## United States Patent Office.

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## ART OF UTILIZING REFUSE SAND-PAPER.

SPECIFICATION forming part of Letters Patent No. 356,487, dated January 25, 1887.

Application filed July 9, 1886. Serial No. 207,571. (No model.)

To all whom it may concern:

Be it known that I, Don Castro Mathews, of Wethersfield, in the county of Hartford and State of Connecticut, have invented a new and useful Art of Utilizing Refuse Sand-Paper, of which the following is a specification.

In the manufacture of boots and shoes large quantities of sand-paper—including by that term not only sand and emery cloth and paper, 10 but other like abrasive material--are used, and when worn out such paper is a refuse material, either thrown away or else sold as junk for a trifling percentage of its original cost. When the bulk of the sand, emery, or other abrasive 15 coating seems to have been rubbed off, and the surface is smoothed and glazed or gummed, the sand-paper is discarded as unfit for further use, and is, in fact, in its then condition unfit for further use as an abrasive material; but I 20 have discovered that but little of the abrasive coating is, in fact, worn off, and that the paper can be made almost as good as new by removing the foreign matter which gets packed about the grains of the abrasive material; and my 25 invention consists in renovating worn-out sand-paper by removing this layer or coating of foreign matter without taking with it the sand or other abrasive material.

Large quantities of sand-paper are used on buffing-machines for buffing the soles of boots and shoes, and such paper, after being used to buff a number (the number varying with the kind of soles and kind of paper) of pairs of shoes, becomes spent or used up, and has here-tofore been thrown aside as worthless. This refuse paper I renovate by first wetting the gummed or coated side with water and then brushing with a brush stiff enough to remove the foreign matter when softened or made like

a paste by the water, but not stiff enough to to remove the sand. Of course the brushing must follow soon after the wetting, or otherwise the glue by which the sand is held to the sheet will be softened too much to hold the sand.

A little practice, accompanied by ordinary 45 care and skill, will enable any one to readily practice my invention.

I have found by actual practice that sand-paper used up in buffing the soles of a given number—say sixty pairs of shoes—will, when renovated as above described, buff as many more, and can be again renovated and do about half as many more—say from twenty to thirty pairs. That is to say, by means of my invention I am enabled to do more than twice 55 the work which could heretofore be done with a given quantity of sand-paper.

While my invention is mainly valuable in the manufacture of boots and shoes, yet it is applicable in other cases where sand paper is 60 used in pieces large enough to make it an object to reclaim them.

I am aware of United States Patent No. 194,235, covering a process for treating waste abrasive cloth or paper so as to separate it into 65 its constituent elements, in order that they may be again used; but this only constitutes one of the ways in which waste abrasive material sold as junk, as above stated, is utilized.

What I claim as my invention is— The method of utilizing refuse sand-paper, consisting in removing the foreign matter packed around the grains of sand by washing and brushing, as set forth.

D. C. MATHEWS. Witnesses:
EDWARD S. BEACH,
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