

(No Model.)

B. F. E. JAHR & H. L. WEDEKIND.
SLATE.

No. 463,837.

Patented Nov. 24, 1891.

Fig. 1.

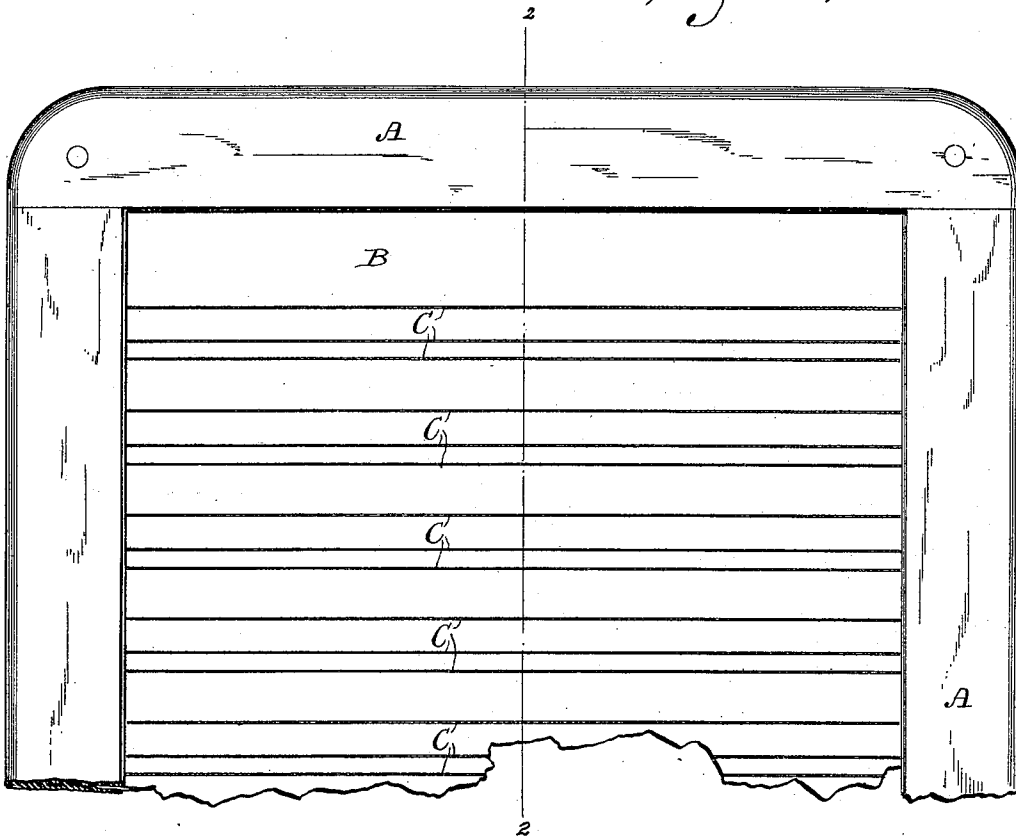


Fig. 2.

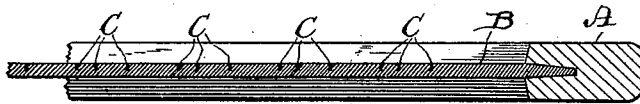
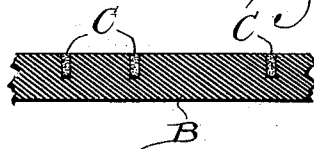


Fig. 3.



Witnesses
Geo. W. Young.
John E. Miles.

Inventors
Bernhard F. E. Jahr,
Henry L. Wedekind.
By H. G. Underwood
Attorneys

UNITED STATES PATENT OFFICE.

BERNHARD F. E. JAHR AND HENRY L. WEDEKIND, OF MILWAUKEE,
WISCONSIN.

SLATE.

SPECIFICATION forming part of Letters Patent No. 463,837, dated November 24, 1891.

Application filed June 15, 1891. Serial No. 396,244. (No model.)

To all whom it may concern:

Be it known that we, BERNHARD F. E. JAHR and HENRY L. WEDEKIND, both citizens of the United States, and residents of Milwaukee, in the county of Milwaukee, and in the State of Wisconsin, have invented certain new and useful Improvements in School-Slates; and we do hereby declare that the following is a full, clear, and exact description thereof.

Our invention relates to improvements in school-slates; and it consists in the matters hereinafter described, and pointed out in the appended claim.

In the accompanying drawings illustrating our invention, Figure 1 is a face view of a portion of a school-slate embodying our invention. Fig. 2 is a section of the same on line 2 2 of Fig. 1. Fig. 3 is an enlarged sectional view of a portion of the slate.

In said drawings, A indicates the frame of the slate.

B indicates the slate.

C C indicate colored lines upon the surface of the slate. These lines are made by engraving or cutting deeply into the body of the slate and then filling said engraved lines or cuts with any suitable coloring material—such as paint or enamel—so as to give a smooth and uniform surface to the slate.

We are aware that slates have been heretofore made with engraved lines and that colored lines have been made upon the surfaces of slates by means of chemicals; but neither of these forms of slates is satisfactory for the following reasons: When the lines are scratched or engraved in the substance of the slate, they leave the surface uneven, so that uniform and perfect writing cannot be done thereon. The lines, furthermore, soon become filled with dirt and become practically indistinguishable without a great strain upon the eyes of the children using the slates. Where the lines are formed by chemicals combined

with or precipitated in the slate itself only a surface stain is produced, or if sufficient of the chemical is applied to sink deeply into the substance of the slate it will necessarily spread so as to make the lines very broad and ragged. With our improvements, however, the lines may be cut as deeply as may be desired, and are preferably cut to or near the center of the body of the slate, and the lines being then filled with a suitable paint or enamel are of the same width from top to bottom of the grooves, and the lines may be made as fine as desired. With our improvements, also, the lines are rendered durable and are clear and distinct even after the slate has become greatly worn down, and the surface of the slate is always kept smooth from the fact that the slate itself and the material forming the lines are both worn down together by continued use of the slate.

If desired, any suitable figures or characters may be engraved in the slate and filled with coloring material in the manner above described.

Having described our invention, what we claim is—

As an improved article of manufacture, a school-slate having lines cut or engraved deeply into its substance from one or both surfaces, said lines being then filled with a coloring material, so as to give to the lines a distinctive color from the color of the slate, substantially as described.

In testimony that we claim the foregoing we have hereunto set our hands, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

BERNHARD F. E. JAHR.
HENRY L. WEDEKIND.

Witnesses:

JOHN E. WILES,
N. E. OLIPHANT.