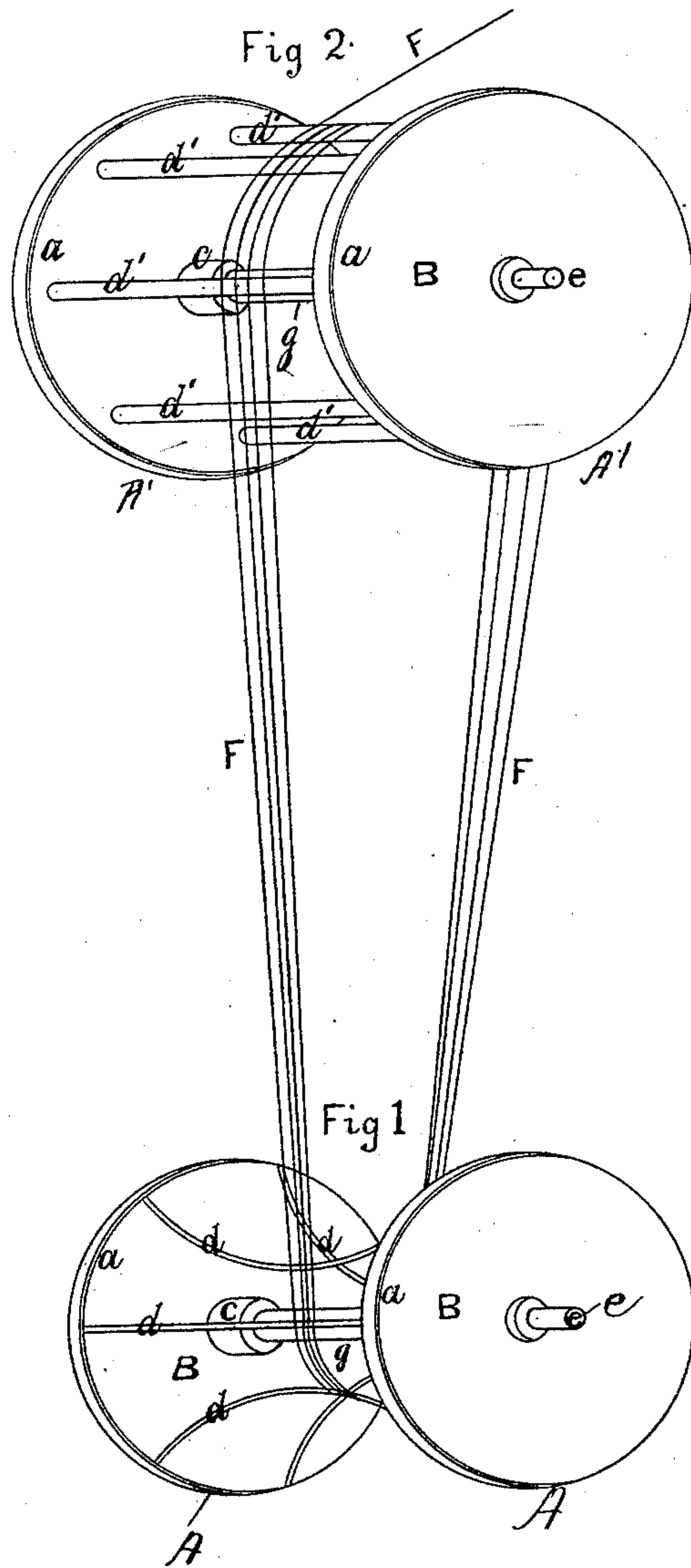


S. BROOKS.  
Reel for Silk.

No. 232,330.

Patented Sept. 21, 1880.



Witnesses  
*Richard D. Healy*  
*Jennie Inglis*

Inventor  
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# UNITED STATES PATENT OFFICE.

SAMUEL BROOKS, OF PATERSON, NEW JERSEY.

## REEL FOR SILK.

SPECIFICATION forming part of Letters Patent No. 232,330, dated September 21, 1880.

Application filed February 16, 1880.

*To all whom it may concern:*

Be it known that I, SAMUEL BROOKS, of the city of Paterson, county of Passaic, and State of New Jersey, have invented a new and useful Improvement in Reels for Silk and other Threads, of which the following is a specification.

My invention relates to reels or risers such as are used on winding-frames for winding silk and other threads.

The object of my invention is the production of a reel or riser that will be less liable to break when in use than the present reels.

Heretofore reels or risers have been constructed with wooden ends or disks composed of either a single thickness of wood or of two thicknesses glued together with the grain crossing each other. In the first instance the disks are liable to break and warp, and in the second instance the layers, being thin, are liable to break apart on account of unequal expansion and contraction, and if this takes place at the center the reel will run untruly. If toward the edges, they will open, and finally extend to the center with the objections noted above.

Reels have also been made of wood, in two thicknesses, with the grain crossed and a casing of metal over the entire surface and periphery of the reel; but even in this form of construction there is liability of the layers of wood to become separated from the causes named.

In order to remove the objections consequent upon the use of wooden ends in reels or risers, I make the ends or disks of a homogeneous material without grain, so that expansion and contraction are virtually compensated for in the material itself. This I find to be the case in paper, and I therefore make the disks of paper by gluing two or more layers together to get the desired thickness. The edges I cover or bind with a light metallic binding, which makes them perfectly smooth,

and prevents breaking apart if subjected to extraneous forces either in transportation or in use. Such disks may be subjected to varied extremes of heat and cold, or heat and dampness, without being impaired thereby.

In the accompanying drawings, in which similar letters of reference refer to similar parts, Figure 1 is a perspective view of a reel or riser having concave wires running across from one disk to the other to support the thread to be unwound, and Fig. 2 is a perspective view of a reel with light wooden rounds extending from one end or disk to the other.

B indicates the paper ends or disks with their edges bound or held by the metallic binding *a*. The ends are connected by a shaft, *g*, having journals *e* and barrels *c*, which prevent the disks from running or slipping on the shaft.

I have represented a skein of thread, *F*, as supported by the reels in position for operation, the thread passing around the wires *d* and the wooden rounds *d'*.

I am aware that spools or bobbins have been made with the ends or disks of wood in two thicknesses, with the grain crossed, and a casing or cap of metal extending around the entire surface and over the periphery of the disk, as hereinbefore described.

I am also aware that papier-maché has been employed in the construction of spools, and that paper rolled into tubes and then formed into spools has been used, and as such are not new I do not claim them; but

What I do claim is—

The ends or disks *B*, composed of two or more layers of paper glued together and provided with the narrow metallic binding *a* around the edges of the disks, substantially as described.

SAMUEL BROOKS.

Witnesses:

JENNIE INGLIS,  
JOHN INGLIS.