No. 875,936. PATENTED JAN. 7, 1908.

E. F. LANDIS.

ABRADING MATERIAL.

APPLICATION FILED JULY 30, 1907.

Fig. 1.

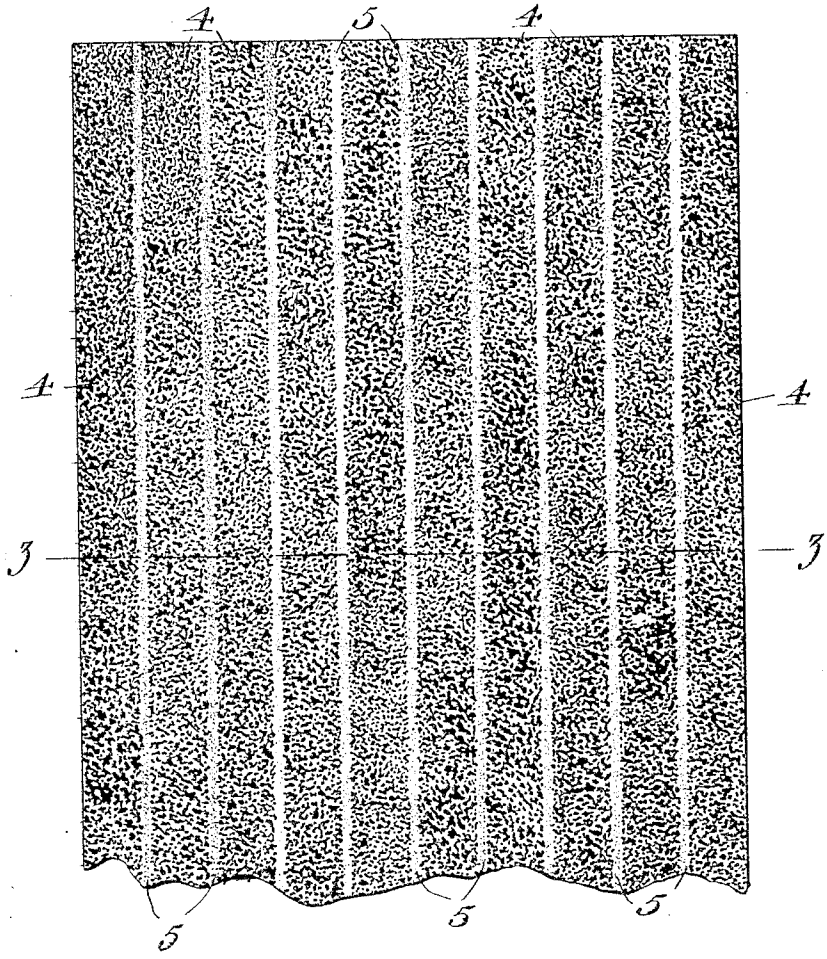
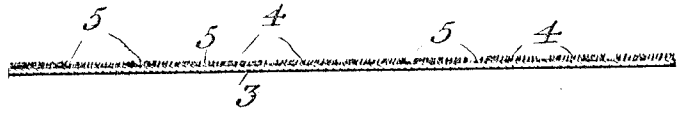


Fig. 2.



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UNITED STATES PATENT OFFICE.

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ABRADING MATERIAL.

No. 875,936. Specification of Letters Patent. Patented Jan. 7, 1908.

Application filed July 30, 1907. Serial No. 386,279.

To all whom it may concern:

Be it known that I, EZRA F. LANDIS, a citizen of the United States, residing at La Salle, in the county of Niagara and State of New York, have invented new and useful Improvements in Abrading Material, of which the following is a specification.

My invention relates to abrading material and more particularly to cloth, paper, or other flexible material having an adherent coating of emery or other abrasive material forming the abrading surface thereof.

The object of my present invention is the production of cloth, paper, or other flexible material having an abrading surface formed by applying different grades of abrasive grit thereto, whereby glazing of the material is obviated and a more effective abrading or grinding action is obtained.

The invention consists in the application of different grades of abrasive grit to the surface of a sheet of paper, cloth, or the like, in the manner hereinafter described and pointed out in the appended claims.

I preferably apply two different grades of abrasive grit adhesively to the surface of a sheet of paper, cloth or the like, in the form of abrading strips or areas separated by narrow relief strips, the two grits being arranged alternately; by this arrangement, the particles of metal detached from the article being ground will more readily free themselves from the surface of the abrading-material and by using the material with the parallel strips or areas at right angles to the line of action, a given amount of work can be done in a much shorter period of time than can be done with the common form of abrading material.

Referring to the drawings,—Figure 1 is a face view of a portion of a sheet of abrading material made in accordance with my invention. Fig. 2 is a transverse section, taken on line *z*—*z*, Fig. 1.

The reference numeral 3 designates a sheet of paper, or other flexible material, which forms the foundation of my improved abrading material, and to one side thereof is applied a coat of glue or like adhesive substance. Onto this glue-coated surface, I distribute different grades of abrasive-grit, preferably two grades which I arrange alternately in parallel strips or areas, as clearly shown in the drawings, in which 4 designates abrading strips or areas of a certain grade of grit possessing a certain grinding or abrading capacity, and 5 are relief strips of a different grade of grit which may be either finer or coarser, or of the same fineness, so long as its grinding capacity is different from the grit used in the strips or areas designated 4. Therefore, where herein reference is made to grits of different grade, it is to be understood as meaning either grits of the same fineness but of different abrading capacity or qualities, grits in which one is finer than the other and both possessing the same abrading capacity or qualities, or grits in which one is finer than the other but of different abrading capacity or qualities. The relief strips 5 separate the abrading-strips, and although they have a slight abrading action on the article being worked, they are primarily intended to prevent glazing, and to provide a more effective grinding action; the lines of separation between the different areas being distinct and sharply defined so that the particles ground from the article being worked upon will free themselves easily. By forming the surface in this manner, the sharply defined lines of separation between the two grades of grit, provide gripping edges which assure effective action and increase such action to the maximum.

The manner of applying the grit to the foundation may be the same as employed in the case of emery paper or cloth made heretofore, but as the method of making the material is immaterial to my invention, it may be made in any approved manner.

The advantage of an abrading material constructed according to this invention will be clearly apparent from the foregoing description.

Having thus described my invention, what I claim is,—

1. An abrading-material consisting of a foundation of flexible material having abrasive-grits of two different grades adhesively applied thereto, the two grades of grit being applied in relatively wide and narrow parallel strips or areas and arranged alternately.

2. An abrading-material consisting of a foundation having abrasive-grits of two different grades applied thereto in relatively wide and narrow strips or areas and arranged alternately, the grits applied in narrow areas being less abrasive than the grit applied in wide areas, for the purpose set forth.

In testimony whereof, I have affixed my signature in the presence of two subscribing witnesses.

EZRA F. LANDIS.

Witnesses:
WILLIAM SHAFER,
J. H. SCHMECK.