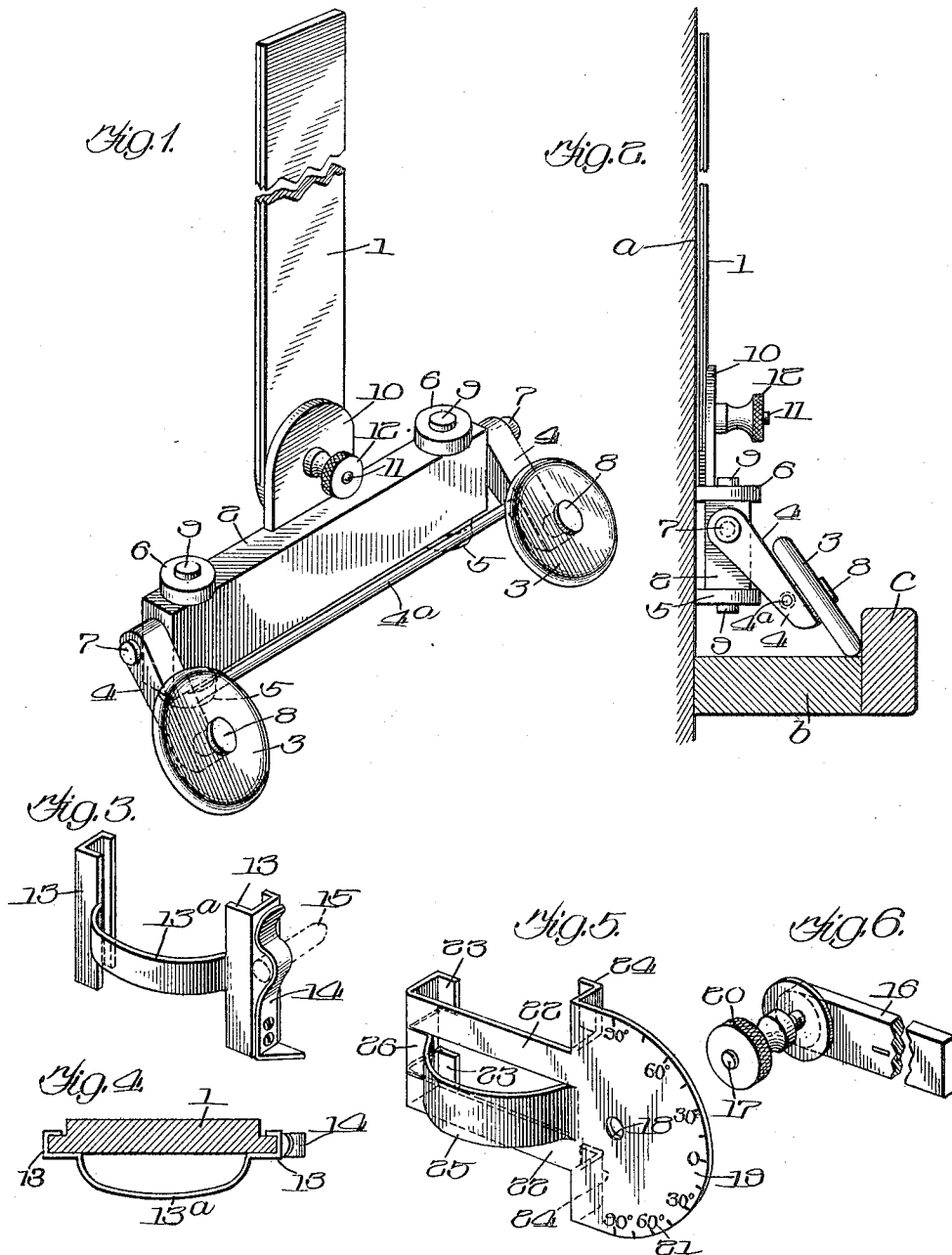


A. W. MOSELEY.
TRAVELING RULE.
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Patented Aug. 18, 1914.



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UNITED STATES PATENT OFFICE.

ALEXANDER W. MOSELEY, OF EVANSTON, ILLINOIS.

TRAVELING RULE.

1,107,340.

Specification of Letters Patent.

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Application filed May 29, 1913. Serial No. 770,598.

To all whom it may concern:

Be it known that I, ALEXANDER W. MOSELEY, a citizen of the United States, residing at Evanston, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Traveling Rules, of which the following is a specification.

My invention relates to traveling rules especially rules designed to be used in connection with blackboards, easels, and the like.

The objects of my invention are: first, to provide a rule which will automatically accommodate itself to dust or crayon trays of various shapes and construction and enable the rule to travel horizontally with ease and facility: second, to provide a construction such that the rule will be held securely in upright position close to, but not necessarily in actual contact with, the face of the blackboard or easel: third, to provide means whereby the straight edge of the rule may be adjusted to any desired angle and travel parallel to itself along the face of the board: fourth, to provide a crayon holder which is adjustable lengthwise of the straight edge or rule proper: fifth, to provide means for carrying an auxiliary straight edge projecting at any desired angle from the main straight edge and adjustable to any desired elevation upon the main straight edge; and sixth, to provide certain details of construction which will be hereinafter described and claimed.

I accomplish my objects by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a general perspective view of a device embodying my invention. Fig. 2 is a side elevation thereof showing it in acting position. Fig. 3 is a perspective view of the crayon holder. Fig. 4 is a plan view of the crayon holder illustrating its position upon the rule. Fig. 5 is a perspective view of the support for the auxiliary straight edge, and Fig. 6 is a perspective view of the auxiliary straight edge.

Similar numerals refer to similar parts throughout the several views.

In the form which I have selected to illustrate the invention the truck which supports the straight edge 1 is composed chiefly of the truck body 2, guide rollers 3, arms 4, lower antifriction rollers 5 and upper antifriction rollers 6. The arms 4 are pivotally con-

nected to the ends of body 2 by the studs 7 so that said arms are free to swing in vertical planes disposed perpendicularly to the face of the blackboard. Said arms are preferably connected together by a rod 4^a. Rollers 3 are journaled upon studs or axles 8 carried by said arms. The antifriction rollers 5 and 6 are mounted upon vertical studs or axles 9 carried by the truck body and enable the truck body to travel freely upon the surface of the blackboard and at the same time rest firmly thereon.

Rising from body 2, preferably at a point midway between the ends thereof, is a lug or bracket 10 for supporting the straight edge 1. As here shown this lug is in the form of a plate which is let into the back of the truck body, the parts being so proportioned that said straight edge, which is secured to the rear of the bracket, will normally stand just out of contact with the surface of the blackboard. The straight edge is adjustably connected to bracket 10 by means of a threaded stud 11 which is rigidly secured to the straight edge and projects through the bracket, at the front of which is a nut 12, the head whereof is preferably knurled or otherwise adapted to be manipulated by the fingers of the user.

The operation of the parts thus far described will be best understood by reference to Fig. 2 of the drawings, in which the blackboard *a* is shown to be provided, as usual, with a crayon tray or trough *b*, at the front of which is located a flange *c*. In Fig. 2 these parts are shown in section on a plane perpendicular to the face of the board. When the user is ready to place the device in operative position he places the rollers 5, 6 in contact with the face of the board and places the rollers 3 in the corner formed by the junction of the tray bottom *b* and flange *c*. Little care need be taken in thus placing the parts for the construction is such that they will automatically adjust themselves to the respective surfaces upon which they are to travel. This is due to the novel arrangement of parts which are so constructed that the action of gravity tends to hold the rollers 5 and 6 in close contact with the face of the board and also to hold the guide rollers 3 in close contact with both the bottom board *b* and the flange *c*. The reason is that the center of gravity of the truck body and

parts supported thereon is nearer the face of the board than the point where the rollers 3 contact the tray which supports them. Consequently the tendency is for all the rollers to be constantly held in close contact with their supporting surfaces. Therefore, the truck will, within reasonable limits, accommodate itself to trays of different widths. The weight of the truck and parts appended thereto is sufficient to furnish a firm mounting for the straight edge.

If it is desired to rule a number of parallel oblique lines the rule may be adjusted to the proper angle by first backing off the nut 12 and then retightening it after the straight edge has been brought to the proper angle of inclination. As the straight edge is normally kept out of contact with the surface of the board it is free to travel laterally, but on account of its close proximity to the board it may be brought into actual contact therewith at any time by exerting a very slight pressure against the front of the straight edge. As a result of my construction the device will accommodate itself to trays of various sizes and configurations and when the device is no longer needed it may be pushed to one side or completely taken away, as desired. It will be noted that the device is in no wise fastened to the blackboard or tray and is supported entirely from the bottom, thus dispensing with the need of any special overhead construction.

It may be desirable at times to draw one or more horizontal lines upon the blackboard or easel and for this purpose I have provided a crayon holder shown in Figs. 3 and 4. In the preferred form this holder consists of a single piece of sheet metal having two lateral guides 13 connected by a cross arm 13^a. The guides 13 engage the lateral edges of the straight edge, as best shown in Fig. 4, and by preference in order to hold the guides out of contact with the board the edges of the straight edge are rabbeted at the back, as illustrated. The cross arm 13^a is resilient and bowed in such manner as to create a moderate amount of friction between the guides and the edges of the straight edge so that the crayon holder will maintain itself at any height to which it is adjusted. Said arm 13^a also affords convenient means by which the crayon holder may be manipulated. At one side of the crayon holder is mounted a spring clip 14 for holding the crayon 15. When the crayon holder and crayon are in position a horizontal line may be drawn upon the board by merely causing the truck and its supported parts to travel along the tray of the blackboard.

I have provided means whereby the user is enabled to draw lines which are not horizontal and yet are too near the horizontal to

render it practical to use the principal straight edge 1. These parts are shown in Figs. 5 and 6. The auxiliary straight edge 16 has a screw stud 17 rigidly secured thereto and projecting forward to pass through the aperture 18 provided for it in the carrier 19. The arm may be set at any desired angle upon said carrier by tightening the nut 20 which screws upon said stud. Said carrier is preferably composed of a single piece of sheet metal stamped in the form shown, the body of the carrier being flat and provided at its semicircular edge with a scale 21. Extending to the left of the body of the carrier are two cross arms 22 provided at their outer ends with guides 23 for engaging the rabbeted edges of the main straight edge 1 in the same manner as the crayon carrier 13. Guides 24 are formed upon the body of the carrier to cooperate with the guides 23 and hold the main straight edge between them. A bowed cross arm 25 is also desirable, this being resilient and bearing at the end 26 upon the main straight edge and creating sufficient friction to hold the carrier at any elevation to which it may be adjusted. The arm 25 also affords a convenient means for manipulating the carrier and moving it up or down to the desired elevation.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. A traveling ruler for black boards, said ruler comprising an upstanding straight edge, a truck body adapted to travel along the vertical surface of the black board, an arm pivoted to said truck body and a roller mounted upon said arm.

2. A traveling ruler for black boards, said ruler comprising an upstanding straight edge and a truck at the lower end thereof for supporting it, said truck having a body, rollers mounted on said body and adapted to roll upon the vertical surface of the black board, arms pivoted to said body and rollers mounted on said arms.

3. In combination, a straight edge, a truck body whereon said straight edge is carried, antifriction rollers enabling said truck body to roll upon a vertical surface, arms pivoted to said truck body and free to swing upon their pivots and rollers mounted at the free ends of said arms.

4. A traveling ruler for black boards comprising a truck body, a straight edge mounted on said truck body, anti-friction rollers enabling said truck body to travel upon the vertical surface of a black board, guide rollers and studs for said guide rollers connected to said truck body and movable relatively thereto, the axis of the guide rollers being normally inclined to the axes of the anti-friction rollers.

5. A traveling ruler for black boards com-

prising a truck body, a straight edge mounted on said truck body, at least three antifriction rollers mounted upon said truck body and adapted to travel upon the vertical surface of the board for holding the truck body in vertical position, movable arms connected to and extending from said truck body, and a guide roller mounted upon each of said arms, the axes of the guide rollers being normally inclined to the axes of the antifriction rollers.

6. A traveling ruler for black boards comprising a truck body, a straight edge mounted on said truck body, at least three antifriction rollers mounted upon said truck body and adapted to travel on the vertical surface of the board, a plurality of arms pivoted to said truck body and free to swing on their pivots, guide rollers mounted at the free ends of said arms and a cross rod connecting said arms to cause them to swing in unison about their pivots.

7. A traveling ruler for black boards, said ruler comprising a truck body, a straight edge pivoted to said body, means for securing said straight edge at various angles relatively to said truck body, means for supporting said truck body upon the vertical surface of the black board, arms articulately

connected to said truck body and guide rollers mounted upon said arms and rotating upon axes normally inclined to the surface of the black board.

8. A traveling ruler for black boards, comprising a truck body, antifriction rollers for causing said body to travel on the vertical surface of the board, a guide roller for holding said antifriction rollers in contact with the board and a straight edge mounted upon said truck body and arranged to lie parallel to the surface of the board at a slight distance therefrom.

9. A traveling ruler for black boards comprising a truck adapted to roll upon the vertical surface of the board, a straight edge mounted upon said truck, arms articulately connected to said truck body and capable of extending obliquely forward and downward from the truck body and a roller at the free end of each arm.

In witness whereof, I have hereunto subscribed my name in the presence of two witnesses.

ALEXANDER W. MOSELEY.

Witnesses:

HOWARD M. COX,
MAX S. ROSENZWEIG.