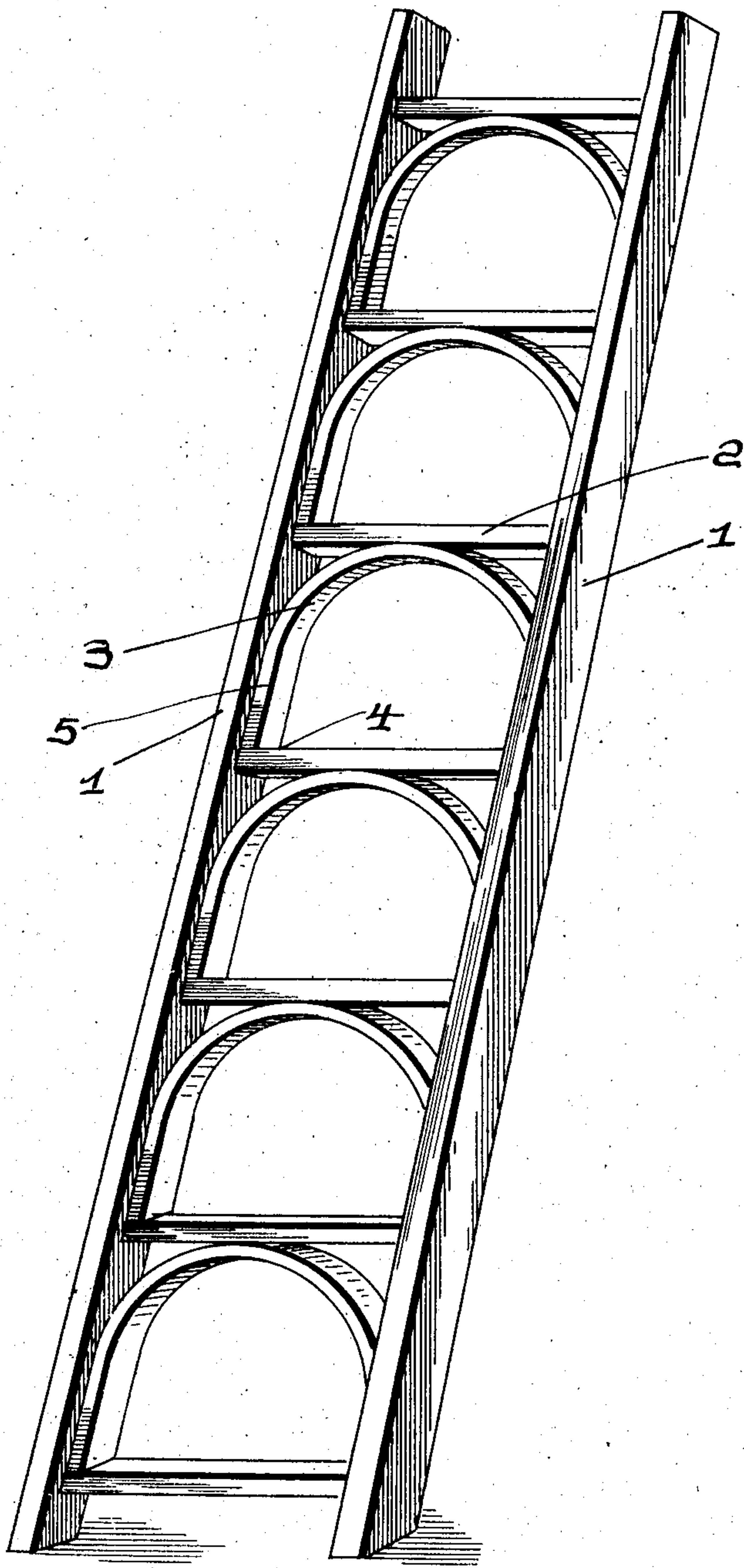


No. 834,653.

PATENTED OCT. 30, 1906.

J. P. BARRETT.
LADDER.

APPLICATION FILED FEB. 2, 1906.



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UNITED STATES PATENT OFFICE.

JOHN P. BARRETT, OF ROCHESTER MILLS, PENNSYLVANIA.

LADDER.

No. 834,653.

Specification of Letters Patent.

Patented Oct. 30, 1906.

Application filed February 2, 1906. Serial No. 299,155.

To all whom it may concern:

Be it known that I, JOHN P. BARRETT, a citizen of the United States of America, residing at Rochester Mills, in the county of Indiana and State of Pennsylvania, have invented certain new and useful Improvements in Ladders, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to certain new and useful improvements in ladders; and the invention has for its primary object the provision of novel means for bracing and supporting the various steps of a ladder, whereby a strong and durable, yet inexpensive, article will be provided which can be easily and quickly handled, similar to an ordinary type of ladder.

Briefly described, my invention resides in using arch-shaped straps between the steps of a ladder, the straps being supported by one step and bracing the next succeeding step and in this manner forming a strong, durable, and rigid structure wherein it will be impossible for the steps to cave in or break when a weight is supported by the same.

The detail construction of my improved ladder will be hereinafter more fully described and claimed, and, referring to the drawing accompanying this application, I have illustrated a perspective view of a ladder constructed in accordance with my invention.

The ladder comprises side rails 1 1, which may be of any desired length or constructed of any desired material, I preferably using wood in order to obtain a light and portable ladder. Between the rails 1 1 are arranged a plurality of equally-spaced transverse steps or rounds 2, between which are imposed arch-shaped straps 3, the ends of said straps resting upon the steps 2, as at 4, and against the inner side walls of the rails, as at 5. The arch-shaped portion of the straps 3 support the central portion of the next succeeding step 2 and may be secured thereto, if desired.

In practice I preferably construct the rails, as heretofore stated, of wood, this also being

true in connection with the steps, while the arch-shaped straps 3 will be constructed of light and durable material or may even be constructed of wood similar to the rails and the steps 2. When the central portions of the steps 2 are braced from each one of the successive steps, it will be impossible to collapse the arch-shaped straps 3 owing to their engagement with the inner side walls of the rails 1 1 and the successive step 2, and throughout the entire length of the ladder a rigid and non-collapsible structure will be provided.

The relative arrangement of the steps, the side rails, and arch-shaped straps braces the ladder both vertically and laterally, and by supporting the ends of said straps upon the rounds or steps of the ladder the employment of securing devices for said ends is avoided.

I do not care to confine myself to the type of ladder in connection with which the arch-shaped straps are used or to the manner of securing said straps to the rails and steps or rounds of a ladder.

Such changes in the arrangement and construction of my improved ladder as are permissible by the appended claim may be resorted to without departing from the spirit and scope of the invention.

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

A ladder comprising side rails, steps securing said side rails together, and braces for said steps, each brace comprising a substantially inverted-U-shaped wooden member and adapted to be placed between the said steps, the bow of said U-shaped member contacting with one step centrally of its ends, and the ends of said U-shaped member contacting with the step below said first-named step at its junctures with the side rails.

In testimony whereof I affix my signature in the presence of two witnesses.

JOHN P. BARRETT.

Witnesses:

FORREST B. WORK,
ALICE M. DOTY.