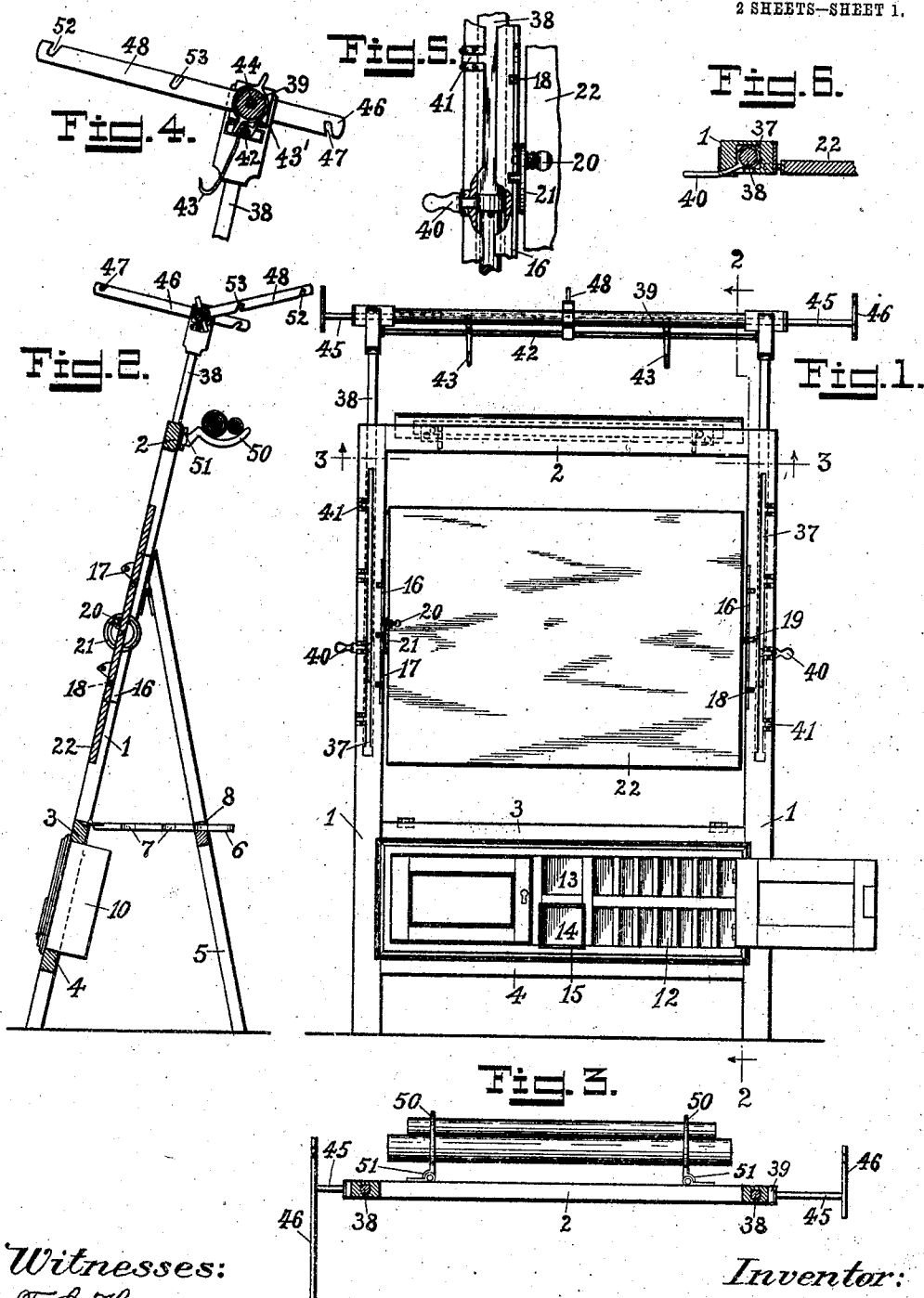
PATENTED MAR. 27, 1906.

M. NACKEN.

BLACKBOARD TRESTLE WITH ADJUSTABLE MAP DISPLAYER
AND ROLL SUPPORT.

APPLICATION FILED APR. 18, 1905.

2 SHEETS—SHEET 1.



Witnesses:
F. G. Harder.
Jos. Schmitz

Inventor:
Mathias Nacken
per Martin Schmitz
Attorney

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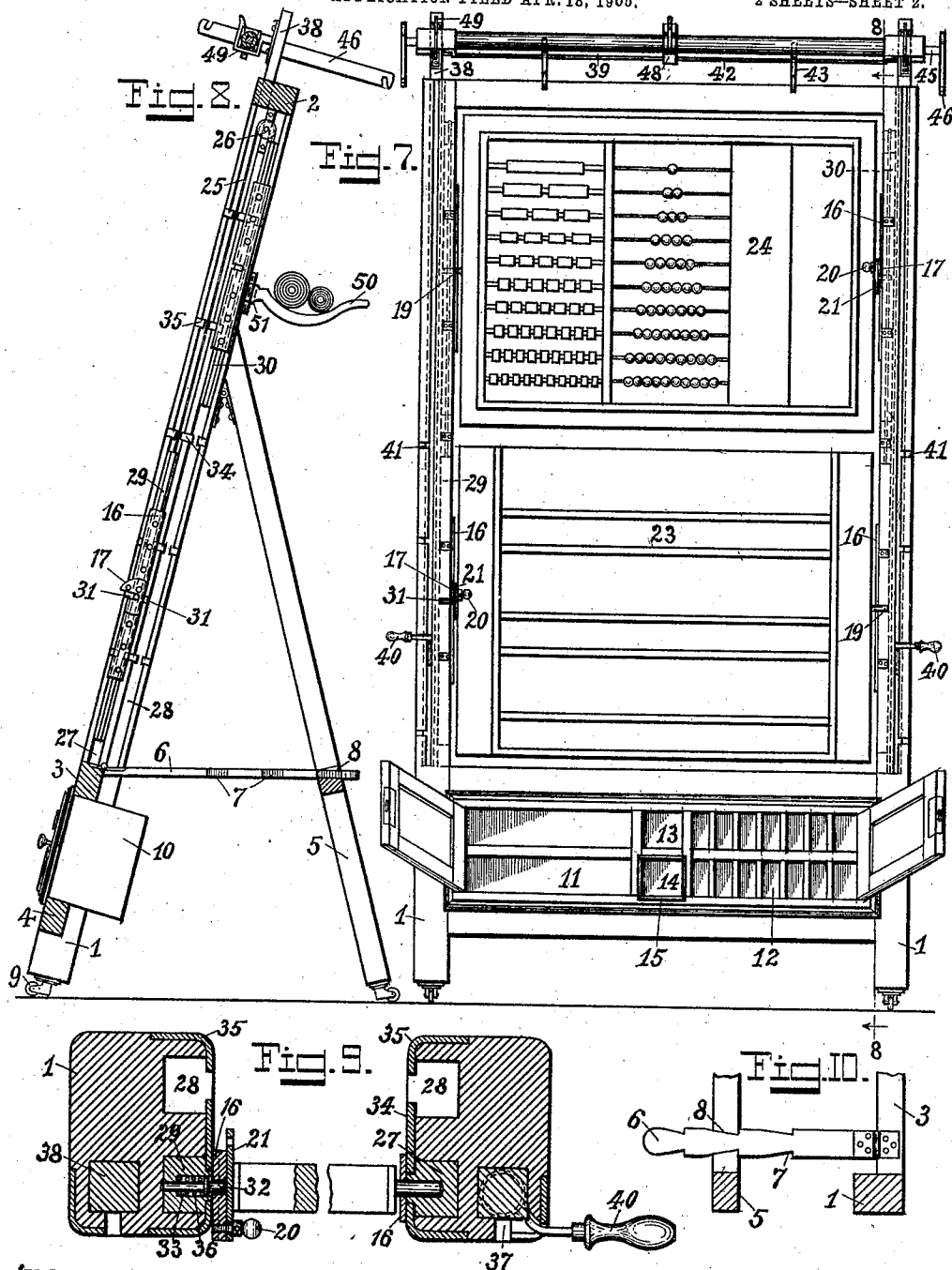
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UNITED STATES PATENT OFFICE.

MATHIAS NACKEN, OF WÜRSELEN, NEAR AIX-LA-CHAPELLE, GERMANY.

BLACKBOARD-TRESTLE WITH ADJUSTABLE MAP-DISPLAYER AND ROLL-SUPPORT.

No. 815,974.

Specification of Letters Patent.

Patented March 27, 1906.

Application filed April 18, 1905. Serial No. 256,316.

To all whom it may concern:

Be it known that I, MATHIAS NACKEN, printer and bookbinder, a subject of the King of Prussia, German Emperor, residing at Würselen, near Aix-la-Chapelle, in the Kingdom of Prussia, Empire of Germany, have invented certain new and useful Improvements in Blackboard-Trestles with Adjustable Map-Displays and Roll-Supports; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My present invention relates to blackboard-trestles; and the object in view is to provide a blackboard-trestle with adjustable means capable of displaying maps of various sizes and also with means for supporting the maps when not displayed.

By means of this improvement not only an extra trestle for the display of maps but also an especial shelf for the accommodation of the maps when not in actual use are superfluous, and besides this much valuable space is saved thereby.

In the accompanying drawings, Figure 1 is a front elevation of a blackboard-trestle provided with my improvements. Fig. 2 is a sectional view taken on line 2 2 of Fig. 1. Fig. 3 is a sectional view taken on line 3 3 of Fig. 1. Figs. 4, 5, and 6 are showing details of construction on a larger scale. Fig. 7 is a front elevation of another blackboard-trestle, showing a modification of my improvements. Fig. 8 is a sectional view taken on line 8 8 of Fig. 7. Figs. 9 and 10 are showing details of construction on a larger scale.

The illustrated blackboard-trestles are in both cases consisting of side posts 1, united by the cross-bars 2, 3, and 4, and of a frame 5, hinged to the rear of said side posts. In order to allow of the blackboard-trestle being set at different slants, two lock-bars 6 are hinged to the cross-bar 3 and provided with indentions 7 of such shape that when the lock-bars are pressed into the notches 8 of the cross-bar of frame 5 the trestle is securely held in the desired position. Trestles for larger or double blackboards are preferably provided with casters 9, as indicated in Figs. 7 and 8. Between the cross-bars 3 and 4 a box 10 is removably held, containing the lockable compartments 11 and 12 for the reception of letters for reading-machines and other small articles used in a school-room,

and two open receptacles 13 and 14, of which the upper one is destined for the handy reception of chalk, whereas the lower one is containing a tin box 15 for the reception of sponges.

In Fig. 1 the inner faces of the side posts 1 are armed with plates 16, having projections 17 and downwardly-arranged slots corresponding with slots 18, opening in the front of the side posts 1. The slots 18 are serving for the reception of the pintles 19 of a blackboard, which may be easily replaced by a counting-machine or by a reading-machine by removing the thumb-screw 20 passing through a slotted disk 21, secured to the blackboard 22, and screwed into one of the projections 17.

As shown in Figs. 7 and 8, the blackboard 22 of Figs. 1 and 2 is here replaced by a reading-machine 23 and a counting-machine 24, connected by cords, chains, or the like 25, running over disks 26. The inner faces of the side posts 1 are for this purpose provided with longitudinal grooves 27 and 28, in which slide-blocks 29 and 30 are held and to which said cords 25 are secured. The slots 18, arranged in Fig. 1 directly in the face of the side posts 1, are here arranged in the slide-blocks 29 and 30, into which the pintles of the reading-machine and of the counting-machine are inserted through the slots 31. (See Fig. 8.) In all other respects these machines may be secured in any desirable position to the slide-blocks 29 and 30, as the blackboard 22 to the side posts 1 of Figs. 1 and 2; but as these machines are movably held artificial friction must be employed to hold them securely in any desirable position. To this end the projections 17 of two of these slide-blocks are perforated for the reception of the outer end of pins 32, arranged within a recess 33 in the slide-block 29 at the left-hand side and in a similar recess in the slide-block 30 at the right-hand side of the trestle. Normally the outer end of each of said pins is projecting over the face of the projection 17; but when the thumb-screw 20 is screwed home the inner end of the pin 32 will be pressed against the bottom of the groove, and thus press the outer face of the slide-block containing said pin against the plates 34 and angle-irons 35, retaining said slide-block in the groove guiding it. As soon as the thumb-screw 20 is unscrewed the spring will retract the pin 32, so that the slide-block can be freely moved again.

In order to make these trestles suitable for the display of maps and the like, each side post 1 is provided with a longitudinal guide-slot 37, of T-shaped cross-section, independent of the grooves 27 and 28 and opening wholly or partly in the face of the side post 1. In these guide-slots rectangular slide-bars 38 are arranged, whose free ends are united by a tubular cross-head 39. To fix these bars 38 at different heights, their lower ends are of cylindrical shape for the reception of the eyes of handles 40, which may be inserted into any of the notches 41, arranged at different heights in the outer corners of the side-post faces. Below the cross-head 39 a rod 42 is arranged, upon which hooks 43 are placed for the reception of maps, having but a cord secured to their upper pole, or for the suspension of pictures, drawings, or the like. These hooks are shown on a larger scale in Fig. 4, where plainly may be seen how these hooks are prevented from rotating by their upper lugs 43' when said hooks are carrying a map or the like. The cross-head 39 is provided with a rectangular bore 44 running through from end to end, in which correspondingly-shaped draw-bars 45 may be inserted. To the outer end of each of these draw-bars is secured a cross-bar 46 in such a manner as to form arms of unequal lengths, of which each is provided with a hook-forming notch 47 for the reception of a pintle of the upper map-pole. On the cylindrical middle part of the cross-head 39 an auxiliary arm 48 is arranged in such a manner as to be swung out of the way when maps of a greater width than the length of the cross-head are to be displayed, whereas maps of the same or of a lesser width than the length of said cross-head can be displayed with the aid of one of said draw-bars and the auxiliary arm 48. From the above it will be seen that all the different parts carried by the slide-bars 38 are forming the map-displayer proper.

When the trestle is very high, so that it is impossible to conveniently reach the top thereof, the cross-head 39 must be differently connected with the slide-bars 38 as when the trestle is low. To this end the narrow part of the slots 37 opening in the face of the side posts 1 must run through to the top of the latter to let the brackets 49 pass, which are secured to the slide-bars 38 and by which the tubular cross-head 39 is firmly held. (See Figs. 7 and 8.) As in this arrangement of the cross-head the rod 42 cannot be secured between the slide-bars 38, as shown in Figs. 1 and 2, it is attached directly to the lower side of the cross-head.

To provide a convenient storage-place for the maps not in actual use, brackets or supports 50 are secured to the rear of the trestle, either to the upper cross-bar 2, as shown in Fig. 2, or to the side posts 1, as indicated in Fig. 8. For convenient shipment of these

trestles the supports 50 are made foldable toward each other, but cannot be swung outwardly on account of the noses 51. Besides being used for the reception of rolled-up maps these supports may also be employed for supporting rolls of drawing-paper and the like.

If, for instance, a long and wide map is to be displayed, the draw-bars 45 are drawn out until the pintles of the upper map-pole can be placed in the notches 47 of the cross-bars 46, whereupon the slide-bars 38 are raised to the right height after the shanks of the handles 40 have been turned at right angles to the faces of the side posts. The handles being brought opposite the desired notches 41 are turned outward into said notches, thus securing the map-displayer with the map held thereby at the desired height. If the map has to hang vertically and this end cannot be attained by the shorter arms of the cross-bars 46, the longer arms must be turned to the front and the map attached thereto, and if this does not suffice the lock-bars 6 must be readjusted to give the whole trestle a steeper slant.

If maps of equal or lesser width than the length of the cross-head are to be displayed, one of the pintles of the upper map-pole is placed in the notch of one of the cross-bars 46, whereas the other pintle is placed in the corresponding notch of the auxiliary arm 48 after being moved to the right position on the cross-head 39. To make the auxiliary arm 48 just as well do when the longer arms of the cross-bars 46 are employed as when their shorter arms are in use, it is provided with the notches 52 and 53, of which the notch 52 corresponds with the notch of the longer arm and the notch 53 with the notch of the shorter arm of any one of said cross-bars 46.

I claim—

1. A blackboard-trestle, comprising in combination braced side posts, longitudinal guide-slots therein, a map-displayer, slide-bars of said map-displayer movably held in said guide-slots, means for securing the map-displayer to the side posts at different heights, a cross-head uniting the free ends of said slide-bars, draw-bars held by said cross-head and provided with hooked arms, an auxiliary hooked arm loosely mounted on said cross-head, a rod beneath said cross-head to sustain said auxiliary arm in two different positions, hooks slidably arranged upon said rod, extensions on said hooks pressing against said cross-head to prevent said hooks from rotating, and foldable roll-supports secured to the rear of the trestle for supporting rolled-up maps.

2. In a blackboard-trestle of the kind described, in combination, braced side posts, T-shaped guide-slots therein opening in the face of said side posts, a map-displayer, slide-bars of said map-displayer movably arranged in said guide-slots, a tubular cross-head uniting

the free ends of said slide-bars, rotary handles on the lower ends of said slide-bars for securing the map-displayer to the side posts at different heights, draw-bars of rectangular cross-section held by said tubular cross-head and provided with supporting-arms of unequal lengths, an auxiliary arm rotatorily and slidingly mounted on said tubular cross-head, a rod beneath said cross-head to sustain said auxiliary arm in its working position and to keep it out of the way when the cross-bars of both draw-bars are simultaneously employed, hooks slidingly arranged on

said rod, extensions on said hooks bearing against said cross-head to prevent said hooks from rotating, and foldable roll-supports secured to the rear of the trestle for supporting rolled-up maps when not in actual use.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MATHIAS NACKEN.

Witnesses:

HENRY QUADJLIEG,
GERARD OELLERS.