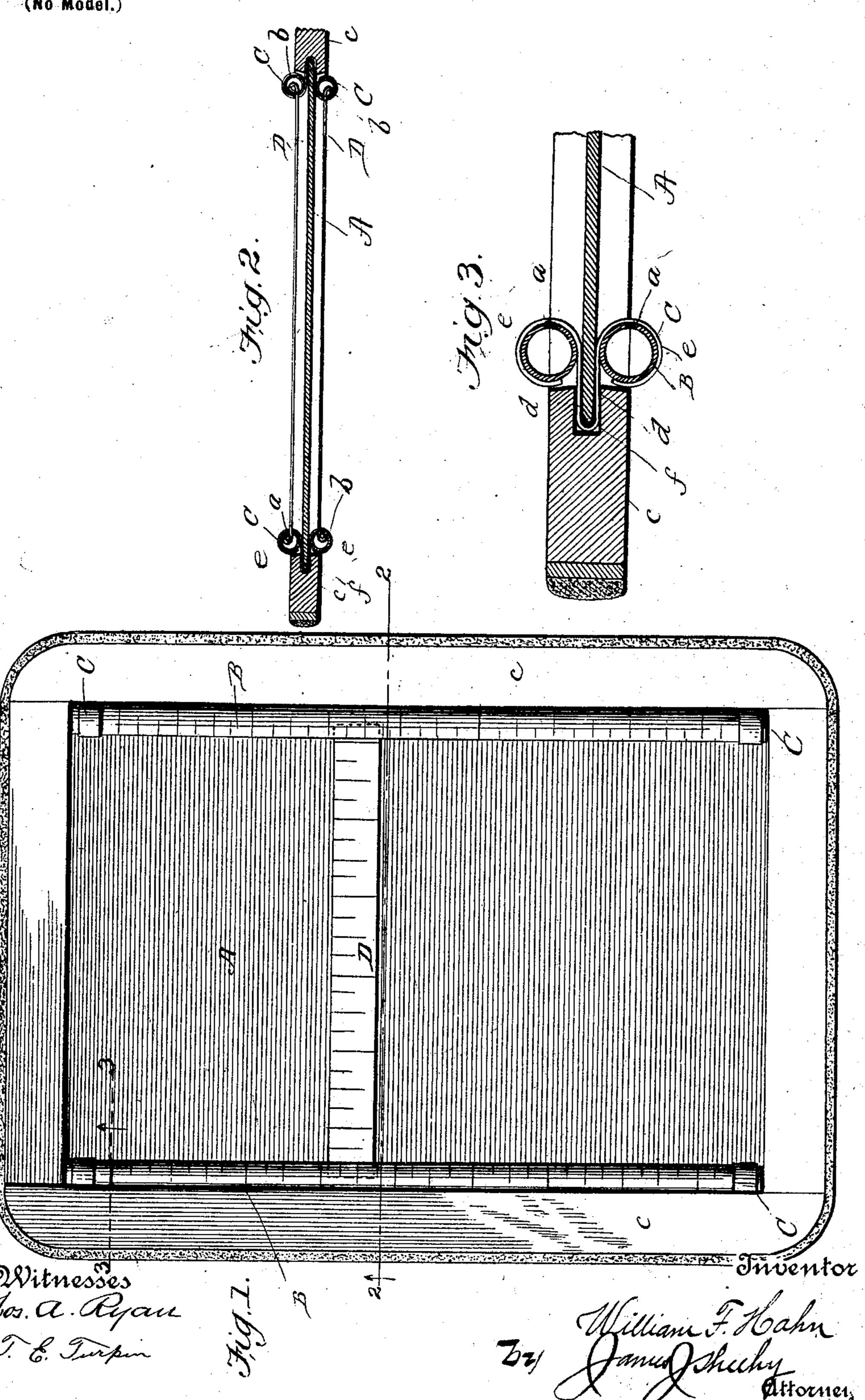
W. F. HAHN. SLATE.

(Application filed Aug. 31, 1901.,

(No Model.)



United States Patent Office.

WILLIAM FRED HAHN, OF PENSACOLA, FLORIDA.

SLATE.

SPECIFICATION forming part of Letters Patent No. 693,388, dated February 18, 1902.

Application filed August 31, 1901. Serial No. 74,006. (No model.)

To all whom it may concern:

Beitknown that I, WILLIAM FRED HAHN, a. citizen of the United States, residing at Pensacola, in the county of Escambia and State 5 of Florida, have invented new and useful Improvements in Slates, of which the following

is a specification.

This invention relates to improvements in slates; and it has for its object to provide a ro slate with a cheap and simple means for holding a straight-edge or ruler and guiding the same over the face of the slate, so that true and parallel lines may be drawn thereon, such improved means being so constructed as to 15 be attached on both sides of the slate when desired and readily applied to slates such as at present in use without in any manner altering or impairing their construction.

Other objects and advantages will appear 20 from the following description and claims when taken in connection with the annexed

drawings, in which—

Figure 1 is a face view of a slate with my improvements applied. Fig. 2 is a cross-sec-25 tional view taken in the plane indicated by the dotted line 2 2 on Fig. 1, and Fig. 3 is an enlarged sectional view taken at the point indicated by the dotted line 3 3 in Fig. 1.

Referring by letter to said drawings, A in-30 dicates a slate, which may be of any ordinary or approved make—such, for instance, as the

slates used in school-houses.

My improvements comprise longitudinallydisposed guides B, fasteners C for holding the 35 guides to the slate-frame, and a transverselydisposed and longitudinally-movable straightedge or ruler D. The guides B are here shown as of tubular form in cross-section and may be composed of sheet metal or other suitable 40 material, although such guides need not be of tubular form, as it is only necessary to have a groove in them to receive and guide the ends of the ruler. Each guide is provided with a longitudinal slot a to receive the ends b of 45 the ruler D. In making this ruler of sheet metal the ends may be flanged, as shown, so as to prevent the same from casually coming out of the slots a. Should the ruler be made of other material, it is simply necessary to 50 provide its ends with a lug or shoulder to retain such ends in the slotted guides. I place one guide B on the face of the slate A and |

contiguous to the inner longitudinal edges of the sides c of the slate-frame, the ruler D being disposed across the face of the slate, so as 55 to have its ends take into the slots or grooves of the guides B and be moved longitudinally over the slate. The guides are slotted on their inner opposite sides longitudinally to receive the ends of the ruler, and such guides have 60 graduations, as shown, so as to insure the drawing of parallel lines, and the ruler is also preferably provided with graduated marks, so that a line of any desired dimensions may be drawn on the slate.

The fasteners for the guides are preferably composed of sheet metal, although other suitable material may be used for the purpose. In employing sheet metal I take a narrow strip of sufficient length and form the same 70 into substantially the letter A—that is to say, I bend the same about midway of its length, so as to form two parallel branches d, and then carry the ends oppositely, upwardly, and inwardly or in rolls or curls, as shown at 75 e, to embrace the guides B. The bend f, which is formed by the branches d, is placed over the longitudinal edges of the slate A, so as to straddle the same and have one roll or curl e on each side of said slate. The side 80 bars or strips c are then placed over the longitudinal edges of the slate, with their kerfs over the loops of the holders, and such longitudinal strips or bars are then secured to the cross-bars or end pieces of the slate in 85 the usual manner. It will thus be seen that the holders and also the guides carried thereby will be secured to the slate without any other means than that employed to secure the frame to the slate, and such improvements 90 may be applied to slates at present on the market by simply removing the side strips or bars and then replacing the same after the holders have been placed over the longitudinaledges of the slate. While I have described 95 very minutely and in detail the construction here shown, I do not wish to be understood as limiting myself to such precise construction and arrangement of parts—as, for instance, the guides may be secured to the outer 100 longitudinal ends of the slate by other means than the one shown—and while I have shown guides on opposite sides of the slate I do not wish to be confined to this duplication, as I

may in some cases place the guides but on one side. It is also obvious that the guides may be of angular form in cross-section instead of tubular, and other modifications may be made without departing from the spirit of my invention.

Having described my invention, what I claim, and desire to secure by Letters Patent,

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10 1. The combination with a slate of slotted guides, fasteners for the said guides and a straight-edge or ruler held by the guides; the fasteners being constructed to engage the longitudinal edges of the slate and be received by the kerfs of the side bars or strips

thereof, substantially as specified.

2. The combination with a slate; of the holders having the loop to straddle the longitudinal edges of the slate and be held thereson by the side strips of the frame, and also having the curls to receive the guides, and a straight-edge or ruler held by the guides, substantially as specified.

3. The combination with a slate, of slotted guides arranged parallel on the face of the 25 slate, holders for said guides having one end bent or looped to straddle the longitudinal edges of the slate, and the side bars or strips of the slate-frame receiving such holders in their kerfs or grooves, substantially as speci- 30 fied.

4. A slate having a frame, slotted guides arranged on the face of the slate adjacent to opposite edges thereof, a straight-edge or ruler having its ends arranged in the slots of 35 the guides, and holders for the guides interposed and held between the slate and its frame.

In testimony whereof I have hereunto set my hand in presence of two subscribing wit- 40 nesses.

WILLIAM FRED HAHN.

Witnesses:

R. H. PFEIFFER,
JACOB LEVY.