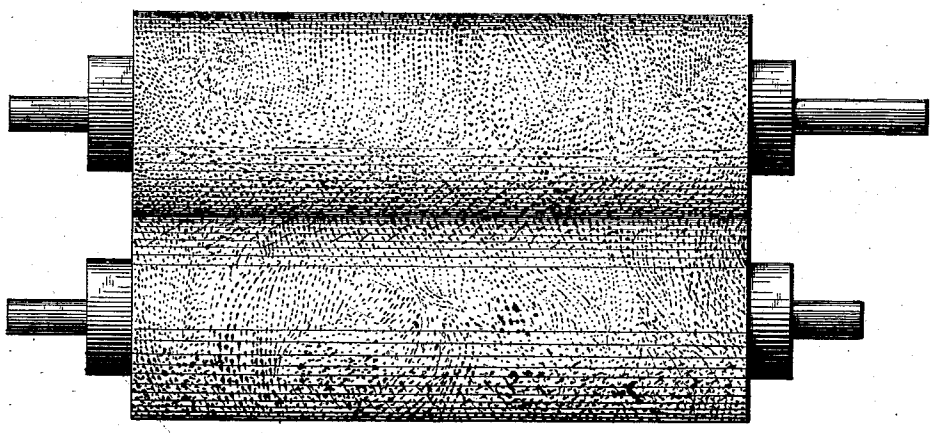
(No Model.)

W. N. COSGROVE.

PROCESS OF PREPARING THE SURFACES OF GRINDING ROLLS.

No. 254,199. Patented Feb. 28, 1882.

Fig. 1.



Attest,
W. N. Knight.
Fred. F. Church.

Inventor,
William N. Cosgrove,
by Melville Church
His Attorney

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UNITED STATES PATENT OFFICE.

WILLIAM N. COSGROVE, OF FARIBAULT, MINNESOTA.

PROCESS OF PREPARING THE SURFACES OF GRINDING-ROLLS.

SPECIFICATION forming part of Letters Patent No. 254,199, dated February 28, 1882.

Application filed November 2, 1881. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM N. COSGROVE, of Faribault, in the county of Rice and State of Minnesota, have invented a certain new and Improved Process of Preparing the Surfaces of Grinding-Rolls; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification, in which the figure represents a pair of rolls prepared in accordance with my invention.

My invention consists, first, in an improved mode or process of preparing grinding-rolls for flouring-mills, consisting in pressing sand, emery, corundum, or other analogous or equivalent material into the surfaces of smooth metal rolls, whereby a peculiar indented surface is given to the rolls, which renders them very effective in grinding fine middlings to flour or in sizing coarse middlings; and, secondly, in a process of indenting smooth metal rolls, consisting in passing sand, corundum, or other like or equivalent material between a pair of such rolls closely adjusted together.

In carrying out my invention a pair of smooth metal rolls are adjusted very close together and rotated so that their proximate surfaces run in the same direction, and a quantity of sand, emery, corundum, or other like material is then run through between the rolls in such manner as to be pressed into the surface of the rolls and form very even indentations therein. This simple process forms a dress on the rolls that especially adapts them to the grinding of fine middlings into flour and to the sizing of coarse middlings, the granulation being made very even, and the material not being flattened so much as by smooth rolls.

From practical test I have found that a pair of rolls can be perfectly dressed in a few minutes by running twenty or thirty pounds of sand between them.

I do not desire to be limited to the use of sand, emery, or corundum, or any combination of these materials in carrying out my process, as other materials and combinations of materials may be effectively employed. Nor do I desire to be limited to the pressing of the material into the surfaces of the rolls by passing it between them, as the rolls to be dressed may be pressed against any kind or shape of surface covered with the indenting material with the same effect.

I claim as my invention—

1. The herein-described mode or process of dressing smooth metal rolls, consisting in pressing sand, emery, corundum, and other analogous or equivalent material into the surfaces of said rolls to form an indented dress, as set forth.

2. The process of indenting smooth metal rolls, consisting in passing sand, emery, corundum, or other like equivalent material between a pair of such rolls closely adjusted together, substantially as described.

WILLIAM N. COSGROVE.

Witnesses:

MELVILLE CHURCH,

FRED F. CHURCH.