C. Hyde.

Flyer.

No. 53,449. Patented Mar. 27, 1866.

Fig. 2.

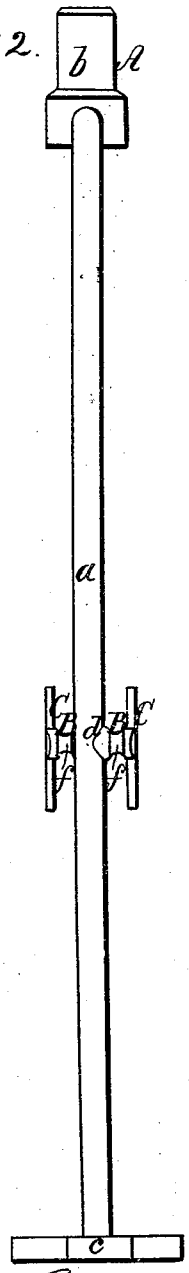
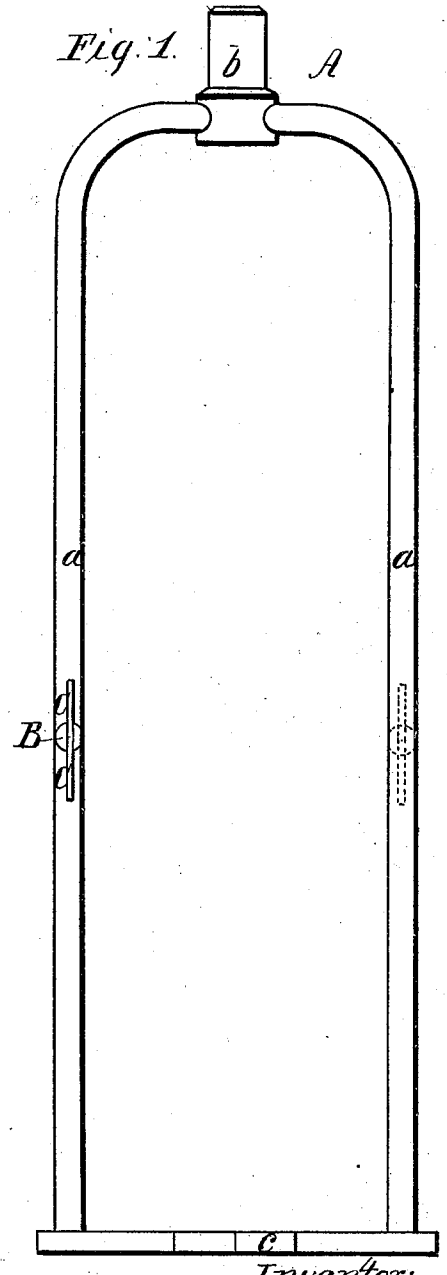


Fig. 3.



Fig. 1.



Witnesses:
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UNITED STATES PATENT OFFICE.

CHARLES HYDE, OF NORTH CHELMSFORD, MASSACHUSETTS.

IMPROVEMENT IN FLIERS FOR SPINNING MACHINERY.

Specification forming part of Letters Patent No. **53,449**, dated March 27, 1866.

To all whom it may concern:

Be it known that I, CHARLES HYDE, of North Chelmsford, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Fliers for Machinery for Spinning or Twisting Fibrous Materials; and I 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 view, and Fig. 2 an edge view, of a flier as provided with my invention, which consists in the combination of a projection socketed at its ends with the flier, and with a wire made to extend either above or below, or both above and below, the said projection; and my invention further consists in the construction of the socketed projection with a groove going either wholly or partially around it, the purpose of such groove being to prevent the flier-arm from being worn by the yarn at the junction of the projection with such arm. The object of the socketed projection is not only to save the necessity of weakening the flier-arm by boring a hole into it for the support of the guide, but it is to afford a better support for the guide-wire than the latter has when inserted in the flier-arm in the ordinary manner. Fig. 3 is a top view of the socketed projection as separate from the flier and guide.

In the said drawings, A denotes a flier, of which *a a* are the arms; *b*, the neck, and *c* the base. The projection B is formed with two sockets, *d e*, one being to receive and embrace the flier-arm, and the other being to receive the guide-wire C. The projection is to be grooved transversely, as shown at *f*, such groove being carried either wholly or partially around the projection. This groove receives the yarn in its passage to the bobbin of the flier and prevents such yarn from cutting into and wearing the solder by which the projection B is to be affixed to the flier-arm *a*.

The groove *e*, after the guide C (which is a straight piece of wire) is laid within it, is to have solder run into it, so as to confine the guide in place or to the projection. Extending the guide above the projection is advantageous in some kinds of spinning, especially when the yarn is wound one or more times about the projection; and it is still more advantageous to have the guide extended both above and below the projection in manner as represented in the drawings, for in this way it may be made to serve to belay the yarn to the flier in case the same may at any time be desirable. By extending it below the projection the guide answers the purpose of the ordinary hook or guide as generally applied to the flier-arm.

By having the guard laid in and soldered to the projection it becomes an easy matter to detach the guard therefrom whenever it may be too much worn by the yarn. Thus we can save the projection without the necessity of detaching it from the flier-arm whenever a fresh guard may be required. Were the guard and projection made of one piece of metal the projection would be useless when the guard should become too much worn for being used to advantage.

I do not claim a hook inserted in the flier-arm and made in the ordinary manner.

I claim as my invention—

1. The combination of the projection B, socketed at its ends, with the flier A and the wire or guard C, applied so as to extend either above or below, or both above and below, the projection, as specified.

2. The socketed projection as made with a groove, *f*, going either wholly or partially around it, substantially as and for the purpose hereinbefore set forth.

CHARLES HYDE.

Witnesses:

R. H. EDDY,

F. P. HALE, Jr.