

(No Model.)

R. S. JENNINGS.

SMOOTHING AND POLISHING MATERIAL.

No. 298,474.

Patented May 13, 1884.

Fig. 5.

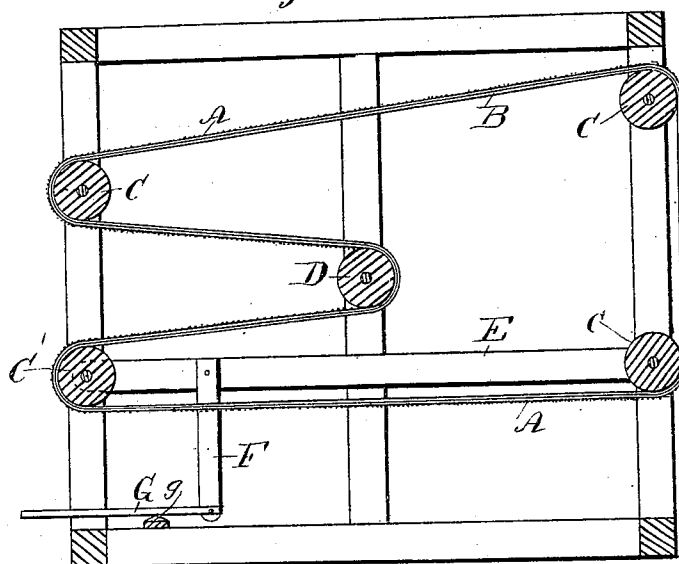


Fig. 2.

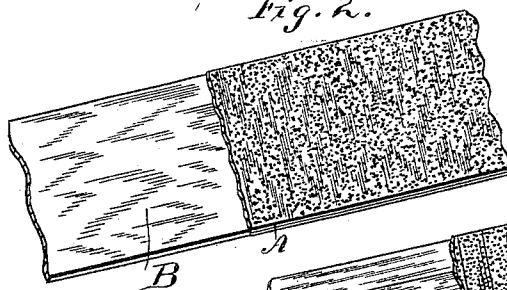


Fig. 3.

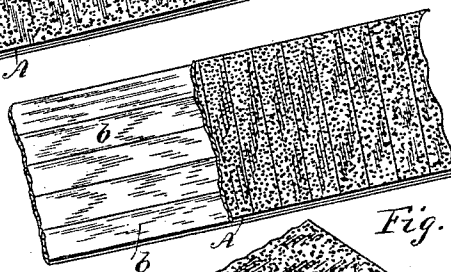


Fig. 1.

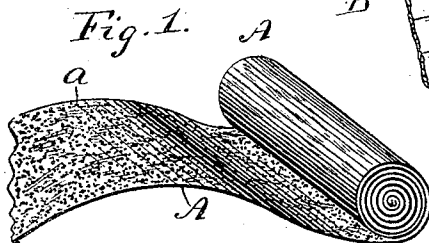
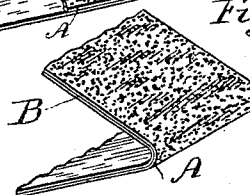


Fig. 4.



Witnesses:
W. E. Boman.
Chas. R. Burr

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UNITED STATES PATENT OFFICE.

RALPH S. JENNINGS, OF BOSTON, MASSACHUSETTS.

SMOOTHING AND POLISHING MATERIAL.

SPECIFICATION forming part of Letters Patent No. 298,474, dated May 13, 1884.

Application filed September 29, 1883. (No model.)

To all whom it may concern:

Be it known that I, RALPH S. JENNINGS, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Smoothing and Polishing Materials, of which the following is a specification, reference being had therein to the accompanying drawings.

The object of this invention is to provide for the sand, emery, and other similar materials which are used for smoothing and polishing a support which shall be superior to that provided by the paper heretofore used.

Figure 1 shows in perspective a piece of my improved polishing or smoothing material. Figs. 2 and 3 show modifications thereof. Fig. 4 illustrates the flexibility of the material, whereby it is adapted to be used in a corner or contracted space for smoothing or polishing. Fig. 5 is a sectional view of an endless band or belt of the material, the frame and apparatus being substantially similar to those now in use, and with which my improved polishing material can be employed.

Heretofore in the manufacture of polishing materials analogous to mine use has been made of paper in one or another of its forms as a support or backing to receive the sand or emery or other substance depended on for producing the polishing or smoothing effect. Much trouble and inconvenience are caused in using these materials, as is well known, it being impossible to have them both sufficiently strong and at the same time sufficiently flexible. When in use the paper breaks and tears easily, so as to become worthless in a short time. I provide a superior backing or support for the sand or other polishing material by securing it to comparatively thin, flexible strips or sheets of wood veneer, as shown in Fig. 1 at A a, the former letter indicating the backing or support, and the latter the particles of sand, emery, or other grinding substance. For some purposes a superior support is provided by securing together two sheets or strips of wood, one superposed upon the other, and one sheet or strip running transversely to the other—that is to say, so situated as to have its grain transverse to that of the other, as shown in Fig. 2; or several strips

may be arranged in one plane, and several strips in another plane may be secured thereto, with the grain running transversely to the grain of the aforesaid series, as shown in Fig. 3.

Any suitable material may be used for securing the pieces of wood together, as glue, cement, &c. I use wood of some of the species which, when cut into thin sheets, are pliable and flexible, so that the surface covered with sand or emery may be bent in any desired way. If the wood is properly prepared, it will allow a small portion or strip to be cut or torn off therefrom, as strips or small portions are now cut or torn from the sheets of emery-paper or sand-paper. A polishing or smoothing material of this character is much superior to the paper heretofore employed, as it can be used until the surface covered with sand or emery is worn entirely smooth, whereas, as is well known, when using the ordinary sand-paper or emery-paper, the back breaks or tears before the surface which has the sand or emery loses its efficiency. Preferably the lower sheet of veneer is arranged with its grain running longitudinally—that is to say, lengthwise of the sheet or strip of polishing material—and the sheet to which the sand or emery is secured has its grain running transversely. However, I do not wish to be limited to this specific relative arrangement of the grains of the different sheets. When so made, the finished material may be used to advantage over rollers or pulleys, as shown in Fig. 5, this figure illustrating the method of using an endless band or strip of the polisher. The guiding or supporting pulleys are represented at C C', the latter being arranged to rise and fall in the way now common in machines of this general class—that is to say, the pulley or roller C' is mounted in swinging arms or bars E, which can be thrown up and down by means of a lever, G, flexibly connected with the said arms or bars E, and arranged to be moved by the operator's foot. The lever G is shown as resting upon a fulcrum, g, about which it rocks, and it bears upward against a link, F.

What I claim is—

1. The polishing or smoothing material constructed, substantially as hereinbefore set forth, of sand, emery, or similar grinding substance secured to sheets or strips of wood, which in turn are fastened to other sheets or

strips having the grain running transversely relative to the grain of the aforesaid sheets or strips, substantially as set forth.

5 2. The herein-described polishing or smoothing material, consisting of sand or emery secured to flexible wooden sheets or strips, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

RALPH S. JENNINGS.

Witnesses:

S. R. POORE,

HENRY H. PAGE.