

No. 742,555.

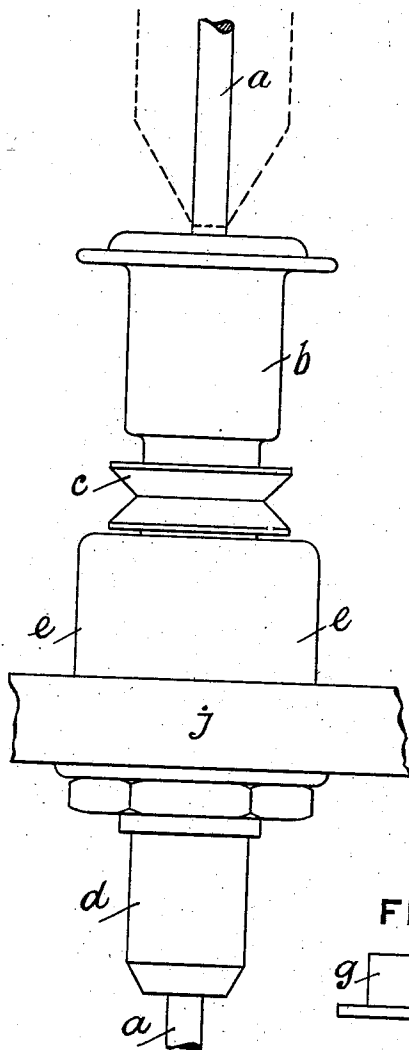
PATENTED OCT. 27, 1903.

T. ASHWORTH.
APPARATUS FOR SPINNING AND DOUBLING.

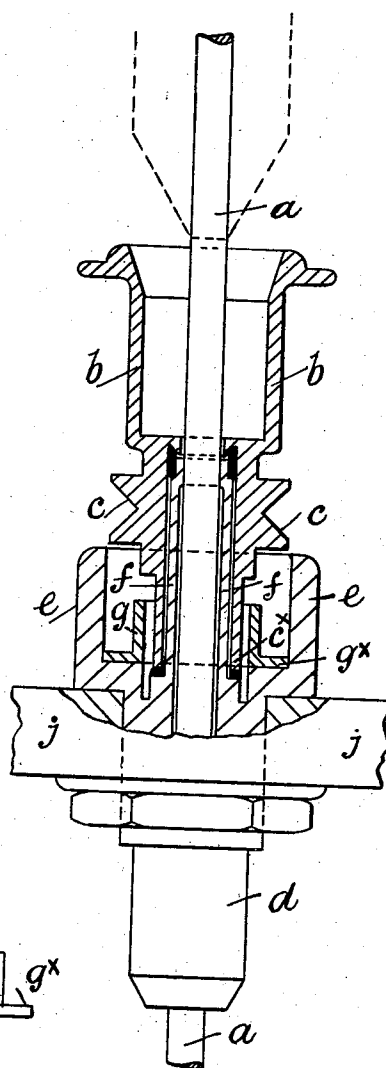
APPLICATION FILED OCT. 4, 1902.

NO MODEL.

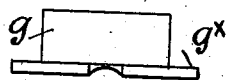
FIC.1



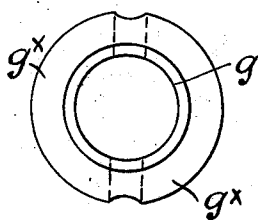
FIC.2



FIC.3



FIC.4



WITNESSES:

P. W. Wright,
E. W. Collins

INVENTOR

THOMAS ASHWORTH

BY

Horton and Horton
HIS ATTORNEYS.

UNITED STATES PATENT OFFICE.

THOMAS ASHWORTH, OF URMSTON, NEAR MANCHESTER, ENGLAND, AS-
SIGNOR OF ONE-HALF TO JOSEPH SHAW GAUNT, OF MANCHESTER,
ENGLAND.

APPARATUS FOR SPINNING AND DOUBLING.

SPECIFICATION forming part of Letters Patent No. 742,555, dated October 27, 1903.

Application filed October 4, 1902. Serial No. 125,893. (No model.)

To all whom it may concern:

Be it known that I, THOMAS ASHWORTH, a subject of the King of Great Britain and Ireland, residing at Urmston, near Manchester, in the county of Lancaster, England, have invented new and useful Improvements in Apparatus for Spinning and Doubling Cotton and other Fibrous Substances, of which the following is a specification.

10 This invention relates to improvements on the subject-matter of a prior patent for the United States of America granted to me, bearing date October 5, 1898, No. 613,106; and the object of the present invention is to prevent the oil employed for the lubrication of the bolster - cup bearings from becoming "sudded" or formed into a frothy state; and I do hereby declare that the following is a full, clear, and exact description of my said invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying sheet of drawings, and to the letters of reference marked thereon, which form
25 a part of this specification.

Figure 1 on the drawings is an elevation, and Fig. 2 a partial vertical section of so much of the spindle and its adjuncts as is necessary to illustrate my invention. Figs. 30 3 and 4 are detached elevation and plan views of a certain portion thereof hereinafter more particularly referred to.

a is the spindle; *b*, the cup-shaped flier with its wharve *c*; and *d* is the bolster, which supports both the spindle and the flier and is made with an oil-cup *e* and an inner tube *f* and fixed in the rail *j*, as usual.

For the purpose of my invention I introduce into the interior of the oil-cup *e* (which
40 is made of one piece with the fixed bolster *d*,

as usual) a short loose tube or sleeve (see also detached views, Figs. 3 and 4) and having a flange *g*^x at its lower end fitting the interior of the oil-cup *e* and resting flatly upon the base thereof.

The cup-shaped flier *b* revolves closely at top and bottom on the internal tube *f* of the bolster and is provided with a wharve *c* for the driving-band, the lower side of the wharve being just above the oil-cup *e* and the lower boss of the said wharve passing inside the oil-cup, and the tubular extension *c*^x thereof revolving freely inside the short loose tube or sleeve *g*, above mentioned, prevents the revolution of the lower tube of the flier *b* from "sudding" or churning the oil in the cup *e* into a frothy state.

I claim as my invention—

A bolster, having an oil-cup with an internal tube a spindle supported in the bolster, 60 a cup-shaped flier having a wharve and a tubular extension surrounding and rotating on said tube and resting within the lower part of the oil-cup, and a loose sleeve surrounding the tubular extension of the flier 65 and within the oil-cup, said sleeve having an outwardly-extending flange, fitted within and resting flatly on the bottom of the oil-cup, whereby a small concentric chamber for oil is secured surrounding the tubular extension 70 and the sudding of oil is prevented, substantially as described.

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

THOMAS ASHWORTH.

Witnesses:

JNO. HUGHES,
J. ERNEST HUGHES.