

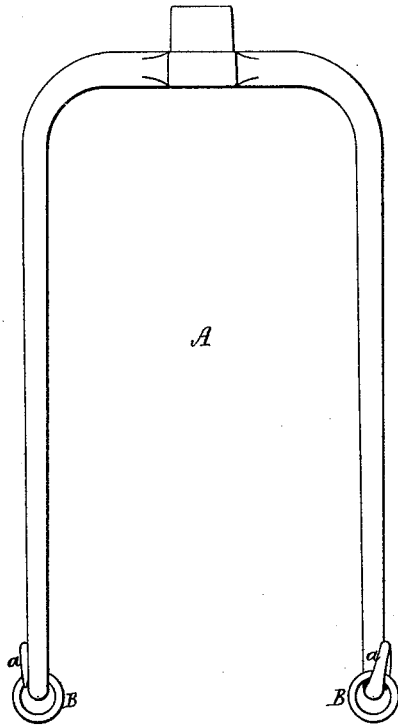
F. P. HOLT.

FLYERS FOR SPINNING MACHINERY.

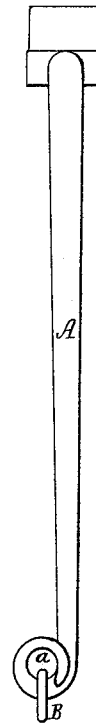
No. 181,002.

Patented Aug. 15. 1876.

*Fig. 1*



*Fig. 2*



Witnesses.

*S. W. Piper*

*L. W. Müller*

Frank P. Holt,

*by his attorney*

*R. Eddy*

# UNITED STATES PATENT OFFICE.

FRANK P. HOLT, OF LACONIA, NEW HAMPSHIRE.

## IMPROVEMENT IN FLIERS FOR SPINNING MACHINERY.

Specification forming part of Letters Patent No. **181,002**, dated August 15, 1876; application filed February 21, 1876.

*To all whom it may concern:*

Be it known that I, FRANK P. HOLT, of Laconia, of the county of Belknap, of the State of New Hampshire, have invented a new and useful Improvement in Fliers for Machinery for Spinning Fibrous Materials; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a front elevation, and Fig. 2 an edge view, of a flier embracing my improvement, which consists in the combination of a loose ring with either or each of the legs of the flier, such ring being to receive the yarn and guide it in its passage to the bobbin.

In the drawings, A denotes a common flier, having to each leg, at its foot, a loose ring, B, arranged, as shown, within an eye, *a*, formed

by bending the leg around in a circle or helix. The yarn, in going from the flier-leg to the bobbin or spool, passes through the ring, which, hanging loosely in the eye, can readily turn therein, so as not to become worn or cut through transversely by the yarn, as the helical hook of a common flier is usually worn.

The object of my invention is to save the guide of the flier-leg from being so worn or cut.

I claim—

A flier, A, provided with a loose ring, B, to either or each of its arms, such ring being applied to the said arm substantially in manner and for use as specified.

FRANK P. HOLT.

Witnesses:

R. H. EDDY,  
J. R. SNOW.