

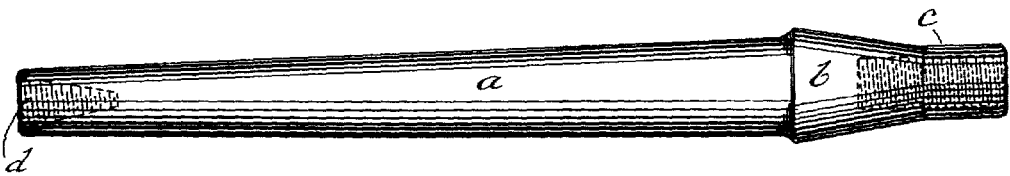
**DESIGN.**

No. 31,827.

Patented Nov. 14, 1899.

**C. JACKSON.**  
**BORING BAR.**

(Application filed Sept. 18, 1899.)



*Calvin Jackson* -

Inventor.

Witnesses

*David Levan*

*D. M. Stewart*

by

*[Signature]*

Attorney.

# UNITED STATES PATENT OFFICE.

CALVIN JACKSON, OF READING, PENNSYLVANIA.

## DESIGN FOR A BORING-BAR.

SPECIFICATION forming part of Design No. 31,827, dated November 14, 1899.

Application filed September 18, 1899. Serial No. 730,942. Term of patent 14 years.

*To all whom it may concern:*

Be it known that I, CALVIN JACKSON, a citizen of the United States of America, and a resident of Reading, in the county of Berks and State of Pennsylvania, have invented and produced a certain new and original Design for a Boring-Bar, of which the following is a specification.

My invention relates to a novel design of boring-bar for attachment to the tool-holder of a metal-working lathe.

As shown in the drawing, the design consists in the form of the boring-bar, which comprises

a conical head portion or stock *b* with a cylindrical extension *c* and a reversely-tapered conical body *a*.

What I claim is—

The design for a boring-bar substantially as shown and described.

Signed by me at Reading, Pennsylvania, this 4th day of September, 1899.

CALVIN JACKSON.

Witnesses:

W. G. STEWART,  
ADAM L. OTTERBEIN.