

G. SCHREYER.

Axle Skein.

No. 89,602.

Patented May 4, 1869.

Fig. 1

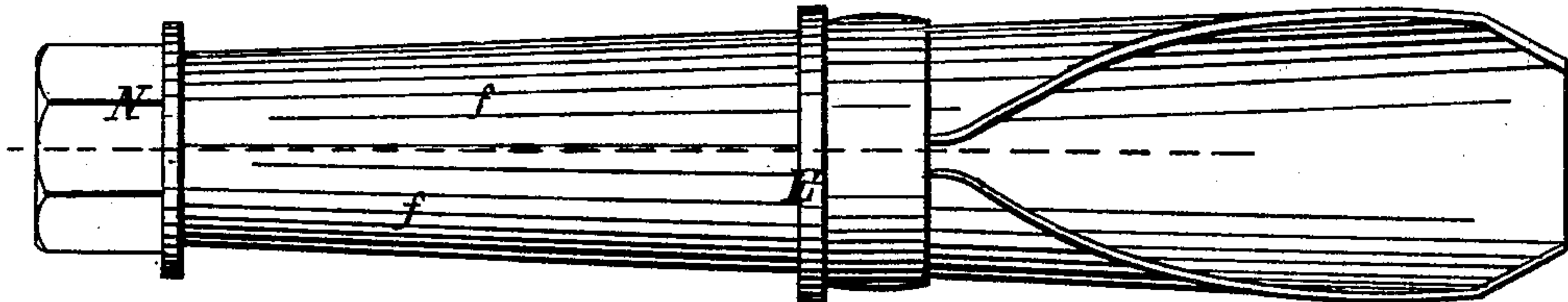


Fig. 7

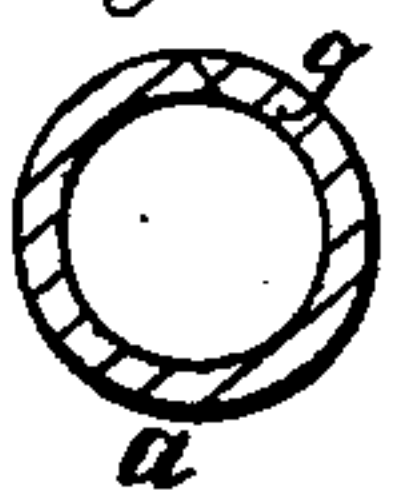


Fig. 2

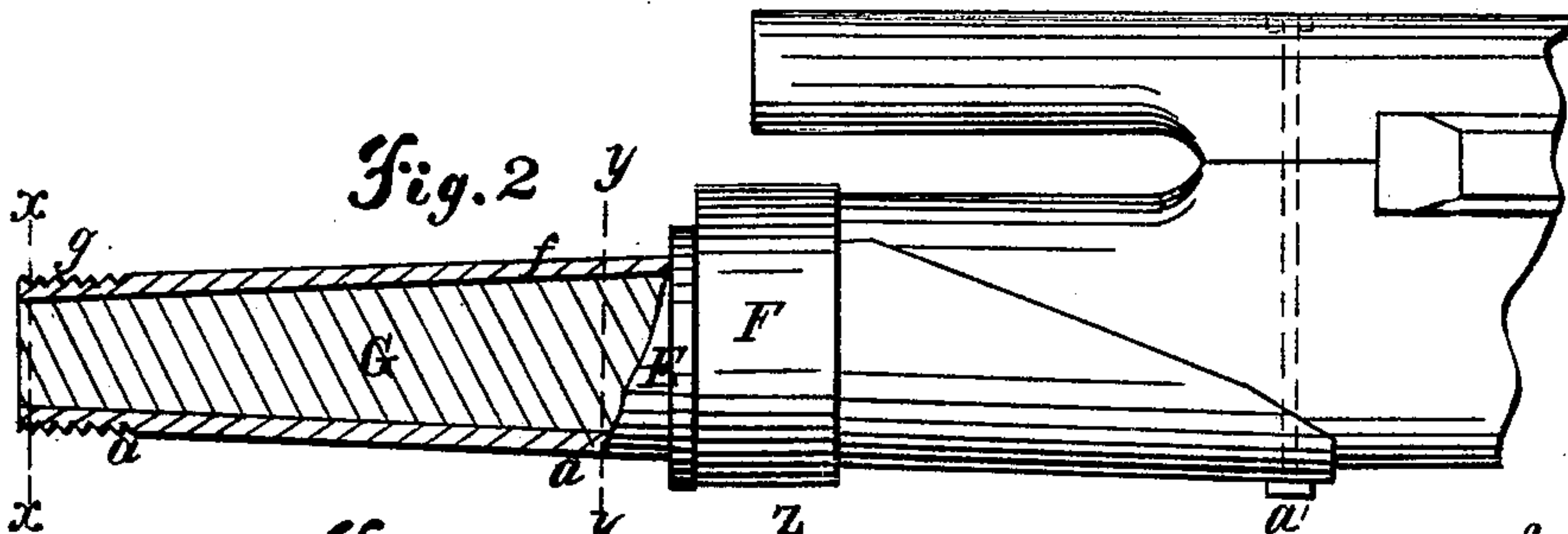


Fig. 4

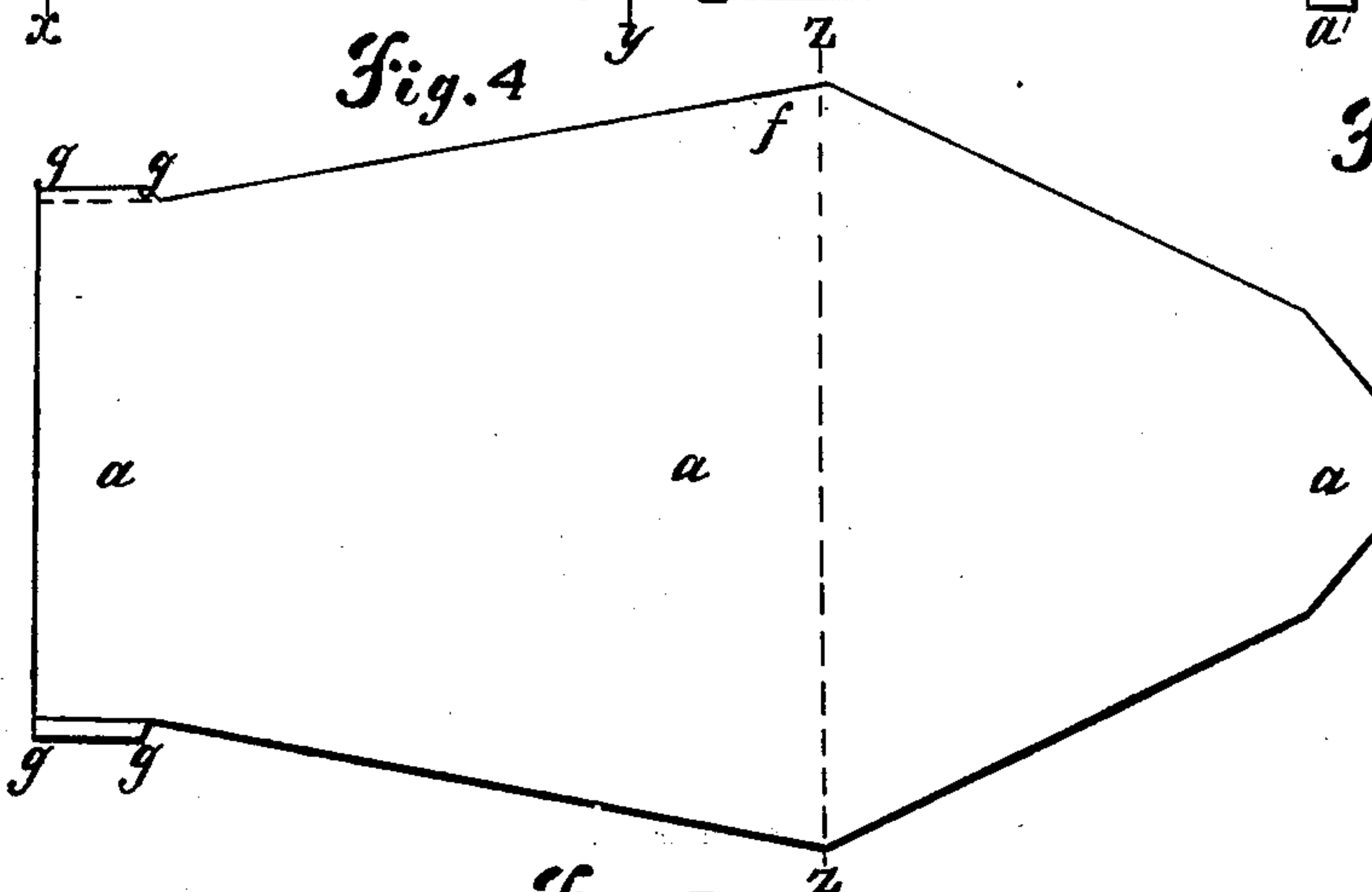


Fig. 6



Fig. 8

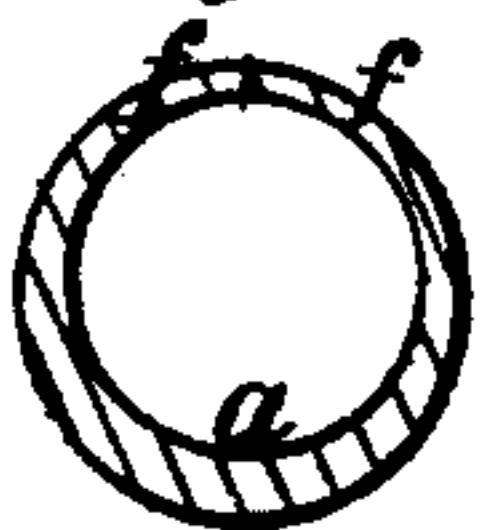
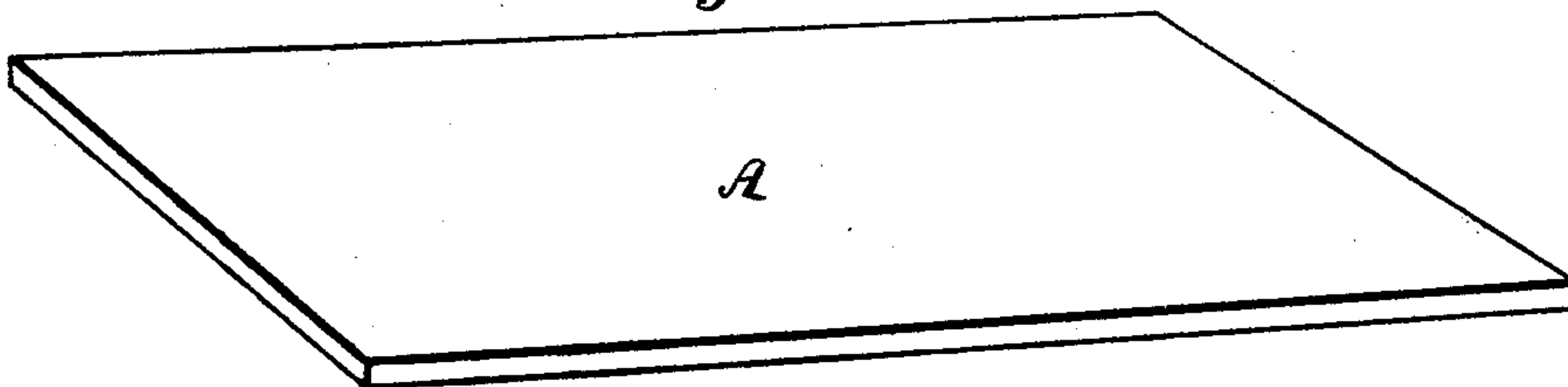


Fig. 5



Fig. 3



Witnesses
R. F. Campbell.
J. A. Campbell.

Inventor;
G. Schreyer
Wm. H. Smith & Son

United States Patent Office.

GOTTLIEB SCHREYER, OF COLUMBUS, OHIO.

Letters Patent No. 89,602, dated May 4, 1869.

IMPROVED AXLE-SKEIN.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, GOTTLIEB SCHREYER, of Columbus, in the county of Franklin, and State of Ohio, have invented a new and useful Improvement on Axle-Skeins; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a top view of the improved axle-skein complete.

Figure 2 is a section through an axle, having the improved skein applied to it.

Figure 3 is a perspective view of the blank or plate from which the improved skein is made.

Figure 4 shows the plate or blank after it has been shaped, ready for bending and welding, to form the skein.

Figure 5 is a longitudinal edge view of fig. 4.

Figure 6 is a cross-section through fig. 4, taken at the point indicated by line *z z*.

Figure 7 is a cross-section through fig. 2, taken at the point *x x*.

Figure 8 is a cross-section through fig. 2, taken at the point *y y*.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to a new and useful improvement which I have made on the axle-skein described in the schedule annexed to my Letters Patent of the United States, granted on the 7th day of May, 1861. The axle-skein therein described was made by first thinning the edges of a plate of metal of proper shape, and then bending this plate about a core, and welding its thinned edges together along the top of the skein, thereby having the metal thickest at the smallest end and also along the bottom of the skein, where it was subject to the greatest wear.

A plug, upon which a screw-thread was cut, was welded into the smallest end of the skein, and a collar upon it at the proper point, to receive the inner end of the nave of a wheel.

The nature of my invention and improvement consists in so shaping the blank, plate, or piece of metal of which the skein is produced by operations of bending and welding, that I am enabled to form, during said operations, a cylindrical open portion upon the smallest end of the skein, of uniform thickness of metal, upon which cylindrical portion the screw-thread is cut to receive the nut that keeps the wheel in place on the skein, thereby obviating much of the labor, expense, and loss of time required to insert the screw-plug, as described in my Letters Patent above referred to, and also preventing dry-rot from occurring in the wooden axle which receives the skein, as will be hereinafter explained.

To enable others skilled in the art to understand my invention, I will describe its construction and operation.

I take an oblong rectangular plate, A, fig. 3, of proper length, width, and of a uniform thickness, and

by a process of forging or rolling, I reduce its longitudinal edges from *f* to *g*, as indicated in figs. 5, 6, and 8, so as to leave its central portion at *a a* the thickest part. This plate thus bevelled is cut, so as to present about the shape shown in fig. 4, one portion of which is to form an open sheath, another portion the tapering body or barrel, and the other portion the cylindrical terminal end of the skein. Or, if desirable, the plate or blank may be cut from a sheet of steel, of the form shown in fig. 4, and its surfaces afterward bevelled or tapered.

By reference to figs. 5 and 6, and 7 and 8, the shape of the blank in cross-section will be clearly understood. My object is to have the thickest parts of the metal forming the skein at the points where the skein is subject to most wear, also to have the edges *f f* the thinnest where they are brought together on top of the skein, and finally to have that part of the blank which forms the cylindrical end *g*, equal in thickness to the thickest part *a* of the skein. These results I obtain by bevelling or reducing the plate from its centre to its edges for a greater portion of its length.

The blank, represented by fig. 4, is applied upon a suitable form, corresponding in shape and size to the shape and size of the axle upon which the finished skein is to be applied, and by processes of bending and welding the edges of the blank are brought together, lapped, and welded, so as to present the appearance shown in fig. 1.

The skein is then finished, ready for application to its axle by cutting a screw-thread upon its cylindrical open end *g*, which thread is designed to receive a nut, N, required at this point to keep the wheel upon its axle-arm.

The skein is now driven tightly on the axle-arm G, and a collar, F, and shoulder-band, E, driven on this arm, and shrunk tightly in their places, which, with a bolt, *a'*, securely confine the skein upon the axle-arm, and also afford an abutment for the inner end of the hub of the wheel when upon this skein.

It will be seen from the above description, and by the accompanying drawings, that I dispense with the screw-plug referred to in my Letters Patent above named, and apply the nut N directly upon the cylindrical end *g* of the skein; consequently I am enabled to leave this end open, which will prevent the wooden axle-arm G from injury by dry-rot.

In practice the meeting edges of the skein need not be welded, except at the points *g g* where the screw is applied.

What I claim as my invention, and desire to secure by Letters Patent as an improvement on my invention patented May 1, 1861, is—

The screw-thread *g*, formed upon the cylindrical end of the axle-skein, substantially in the manner and for the purpose herein set forth.

GOTTLIEB SCHREYER.

Witnesses:

MORTON E. BRASER,
C. H. RICE.