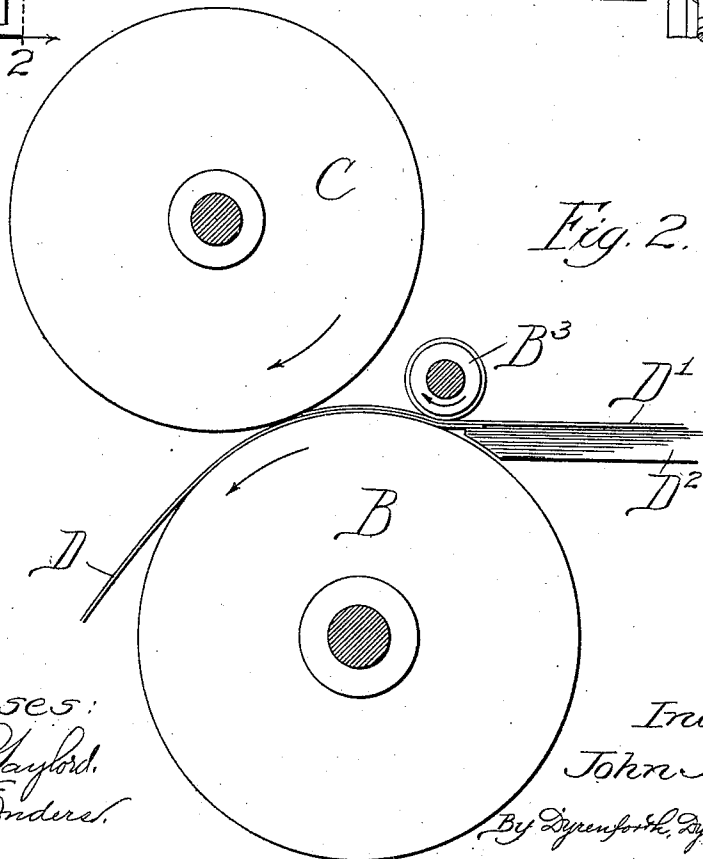
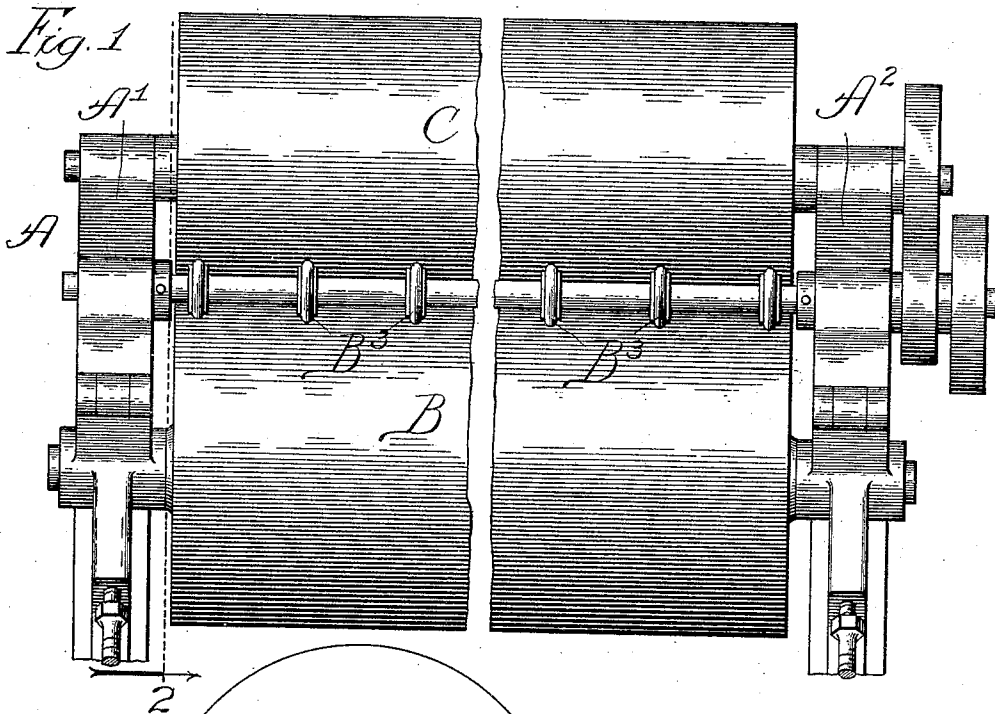


No. 819,369.

PATENTED MAY 1, 1906.

J. NELSON.  
METHOD IN POLISHING SHEET METAL.

APPLICATION FILED OCT. 9, 1905.



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# UNITED STATES PATENT OFFICE.

JOHN NELSON, OF PERU, ILLINOIS.

## METHOD IN POLISHING SHEET METAL.

No. 819,369.

Specification of Letters Patent.

Patented May 1, 1906.

Original application filed April 22, 1905, Serial No. 255,938. Divided and this application filed October 9, 1905. Serial No. 281,914.

*To all whom it may concern:*

Be it known that I, JOHN NELSON, a citizen of the United States, residing at Peru, in the county of Lasalle and State of Illinois, have invented a new and useful Improvement in Methods in Polishing Sheet Metal, of which the following is a specification.

My invention relates particularly to a method of feeding metal sheets through a polishing-machine whereby the sheets are prevented from being violently thrown from the machine owing to the action of the polishing or buffing cylinder.

In the accompanying drawing so much of a polishing-machine is shown as will enable my invention to be readily explained and understood, and for a fuller description of said machine reference is made to my pending application, Serial No. 255,938, filed April 22, 1905, of which the present application forms a division.

Referring to the drawing, A represents a portion of a frame having side standards A<sup>1</sup> A<sup>2</sup>; B, a sheet supporting and feeding cylinder supported on the side standards in any suitable manner, preferably as shown in said application; B<sup>3</sup>, a relatively small feed-roll driven from any suitable source of power and located in close relation to the cylinder B, and C a polishing or buffing roll located above and slightly in the rear of the cylinder B, so that the feed-roll B<sup>3</sup> is located in the entrant angle between the cylinder B and roll C and close to the line of contact therebetween.

The sheets of metal D D' are fed between the rolls B B<sup>3</sup> from a table D<sup>2</sup>, and they then pass between the rolls B and C. The three rolls rotate in the direction indicated by the arrows, and the roll C is given a very high speed from any suitable source of power.

The method of feeding the sheets to secure the desired result is to cause the entering margin of the second sheet to overlap the rear margin of the first sheet sufficiently to span the distance between the contact-lines formed by the cylinder B with the rolls B<sup>3</sup>

and C, so that the rear margin of the first sheet is subjected to the binding action of the second sheet, thus leaving the sheet being operated upon at no time wholly free to the unrestrained action of the polishing-roll. It is understood, of course, that the process is repeated constantly as the sheets pass in succession through the machine.

It will be observed that the method of feeding described leaves a margin of each sheet unpolished, and this defect is remedied by turning the sheets end for end (keeping the polished side up) and feeding them again through the machine. This insures thorough cleansing and polishing of the sheets, inasmuch as any cavities or protected surfaces escaping the polishing-roll when applied to the sheet when presented in one direction are exposed to polishing action when the sheet is presented in the opposite direction.

What I regard as new, and desire to secure by Letters Patent, is—

1. The method of feeding sheets of metal through a polishing-machine, which consists in overlapping the sheets, whereby the leaving sheet is subjected to the binding action of the following sheet to prevent the former from being violently thrown by the action of the polishing-cylinder, for the purpose set forth.

2. The method of polishing sheets of metal, which consists in passing the sheets in overlapping condition between a supporting-roll and juxtaposed feed and polishing rolls co-acting therewith and then reversing the sheets (without inversion) and passing them in overlapping condition between the supporting-roll and the feed and polishing rolls, whereby an entire surface of each sheet is polished and the sheets preserved from being violently thrown from the machine by the polishing-roll.

JOHN NELSON.

In presence of—

R. F. STRUEVER,  
B. J. WAUMAN.