No. 746,053. PATENTED DEC. 8, 1903.

J. E. DUNDORE.

DEVICE FOR RULING SCHOOL SLATES.

APPLICATION FILED MAR. 7, 1903.

NO MODEL.

Fig. 1

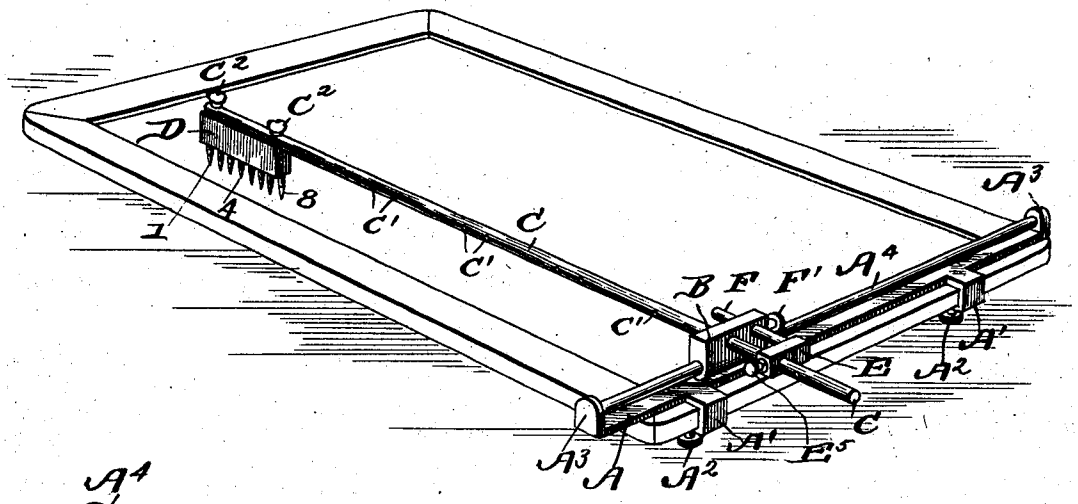


Fig. 2.

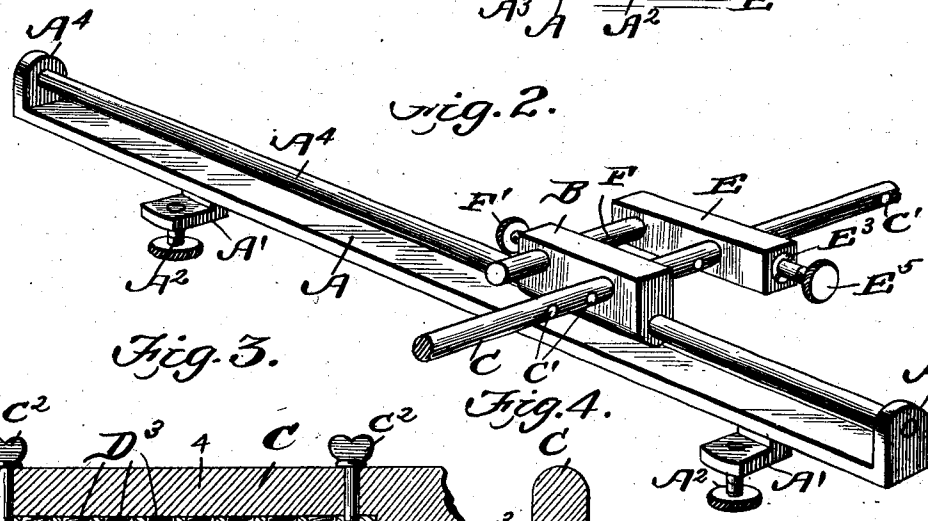


Fig. 3.

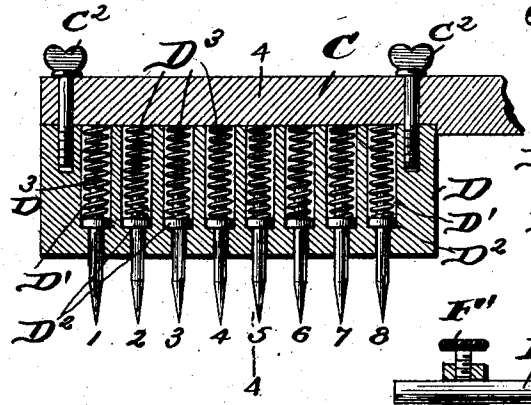


Fig. 4.

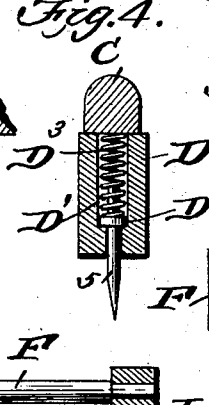


Fig. 6.

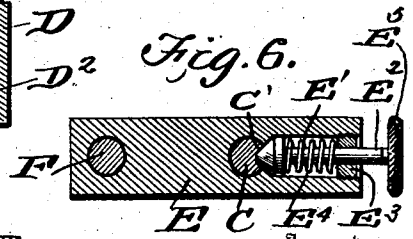
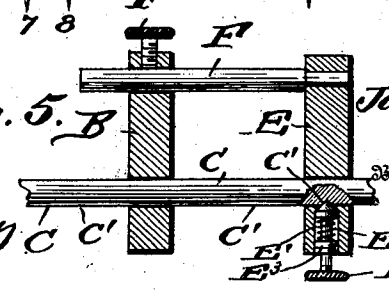


Fig. 5.



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No. 746,053. Patented December 8, 1903.

UNITED STATES PATENT OFFICE.

JACOB E. DUNDORE, OF LANCASTER, PENNSYLVANIA.

DEVICE FOR RULING SCHOOL-SLATES.

SPECIFICATION forming part of Letters Patent No. 746,053, dated December 8, 1903.

Application filed March 7, 1903. Serial No. 146,685. (No model.)

To all whom it may concern:

Be it known that I, JACOB E. DUNDORE, a citizen of the United States, residing at Lancaster, in the county of Lancaster and State of Pennsylvania, have invented a new and useful Device for Ruling School-Slates, of which the following is a specification.

My invention is an improved ruling device for school-slates, the object being to provide a suitable device of this kind which can be easily and quickly attached to a slate and adapted to rule lines of various distances apart and which can be adjusted to rule any portion of the slate and any number of lines, and the device can be adjusted to either the end or side of the slate and when lines have been ruled in one direction—as, for example, when the device is attached to the end of a slate and lines are ruled transversely across the slate—the device can be shifted to the side of the slate and lines ruled in the opposite direction. By this means the slate may be laid off in squares or may be ruled to represent a page of a day-book or ledger, and the lines ruled may be either permanent—that is, cut into the surface of the slate—or temporary and adapted to be rubbed off, as when made by points formed of slate-pencils.

In the accompanying drawings, Figure 1 is a perspective view of my improvement shown attached to a slate. Fig. 2 is a perspective view of the improvement shown detached. Fig. 3 is a longitudinal section through the pointer-block, the points and springs being in elevation. Fig. 4 is a section on the line 4 4 of Fig. 3. Fig. 5 is a detail view, partly in section, of the guide-blocks and parts attached. Fig. 6 is a longitudinal section through the sliding guide-block, the locking-key being in elevation.

In carrying out my improvement I employ a flat bar A, having downwardly-extending and forwardly-bent lugs A′, each having a threaded perforation carrying a binding-screw A^2. This bar is adapted to rest on the end or side of a slate and to be clamped thereto in the usual manner by the binding-screws.

At each end of the bar A is an upturned lug A^3, and secured at each end in one of these lugs is a bar A^4. A block B has a longitudinal bore through which passes the rod A^4, and the block is adapted to slide along the rod. Above the longitudinal bore the block B is transversely perforated adjacent each end, and through one of these perforations extends the rod C, having a plurality of sockets C′ along one side and vertically perforated adjacent one end. A pointer-block D is formed with a plurality of vertical bores D′ of smaller diameter in their lower portion than in their upper part, and adjacent each end of the block is a threaded socket adapted to register with the perforations carried by the rod C. In the bores are placed a plurality of points numbered from 1 to 8, respectively. These project below the block and are formed with a shoulder D, which fits within the larger portion of the bore D′, but will not pass into the reduced lower portion, thereby limiting the downward movement of the points. A spiral spring D^3 is placed in the upper part of each bore and rests at its lower end on the shoulder D^2, and when the block is secured to the under side of the rod C by the thumb-screws C^2 the upper end of the spring bears against the rod C. The points and springs can be easily removed from the block D when the latter is removed from the rod.

A block E is transversely perforated and has a socket E′ formed at one end and intersecting one of the transverse perforations. The outer end of the rod C passes through this perforation, and the block is secured to the rod by a locking-key E^2, which is adapted to slide in the socket E′ and engage the sockets C′, formed in the rod C. To hold the key in engagement with the rod, a perforated plug E^3, through which the key slides, is threaded into the socket, and a spiral spring E^4 encircles the key and bears at one end against the inner face of the plug and at its opposite end against a shoulder or head formed on the key adjacent its inner end. In order that the key may be drawn back to disengage the rod, a cap-piece E^5 is secured to its outer end.

A short rod F passes through the remaining perforations of the blocks B E, respectively, and is rigidly fitted into the block E. The block B is secured to this rod by a threaded screw F′, which when turned down binds against the rod and prevents it sliding in the block.

Having described the construction of my

device, its operation is as follows: The bar A being clamped to the edge of the slate, the pointers are brought into the desired position by moving the rod C through the blocks B E, and when the pointers rest on the portion of the slate to be ruled the rod is locked in position by the key engaging one of the sockets C′. Should one of these sockets not be in direct alinement with the key when the pointer is in the desired position, the key is allowed to engage the nearest socket. By sliding the rod C the binding-screw of the rod F is loosened and the block E is adjusted with reference to the block B until the pointer is in the desired position, for as the rod C is locked to the block E it will move with it. It is obvious, therefore, that the rod F permits adjustment of the rod C for fractions of the distance between the sockets C′.

In practice I set the points three-sixteenths of an inch apart, and by sliding the block B along the rod A^4 the pointers are drawn across the slate, ruling eight lines, and by sliding the rod C through the blocks B and E the points can be adjusted for ruling eight additional lines parallel to the first.

By removing points 3 and 6 a space of three-eighths of an inch will be left between the second and fourth and fifth and seventh points, thus ruling double parallel lines three-eighths of an inch apart. By removing points 2, 4, 6, and 8 four parallel lines, each three-eighths of an inch apart, are ruled. The points may be either slate or sharp steel.

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

1. A device of the kind described comprising an adjustable rod adapted to be moved across a slate, a block removably secured thereto, and ruling-points removably held in the block.

2. A device of the kind described comprising a bar adapted to be attached to a slate, a block sliding above said bar, a rod adjustably carried by said block and adapted to extend over a slate, and a plurality of ruling-points detachably secured to said rod.

3. A ruling device comprising a rod adapted to be secured above the edge of a slate, a block sliding thereon, a parallel block, a short rod connecting the two blocks and adapted to slide transversely through the sliding block, a rod extending over the slate and passing through both blocks, means for locking the last-named rod to one of the blocks, and points adapted to rule lines on a slate detachably secured to that portion of the rod extending over the slate.

JACOB E. DUNDORE.

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