

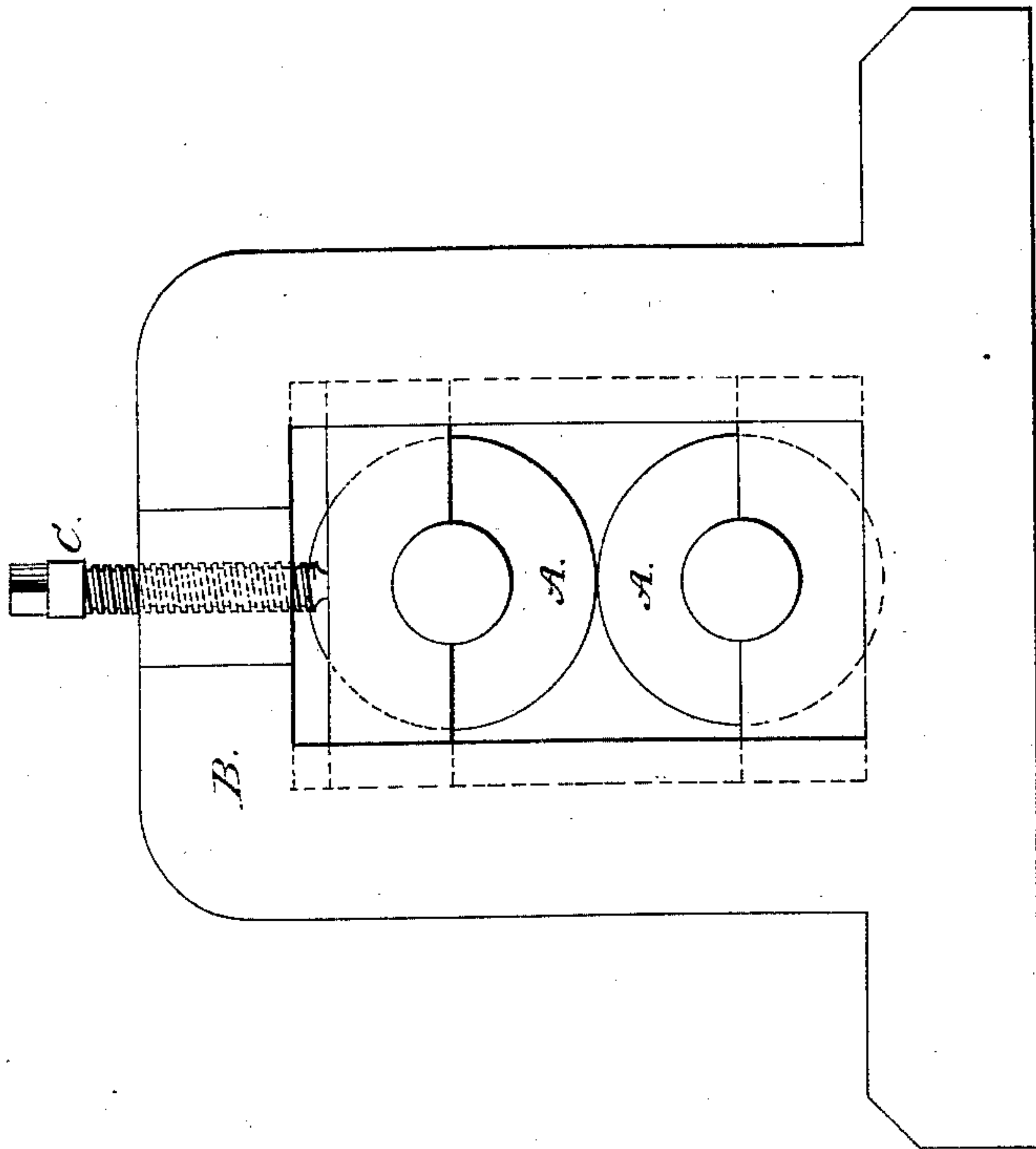
*D. A. Morris,*

*Rolling Sheet Iron,*

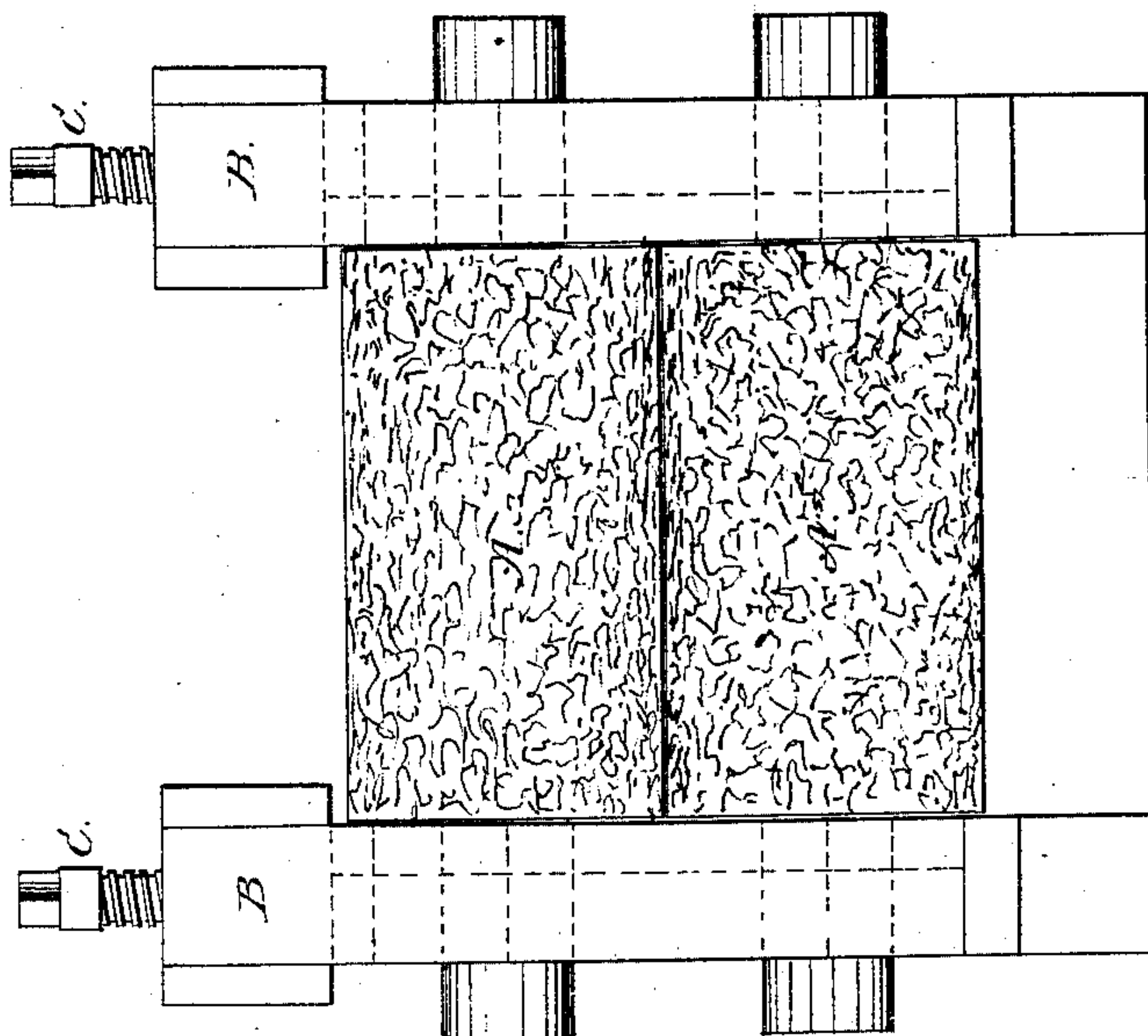
*Patented Oct. 5, 1858.*

*Nº 21,692.*

*Fig. 2.*



*Fig. 1.*



# UNITED STATES PATENT OFFICE.

DAVID A. MORRIS, OF PITTSBURG, PENNSYLVANIA.

## ROLL FOR MAKING SHEET-IRON.

Specification of Letters Patent No. 21,692, dated October 5, 1858.

*To all whom it may concern:*

Be it known that I, DAVID A. MORRIS, of the city of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement on Rolls for Rolling Sheet-Iron; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

The nature of my invention consists in making a mottled, chilled-iron roll for rolling sheet iron—in the following manner, viz:—I first have the rolls—chilled iron—turned off and finished very smoothly, then I dot or spot them all over with melted wax—the spots of wax may be large or small and can be arranged to suit the fancy of the maker;—after the roll has been properly waxed, I immerse it in dilute sulfuric acid (about one part acid and twelve or fourteen parts of water) where it should remain about eight or ten hours—or long enough to etch or eat in the depth required—then I place the roll in a lathe and finish it off with emery and oil, which takes off the sharp edges and gives the projections a rounded form.

Figure 1 is a side elevation of a pair of rolls and housings, and Fig. 2 is a side elevation of the same. A is the roll, and B is the housing.

I am aware that rolls have been hammered for the purpose of producing a planished appearance on sheet iron, but it is very evident that the reverse of the effect wanted on the sheet iron, will be the result of passing the sheets through hammered rolls, whereas the prominences on my etched rolls will give a perfect planished or dapped appearance to the iron. Another advantage to be derived from etching instead of hammering, is that I can etch chilled iron rolls, but it is impossible to hammer them.

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

The employment of mottled chilled iron rolls, for rolling sheet iron when constructed substantially as described.

D. A. MORRIS.

Witnesses:

WILLIAM COLTART,  
JOHN W. VIELLBERG,  
THOS. STEEL.