Nov. 18, 1924. 1,516,098

J. C. HEYER

METHOD OF MAKING ROLLED METAL SHEETS

Filed March 31, 1922

Fig. I.

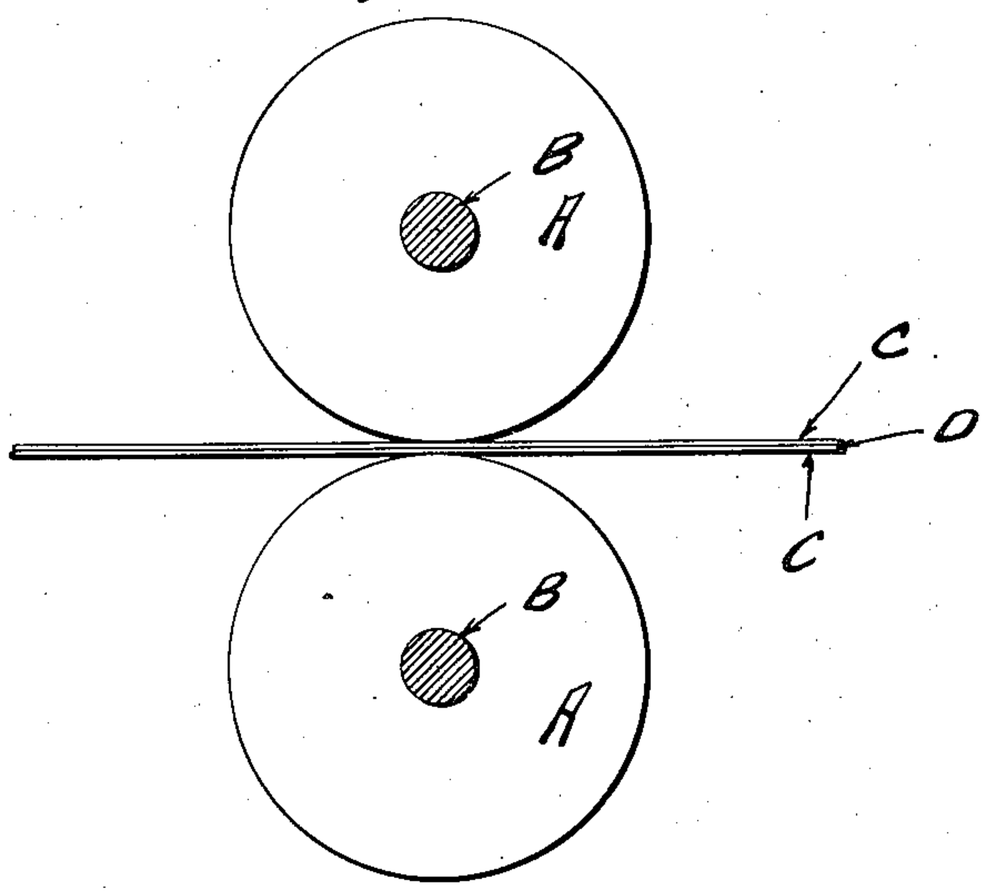

Fig. II.

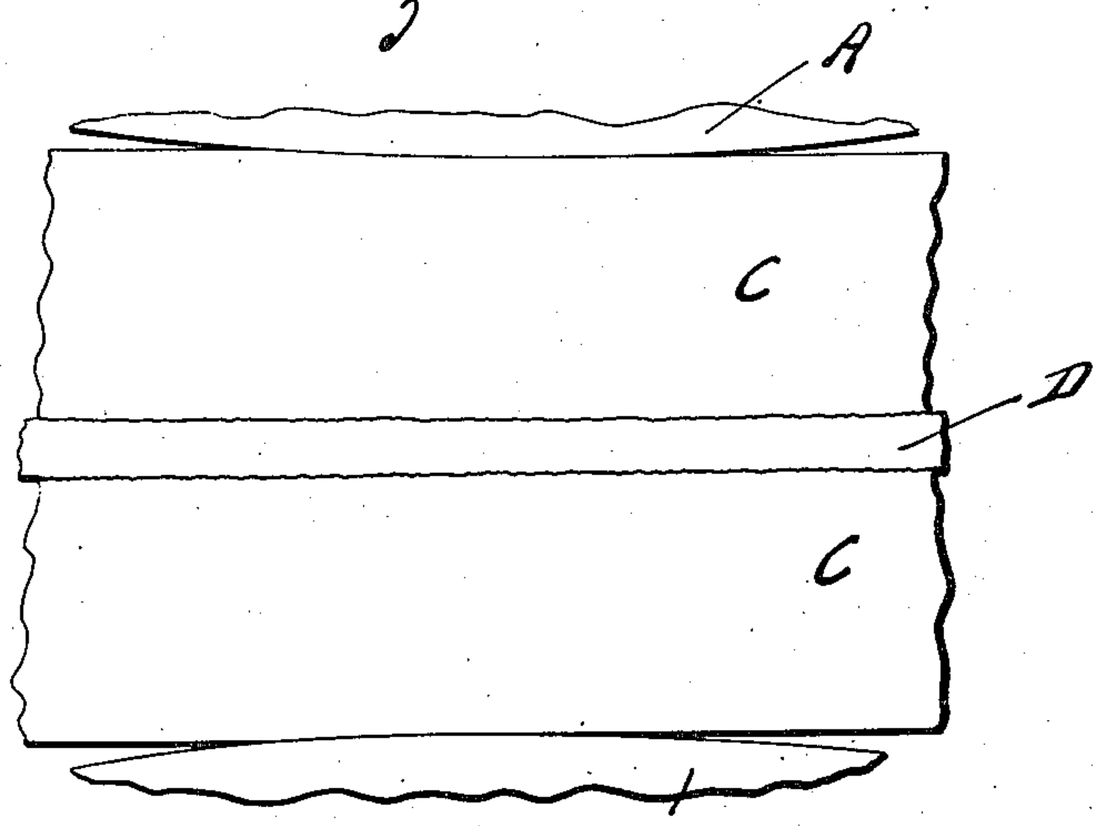

Fig. III.

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UNITED STATES PATENT OFFICE.

JOHN C. HEYER, OF GRANITE CITY, ILLINOIS, ASSIGNOR TO HOYT METAL COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

METHOD OF MAKING ROLLED METAL SHEETS.

Application filed March 31, 1922. Serial No. 548,550.

To all whom it may concern:

Be it known that I, JOHN C. HEYER, a citizen of the United States of America, a resident of Granite City, in the county of Madison, State of Illinois, have invented certain new and useful Improvements in Methods of Making Rolled Metal Sheets, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to rolled metal sheets and the method of making the same, and particularly to rolled metal sheets having a dull, rough surface known as satin finish. The main object of this invention is to provide a simple and expedient method whereby a sheet of metal may be provided with a dull finish. Briefly stated, this may be accomplished by the use of an impression sheet having a rough surface corresponding to the surface it is desired to place on the metal sheet, which impression sheet is pressed onto said metal sheet, thereby reproducing on the metal sheet the rough surface of the impression sheet.

Fig. I is a diagrammatical view showing the means of pressing the metal sheets and the impression sheet together.

Fig. II is a greatly enlarged fragmentary side elevation showing portions of the metal sheets and a portion of the impression sheet as they will appear when being passed between the pressure rolls.

Fig. III shows a fragment of a metal sheet after the dull finish has been placed thereon.

A designates a pair of rotatable pressure rolls mounted on supporting shafts B, said pressure rolls being driven in any suitable manner.

C indicates metal sheets which have been previously rolled to the desired thickness, the surface of said metal sheets being smooth and bright as a result of said rolling operation.

Interposed between pairs of said metal sheets is an impression sheet D, which may be a sheet of material of any sort having a rough or fibrous surface, but preferably a sheet of paper of ordinary texture.

In carrying out the method, assume for the sake of simplicity that only two sheets of metal are being provided with dull faces. The metal sheets, as has already been stated, have been previously rolled in the usual manner until said sheets have been reduced to the desired thickness. The rolled metal sheets are placed together, as shown in Fig. I of the drawing, with the impression sheet D interposed between them. The metal sheets and the interposed impression sheet are then passed between the pressure rolls A and are subjected to just enough pressure to cause said impression sheet to be pressed firmly onto the adjacent faces of said metal sheets, thus slightly displacing the metal of said faces, whereby the rough faces of said impression sheet will be reproduced on the adjacent faces of the metal sheets. Due to the fact that the pressure to which the sheets are subjected is only enough to press the faces of the impression sheet firmly against the adjacent faces of the metal sheets, there is no perceptible elongation of said metal sheets, and for this reason there is no danger that the paper impression sheet will be mutilated by elongation to such an extent that the lines of mutilation will be indicated on the metal sheets.

In Fig. III of the drawing an attempt has been made to reproduce the dull face placed on a metal sheet by the method herein disclosed, but it is a rather difficult matter to reproduce said finish with any degree of accuracy with pen and ink; however, it is believed that a sufficient idea of the appearance of the finish will be obtained when it is said that the surface of the paper impression sheet is accurately reproduced on the metal sheet resulting in a face having innumerable infinitesimal grooves and ridges in the form of irregular fibers whereby a dull satinlike finish is obtained.

While the drawing shows a pair of metal sheets being acted upon to produce a dull finish thereon, it is apparent that more than one pair of metal sheets may be passed between the pressure rolls at one time, and also that the impression sheet may be so located with relation to said metal sheets that a dull finish will be placed on both faces of said metal sheets.

I claim:

1. The method herein described which comprises interposing an impression sheet between a plurality of metal sheets and subjecting said metal sheets to pressure to provide a dull finish on the faces of said metal sheets adjacent to said impression sheet, said

metal sheets only being in contact with the pressure-applying agency.

2. The method herein described which comprises interposing a sheet of paper between a plurality of metal sheets and then passing said metal sheets between rollers to apply pressure thereto and thus provide a dull finish on the faces of said metal sheets adjacent to said sheet of paper, said metal sheets onlv being in contact with said rollers.

In testimony that I claim the foregoing I hereunto affix my signature.

JOHN C. HEYER.