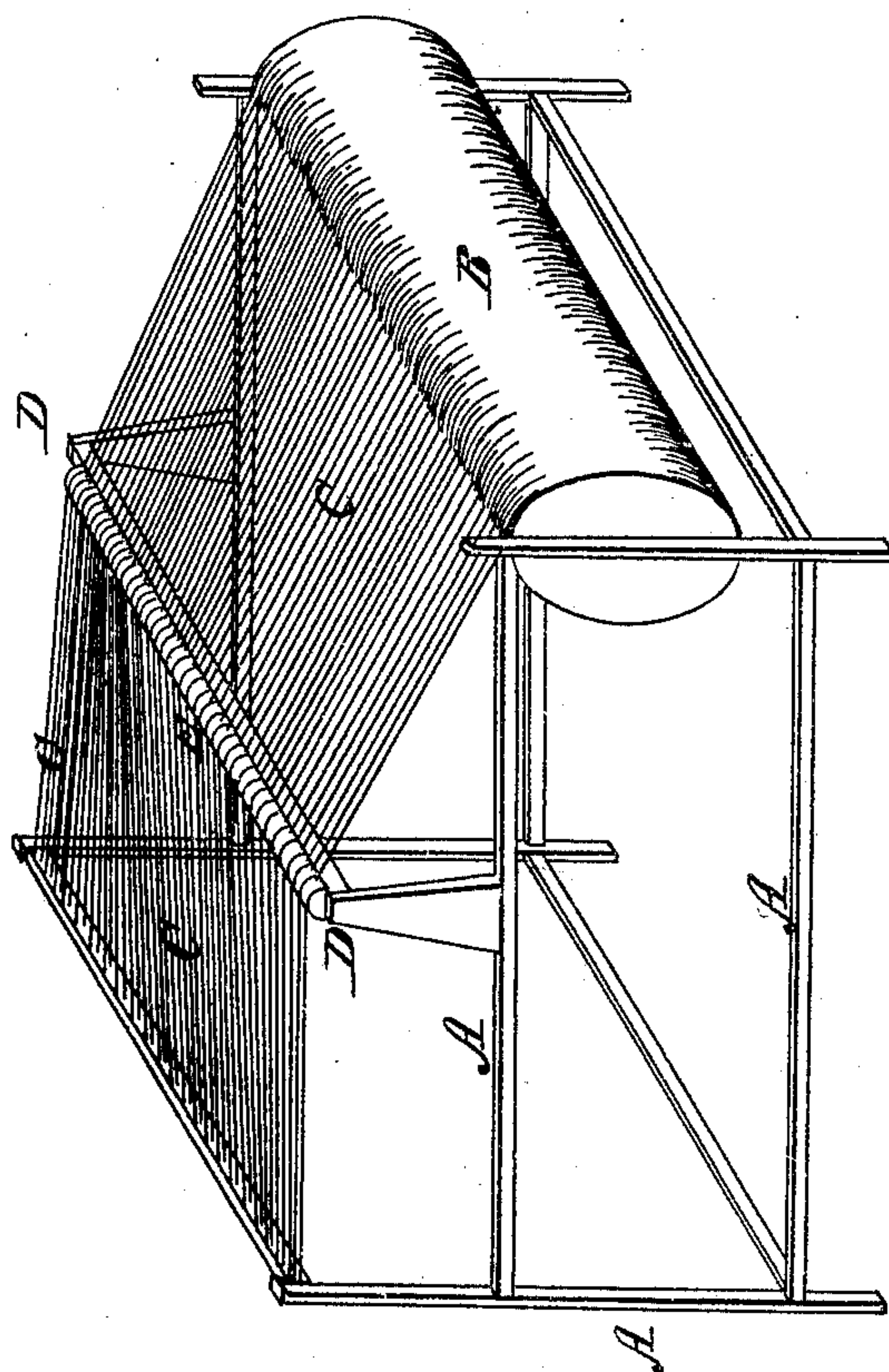


*W. Hayden.*  
*Warping Guide.*

*Nº 6,229.*

*Patented Mar. 27, 1849.*



# UNITED STATES PATENT OFFICE.

WHITING HAYDEN, OF WINDHAM, CONNECTICUT.

## IMPROVEMENT IN GUIDES FOR WARPERS.

Specification forming part of Letters Patent No. 6,229, dated March 27, 1849.

*To all whom it may concern:*

Be it known that I, WHITING HAYDEN, of the town and county of Windham, State of Connecticut, have invented or produced a new and improved warper-guide to be used in the manufacture of cotton or woolen goods in all cases when it is necessary to change the thread or yarn from one roller or cylinder to another; and I do hereby declare that the following is a full and exact description of the same, reference being made to the drawings which are placed on file accompanying this petition and specification.

My invention consists in the application of a spiral coil of wire (drawing E E,) which is placed behind the warp-beam B at a convenient distance, between the coils of which the yarn or warp C C passes in its course to the warp-beam, and by means of which the said yarn or warp is laid upon said warp-beam

with uniformity and regularity, the course and direction of such yarn or thread being easily regulated by the extension or contraction of the aforesaid coil of wire, which extension and contraction are accomplished by means of adjusting thumb - screws D D at either end of the same. The said coil of wire is laid in a finished groove of wood in which it should have free play, and by means of which it is retained in its place.

What I claim as my invention, and am desirous of securing by Letters Patent, is—

The application of the principle of contraction and expansion to the warper-guide, and for the purpose of accomplishing this I would make use of a metallic coil of wire.

WHITING HAYDEN.

Witnesses:

J. R. ARNOLD,  
D. W. NOYES.