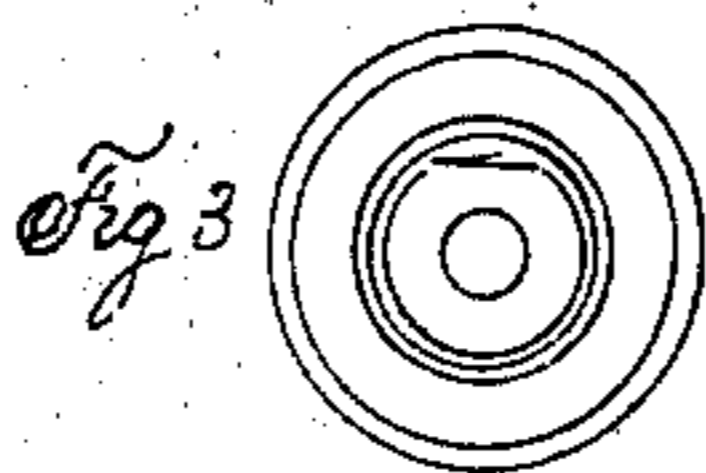
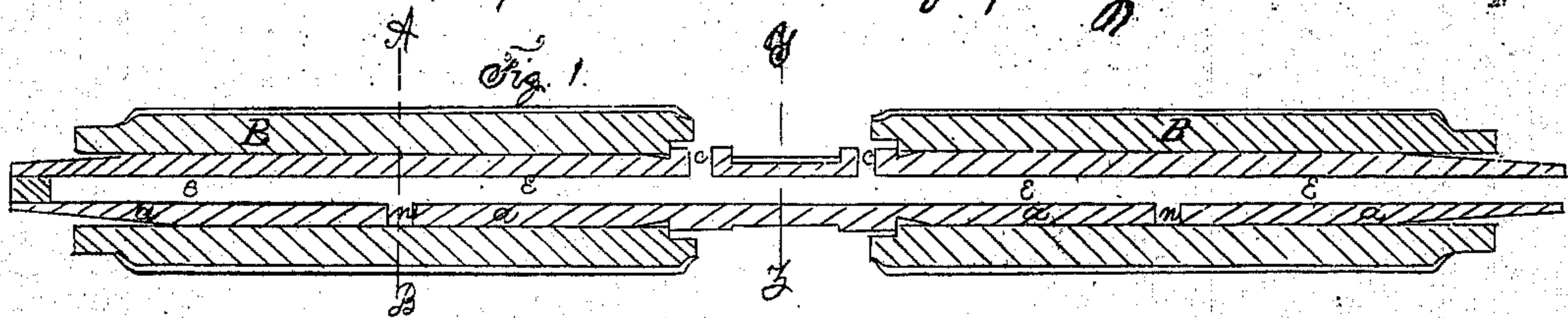
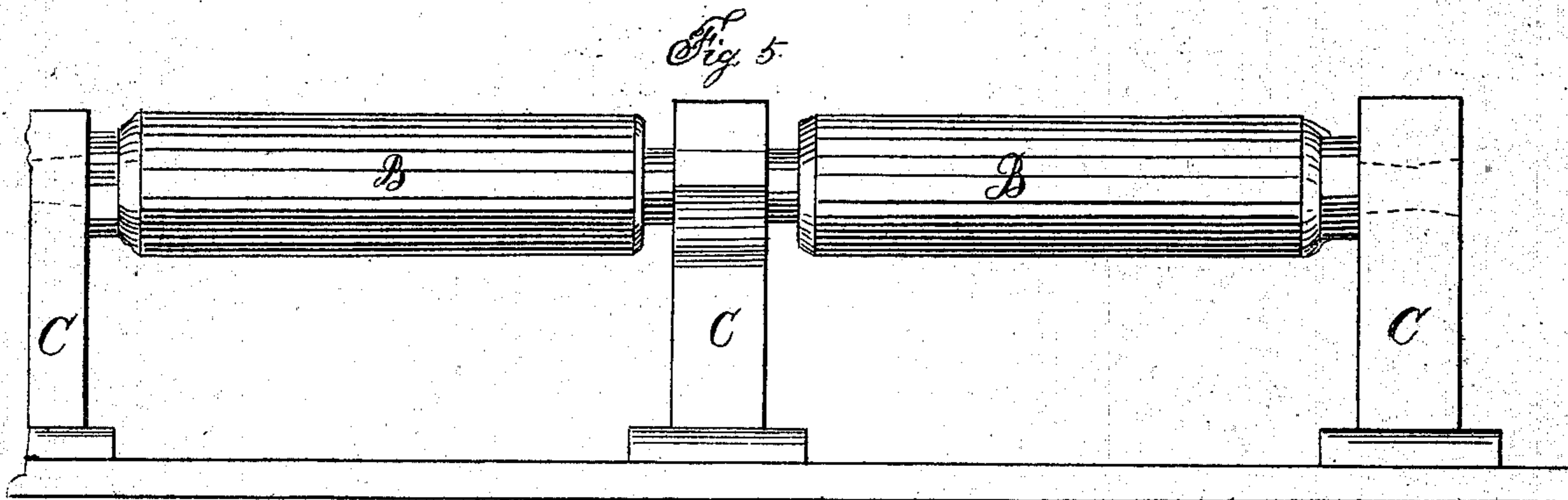


Frederick C. Fuller
of Lowell, Mass.
Improvements in shell rolls for spinning machines.



71477

PATENTED
NOV 26 1867



Witnesses:
John E. Crane
Harrison R. Green

Inventor:
Frederick C. Fuller

United States Patent Office.

FREDERICK C. FULLER, OF LOWELL, MASSACHUSETTS.

Letters Patent No. 71,477, dated November 26, 1867.

IMPROVEMENT IN LUBRICATING-ROLLERS IN SPINNING-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

TO WHOM IT MAY CONCERN:

Be it known that I, FREDERICK C. FULLER, of Lowell, in the county of Middlesex, and State of Massachusetts, have invented certain new and useful Improvements in Shell-Rolls which are used in Spinning-Machines for drawing the roving or sliver before it reaches the spinning-fiers and the bobbins, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which--

Figure 1 represents a central longitudinal section of an ordinary shell-roll with my improvements applied thereto.

Figures 2 and 3 are transverse sections on the lines A B and Y Z respectively.

Figure 4, an end view, and

Figure 5 a front view of the roll as it is applied to the supporting-stands C, which are arranged on the top of the spinning-machines a little back of the fier-plates.

This invention consists in the employment of a hollow arbor, *a*, which has oil-holes *c* near the centre of its length, communicating with the central passage *e* of the arbor, and also oil-holes *n*, which lead from the central passage to the inner surface of the shell-rolls B, the object of which oil-holes and the central passage is to oil or lubricate the inner surface of the shell-rolls, and the outer surface of the arbor on which said shell-rolls rotate, without removing the rolls from the arbor, or the arbor from the roller-stands.

In the use of the ordinary shell-rolls for spinning and drawing-machines, the arbors being rolled in order to oil the bearings between the inner surface of the rolls and the outer surface of the arbor, it is necessary to disengage the stirrups which hold the rolls down into the driving-rolls, and then remove the arbor and the rolls from the supporting-stands, and then remove the rolls from the arbor, to get at the arbor in a manner to apply the oil or lubricating substances. After oiling the arbors, the shell-rolls are slid into the arbors, and the arbor and rolls replaced in the stands or bearings, and the stirrups readjusted. This operation of oiling the ordinary shell-rolls is very slow, tedious, and expensive, as much valuable time is wasted by the machine remaining at rest during the entire operation of oiling from fifty to two hundred or more of the shell-rolls on each machine. Either or both ends of the arbor may be plugged to prevent the escape of oil therefrom. In the use of my invention on the spinning or drawing-machines, it is not necessary to stop the machine at all, but the oiling of the shell-rolls may be done at any convenient time, and without the least interruption to the operation of the machine, the inlet oil-holes *c* being always upward.

My improvement in shell-rolls is well adapted to any kind of spinning or drawing-machines, or to any machine used for drawing, spinning, or twisting fibrous substances, yarns, or threads, and is very useful in them all.

What I claim as new, and desire to secure by Letters Patent, is--

The central passage *e*, and oil-holes *c* and *n* in the arbor *a* of the shell-rolls, for the purpose and substantially as described.

FREDERICK C. FULLER.

Witnesses:

JOHN E. CRANE,

HERMON N. GREEN.