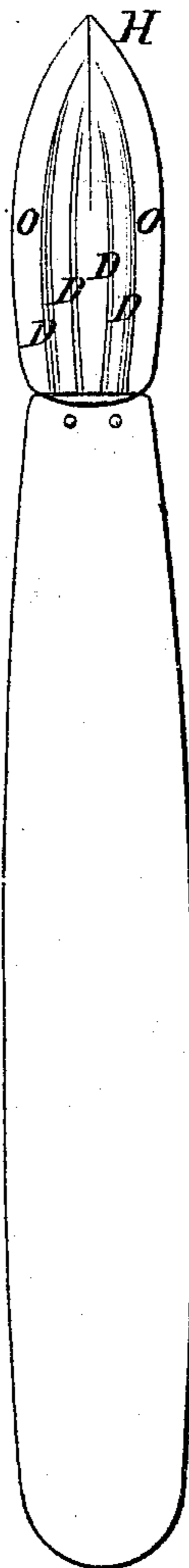


W. A. Morse & J. G. Powell.

Eraser.

N^o 78,887.

Patented Jun, 16, 1868.



WITNESSES.

Louis Wagner.
Asa S. Welsh,

INVENTOR

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United States Patent Office.

WILLIAM A. MORSE AND JOHN G. POWELL, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 78,887, dated June 16, 1868.

IMPROVEMENT IN ERASERS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, WILLIAM A. MORSE and JOHN G. POWELL, both of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Ink-Erasers; and we do hereby declare that the following is a full and exact description of the construction and operation of the same.

The nature of our invention consists in making a knife from thin sheet steel, of any desired size or form, for a specific work, and stiffen the same by corrugation.

To enable others skilled in the art to make and use our invention, we will proceed to describe its construction and operation.

We make our improved eraser, shown in the annexed drawing, of thin sheet steel. We generally select common steel plate, of about twenty-four gauge, cut the same into strips of suitable widths, and anneal them in a furnace, after which they are rolled cold to the desired thinness, between rollers adapted to such work. We then cut these strips in a press, with die and punch of desired size and form, after which we anneal the blanks by subjecting them to suitable heat in a furnace; then they are ready for corrugating, which we do with a die and punch in a drop-press. We do not specify any particular number of corrugations to be produced on the blade of our eraser, but we find that four will produce a much stiffer and better blade than two. The lighter we make the steel, the more corrugations we make in the blade.

The edges *o o'* of the eraser *H* are struck or turned up in the operation of forming the corrugations *d d d d*, and left projecting above the corrugated surface far enough to admit of grinding both of said edges on a flat stone at the same time, without interfering or grinding said corrugations to mar the surface of the same.

The advantage of using cold rolled steel is to lessen the expense in the work of polishing, which enables us to do it by "tumbling" the blades, after hardening, in metallic cylinders, containing emery or other mineral, and may be done in lots of one-hundred gross at a time, thereby producing a very smooth and highly-polished surface at a very trifling cost.

We can manufacture our improved eraser-blade all complete for a handle, at an expense not exceeding forty cents a gross, and in many respects it is superior to erasers now in common use, which retail at from fifty cents to one dollar each, being much lighter, and more easily sharpened when dull.

The operation of using our improved eraser is substantially the same as erasers now in common use.

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

An eraser-blade made from thin sheet steel, when the same is stiffened by corrugations as shown and described, for the purpose set forth.

WM. A. MORSE,
JOHN G. POWELL.

Witnesses:

LOUIS WAGNER,
JAS. D. WELSH.