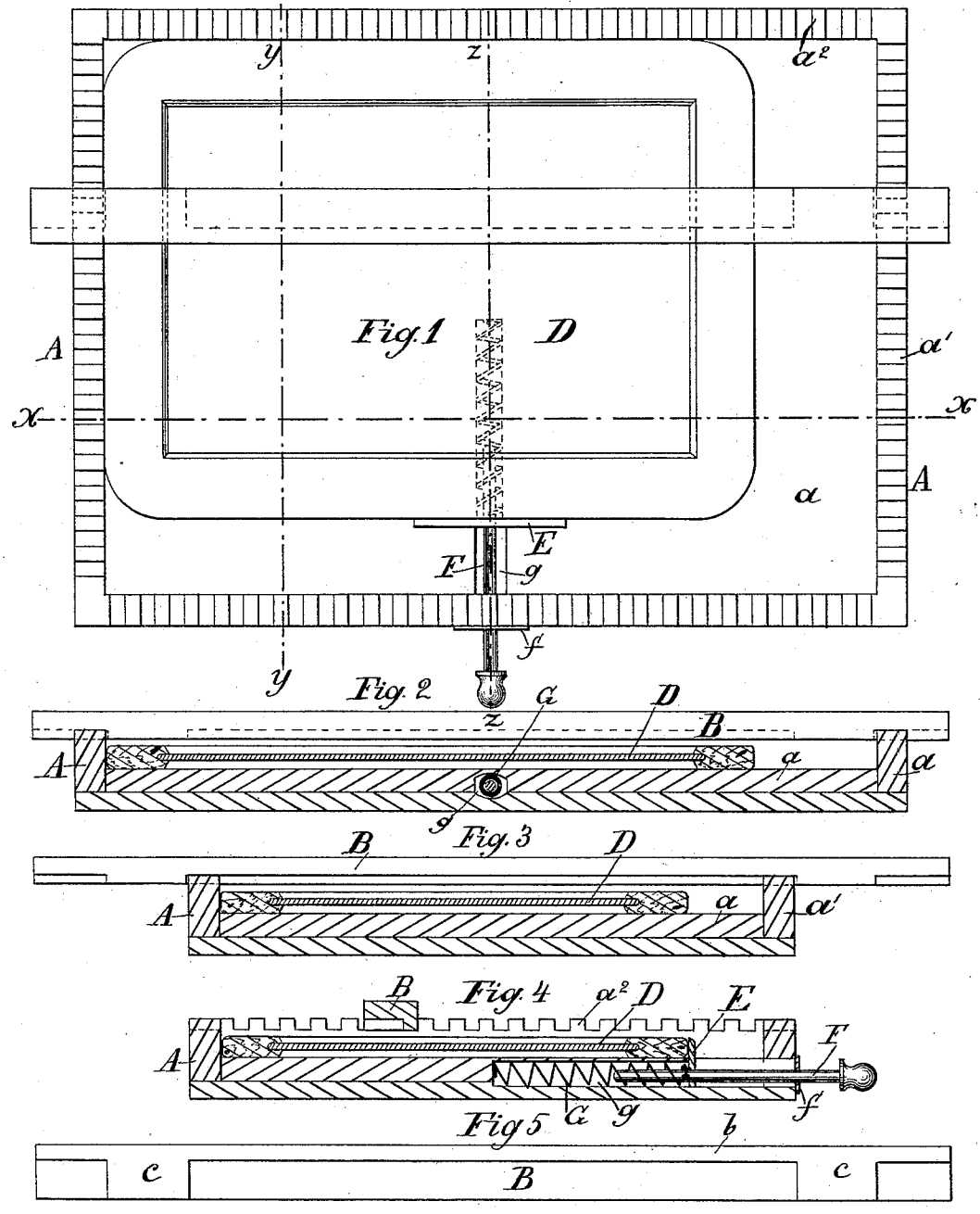
(No Model.)

O. ORTELL &. W. ROTTMANN.

FRAME FOR RULING SLATES.

No. 408,387. Patented Aug. 6, 1889.



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UNITED STATES PATENT OFFICE.

OTTO ORTELL AND WILLIAM ROTTMANN, OF UNION, NEW JERSEY.

FRAME FOR RULING SLATES.

SPECIFICATION forming part of Letters Patent No. 408,387, dated August 6, 1889.

Application filed November 9, 1888. Serial No. 290,373. (No model.)

To all whom it may concern:

Be it known that we, OTTO ORTELL and WILLIAM ROTTMANN, both of Union, in the county of Hudson and State of New Jersey, have invented a new and useful Improvement in Frames for Ruling Slates, &c., of which the following is a specification.

We will describe a frame for ruling slates and other articles in detail, and then point out the novel features in claims.

In the accompanying drawings, Figure 1 is a plan or top view of a frame for ruling slates, &c., embodying our improvement. Fig. 2 is a longitudinal section thereof, taken on the plane of the line *x x*, Fig. 1. Fig. 3 is a transverse section taken on the line *y y*, Fig. 1. Fig. 4 is also a transverse section, but taken on the line *z z* of Fig. 1, and showing a certain ruler in a different position than that shown in Fig. 2. Fig. 5 is a detail view of the ruler taken from the under side of the same.

Similar letters of reference designate corresponding parts in all the figures.

We have illustrated a frame for ruling in combination with an ordinary school-slate; but it will be clear before the description thereof is concluded that it may be used for ruling bristol-board or any other article upon which it is desired to delineate straight lines or square figures.

A designates the frame. It is provided with a bottom *a* and with raised side edges *a'*. These raised side edges *a'* of the frame are provided upon their upper sides with notches a^2.

B designates the ruler. The form of this ruler is shown more clearly in Fig. 5 and partially in dotted outline in Fig. 1. It will be observed that its under side is provided with a longitudinally-extending rib *b* along one of its sides. Inward from the ends of the ruler, however, said rib is continued across the bottom of the ruler, as indicated at *c c*. The rib *b* of the ruler is adapted to fit within the notches a^2 of the frame, and when thus placed upon the frame all lateral movement of the ruler will be prevented. The notches a^2 are upon all four sides of the frame and are so constructed that the notches upon the ends of the frame will be parallel with a straight line drawn lengthwise of the frame, while the notches upon the sides of the frame would be parallel with a straight line drawn widthwise of the frame. It will thus be seen that according as the ruler is placed lengthwise of the frame or widthwise thereof, with its rib *b* engaging opposite notches a^2, it presents an edge parallel with the sides or ends, as the case may be, of the frame A, and that a pencil or tool passed along its edge will draw a straight line upon the slate or other article placed within the frame, which slate or other article has sides and ends which will be parallel with the sides and ends of the frame.

The portions *c* of the ruler are formed at such a distance from the ends of the ruler that, as shown more clearly in Fig. 1, when the ruler is placed upon the frame such portions *c* will come within the end portions of the frame, and will thus act as stops to prevent longitudinal movement of the ruler while the same is on the frame. The width of the frame on the contrary is such that when the ruler is placed crosswise of it, as shown more clearly in Fig. 3, the portions *c* will come outside the frame, and thus operate as stops to prevent the sidewise longitudinal movement of the ruler.

We have illustrated a slate D arranged within the frame. When the slate, drawing-board, or other article upon which it is desired to draw straight lines is placed within the frame, it is desirable to hold the same in proper position for that purpose. We have shown more clearly in Figs. 1 and 4 a means for accomplishing this, consisting in a retaining-plate E, which retaining-plate is rigidly secured to a pull-rod F, extending to the outside of the frame upon one side thereof. This pull-rod is also secured near its inner end to a coil-spring G, which coil-spring is arranged in a suitable cavity *g* in the bottom *a* of the frame, the spring being secured near its other end to the rear wall of said cavity. When the pull-rod F is withdrawn, carrying with it the retaining-plate E, a slate, drawing-board, or similar article, may be introduced in the frame, and when the pull is allowed to be retracted by the spring G the retaining-plate E will firmly grip the slate or other article at its edge and will hold it against the opposite side of the frame. The pull-rod F operates through a guide comprising a plate *f*, secured to the outer side of the frame A.

By our improvement we are enabled to rule

school-slates, drawing-boards, or similar articles of various sizes accurately, with either a single line or with any desired number of parallel lines, or by placing the ruler first lengthwise of the slate and then crosswise of it, we are enabled to rule squares of any desired or convenient sizes. The improvement is therefore particularly adapted to school-work, or wherever it is desired to draw lines rapidly and yet accurately.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The combination, with a frame or holder adapted to receive a slate or similar article, of a retaining device for securing the slate or similar article in the frame, and an adjustable ruler adapted to engage the said frame or holder upon the side edges thereof and above the slate or similar article, substantially as specified.

2. The combination, with a frame or holder adapted to receive a slate or similar article, of a retaining device for securing the slate or similar article in the frame, said frame being provided with raised sides and ends notched upon their upper surfaces, and an adjustable ruler adapted to engage said notches, substantially as specified.

3. The combination, with a frame or holder adapted to receive a slate or similar article, of a retaining device for securing said slate or similar article in the frame, said frame having raised sides and edges provided with notches upon their upper surfaces and a ruler adapted to engage said notches, said ruler being provided with stops for preventing its longitudinal movement when in position on the frame, substantially as specified.

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