

UNITED STATES PATENT OFFICE.

J. MILTON TAYLOR, OF LAUREL POINT, WEST VIRGINIA.

IMPROVEMENT IN RAZOR-STROPS AND POLISHING-WHEELS.

Specification forming part of Letters Patent No. 124,173, dated February 27, 1872.

SPECIFICATION.

I, J. MILTON TAYLOR, of Laurel Point, in the county of Monongalia and State of West Virginia, have invented an Improved Preparation of Leather for Razor-Strops, Polishing-Wheels, and other purposes, of which the following is a specification:

My invention relates to the impregnation of leather with fine cutting particles of emery, corundum, or other sharp or gritty mineral substances to be used in strops, wheels, &c., for sharpening and polishing cutting instruments or metallic surfaces. Heretofore, in the manufacture of razor-strops and polishing-wheels, it has been customary to coat a surface of leather with a mineral paste. This paste, however, not only soon wears off, but is in itself too rough and coarse for use with very fine instruments; and the object of my invention is to obviate these disadvantages by so combining mineral particles with the pores of the leather as that the leather itself shall possess uniform whetting and polishing temper and properties which will last until the entire body is worn away, and to so soften and temper the mineral particles themselves as that they shall be adapted to the very finest work.

For the purposes of my invention, I take ordinary leather, known as rough skirting, and cut down the flesh side thereof perfectly smooth and even, and also the opposite side just enough to break the grain. I prepare in the meantime an acid solution, by placing acetic acid (or other equivalent preparation of acid which may be readily evaporated) and flour of emery, corundum, or other like sharp gritty mineral substance, in the proportion of about six pounds of emery to one gallon of acid, into a suitable vessel, and constantly agitating the same for four or five days. The action of the acid in constant agitation upon the emery dis-

solves it in a certain limited extent, or so softens and smooths it as that it will operate thereafter to produce an exceedingly smooth and even, as well as keen edge, which is very desirable in a razor or surgical instrument. The leather prepared as hereinbefore stated is then placed into this acid preparation and allowed to remain therein from twelve to twenty-four hours, or until thoroughly impregnated with the mixture, after which it is hung up so as to be exposed to the air until the acid, evaporating, has left the particles of emery firmly and closely embedded in the leather. The leather, after being steeped in the acid solution as above described, becomes much firmer than it was before, and shrinks about one-tenth, so that a piece containing originally two square feet will, after it has been prepared as described, shrink to about nine square feet. In consequence of its increased firmness of texture it will wear longer than ordinary leather, and by being fully impregnated with the emery or other mineral, it retains its cutting properties as long as the leather lasts, unlike the ordinary straps, which, so soon as the pasty surface is worn off, are worthless.

I claim as my invention—

1. The within-described process of preparing leather for whetting and polishing purposes by impregnating the same with finely-comminuted mineral particles, substantially as herein set forth.

2. As a new article of manufacture, leather impregnated as herein set forth with emery or other mineral particles, for use in straps, wheels, and other devices for sharpening cutlery and edge tools or instruments, and for the polishing of metals.

J. MILTON TAYLOR.

Witnesses:

GEORGE BARB,
R. B. FOGLE.