

# UNITED STATES PATENT OFFICE.

CHAUNCEY R. STUNTZ, OF TERRACE PARK, OHIO.

## PROCESS OF RULING SLATES.

SPECIFICATION forming part of Letters Patent No. 348,599, dated September 7, 1886.

Application filed January 27, 1886. Serial No. 189,962. (Specimens.)

*To all whom it may concern:*

Be it known that I, CHAUNCEY R. STUNTZ, a citizen of the United States, residing at Terrace Park, in the county of Hamilton and State of Ohio, have invented a new and useful Process of Ruling Slates, of which the following is a specification.

The object of my invention is to rule, letter, or ornament argillaceous slate by applying to its surface, in a moist condition and by means of a pen or other suitable instrument, a mixture formed by dissolving in hydrofluoric acid to partial saturation any base or bases that will combine with the acid and the aluminium of the slate, and produce an insoluble compound fluoride of aluminium of different color to that of the body of the slate.

In carrying my process into effect I dissolve potassa in hydrofluoric acid until it is saturated to the degree required, depending on the depth and distinctness desirable in the markings. I then apply the mixture directly to the surface of the slate in a moist condition with a pen or other suitable instrument. Suitable

body may be given to the mixture by suspending in it any appropriate substance—such, for instance, as the gelatinous compound of tin and hydrofluoric acid. The surface of the slate may be coated with wax or other suitable material similar in nature and action when the mixture shows too great a tendency to spread.

In forming the mixture the potassa may be replaced by the use of soda, or by other bases, as hereinabove specified.

I claim—

The process of lettering, ruling, and otherwise marking and ornamenting argillaceous slate by producing in its surface an insoluble compound fluoride of aluminium of a distinctly different color to that of the body of the slate, substantially as herein set forth.

In testimony of which invention I have hereunto set my hand.

CHAUNCEY R. STUNTZ.

Witnesses:

JOHN E. JONES,  
H. WINTERING.