

(No Model.)

J. A. V. SMITH.

FLIER FOR SPINNING MACHINES.

No. 356,336.

Patented Jan. 18, 1887.

Fig: 1.

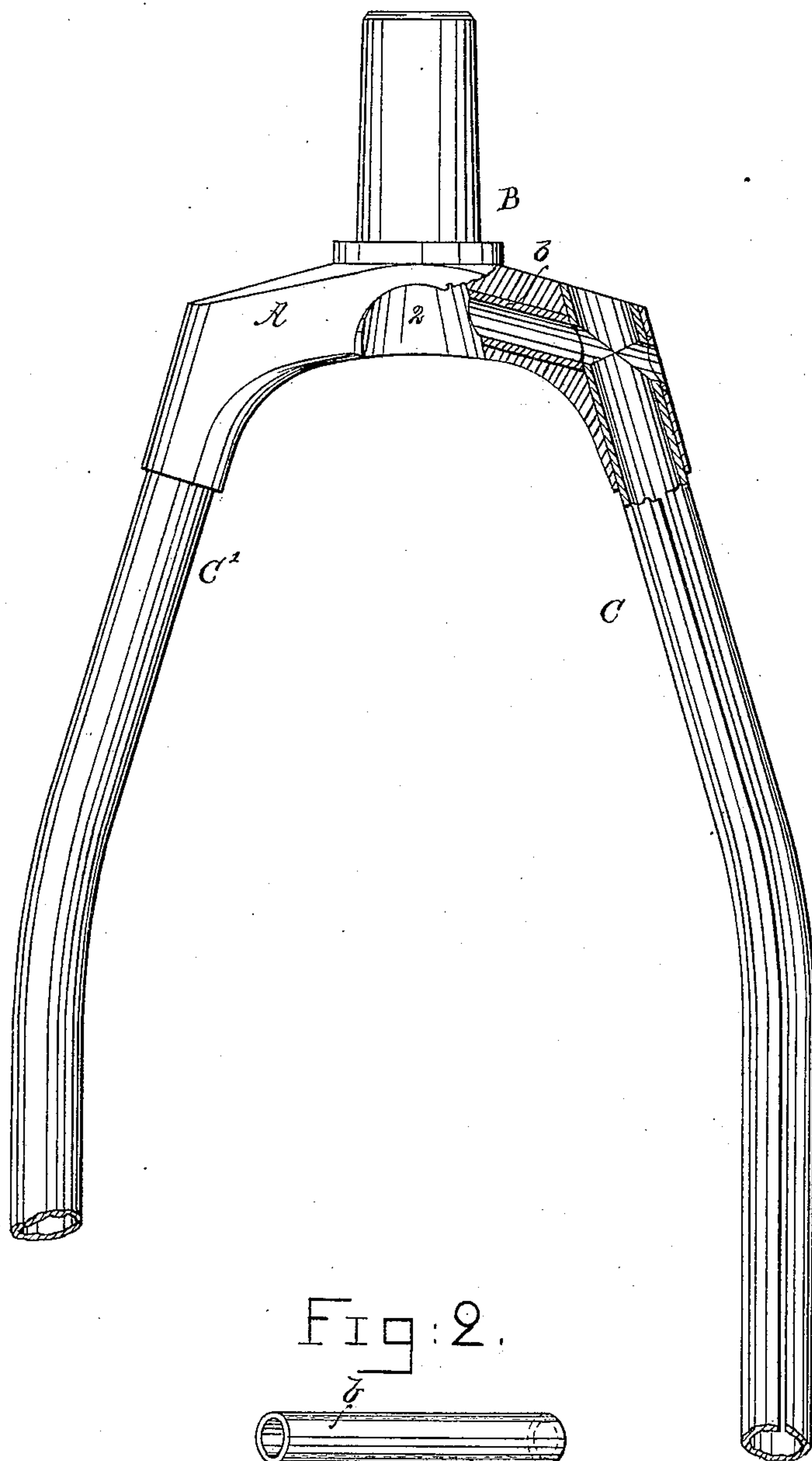


Fig: 2.

Witnesses,
Henry Marsh.
Arthur Lippman.

Inventor,
John A. V. Smith.
by Crosby & Gregory attys.

UNITED STATES PATENT OFFICE.

JOHN A. V. SMITH, OF MANCHESTER, NEW HAMPSHIRE.

FLIER FOR SPINNING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 356,336, dated January 18, 1887.

Application filed February 27, 1884. Serial No. 122,171. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. V. SMITH, of Manchester, county of Hillsborough, State of New Hampshire, have invented an Improvement in Fliers for Spinning-Machines, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

10 In that class of fliers having cast-metal necks to receive the legs of the flier, and having a roving passage or throat produced by casting about a core, great difficulty is experienced from rough places, spots, or blow-
15 holes in the walls of the said passage or throat, upon which rough places the roving rubs and has its fibers caught. To obviate these rough places formed by casting, and which are frequently so deep that they cannot be removed
20 by boring, and yet leave the neck in proper condition, I have provided the throat of the arm of the flier-neck with a lining, made as a tube inserted in the said throat, as will be described.

25 By way of differentiating my invention, I may here state that in the United States Letters Patent No. 227,015 the nose and neck of the flier has two projections, forming with it an inverted Y, and the flier-legs are driven
30 into the diverging arms of this Y, and to this extent line it; but obviously it is impossible to extend the legs into a flier-head such as that herein shown and described, where the outlets from the nose and neck extend out
35 sidewise and nearly horizontally from the nose, and are intersected at nearly right angles by the legs. Now, my invention resides in such a flier-neck, rather than broadly in applying a tube to a flier neck or nose.

40 Figure 1 shows a sufficient portion of the upper end of a flier to indicate my improvement, the flier-neck being partially broken out; and Fig. 2 represents the lining-tube removed.

45 The neck A of the flier, having the nose B, will be produced by casting, and by the employment of cores the said neck will be provided with the usual holes for the passage of the roving and for the reception of the upper
50 end of the flier-legs C C', substantially as in United States Patent No. 110,617.

Referring to that patent, the so-called "throat" is not lined, and if the casting con-

tains rough places of any considerable size or depth they cannot be economically removed 55 and yet leave the neck of proper strength and weight.

To obviate rough places and present a very smooth surface at the interior of the throat, along and in contact with which the roving 60 may pass from the usual central passage at the center of the nose B into the opening made in the side of the neck for the reception of the flier-leg C, I have bored or reamed the neck from its outer side to the central opening or 65 space, 2, of the nose, and the hole so bored having been made straight I drive or force into it a lining, b, preferably made as a steel tube. (Shown in Fig. 2, and in section, Fig. 1.) Then the said neck and tube are bored 70 through in the line of the leg-receiving passage, and the hollow leg C, preferably of steel, is inserted therein, and solder or brazing material having been applied, as usual, the neck and its parts described are subjected to the 75 necessary heat to solder or braze the said lining and leg in place, as shown in the drawings, thus constituting a smooth surface of fine metal more or less polished, according to the extent of polish to which the lining is sub- 80 jected.

The lining for what is denominated the "neck" is polished, to make the same very smooth, so that the roving cannot possibly find any rough spot upon which to catch. 85

After the parts have been soldered and brazed in place, as described, the leg is bored through in line with the lining, thus making a smooth passage for the roving from the neck into the leg, down which it is conducted to 90 the usual presser. (Not shown.)

I claim--

The cast-metal neck A, constructed and arranged substantially as set forth, combined with the tubular metal lining b in such neck, 95 and the flier-leg C, intersecting such neck and its lining at substantially right angles and opening into the said tubular lining, substantially as set forth.

In testimony whereof I have signed my name 100 to this specification in the presence of two subscribing witnesses.

JOHN A. V. SMITH.

Witnesses:

CHAS. H. BARTLETT,
FRED J. CRANY.