

A. HITCHON.
SEPARATOR FOR RING SPINNING MACHINES.
APPLICATION FILED FEB. 27, 1911.

1,031,265.

Patented July 2, 1912.

2 SHEETS—SHEET 1.

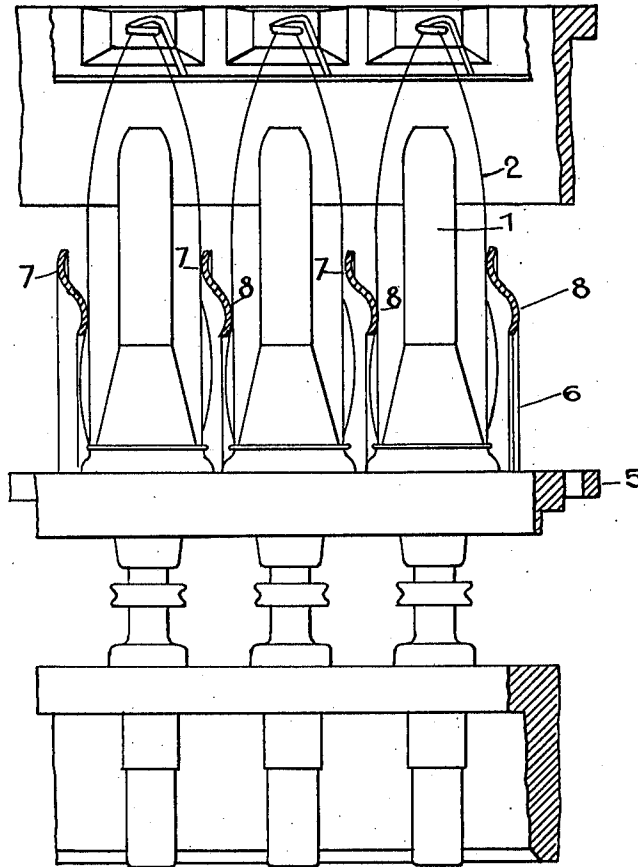


FIG. 1.

WITNESSES:

Ada E. Haperty
Elsa B. Hanna

INVENTOR

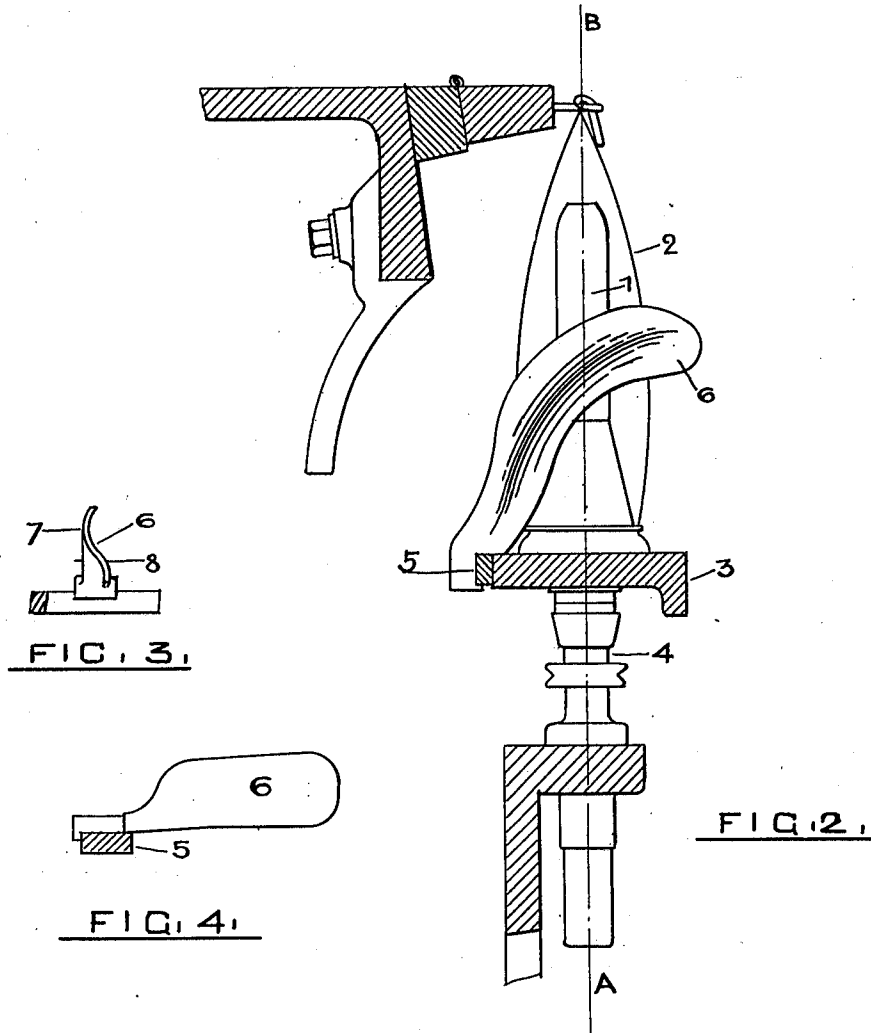
Alfred Hitchon
Joseph A. Miller
Atty.

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Ada F. Hagerty.
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INVENTOR,

Alfred Hitchon
by Joseph A. Miller
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UNITED STATES PATENT OFFICE.

ALFRED HITCHON, OF CLAYTON-LE-DALE, ENGLAND.

SEPARATOR FOR RING-SPINNING MACHINES.

1,031,265.

Specification of Letters Patent.

Patented July 2, 1912.

Application filed February 27, 1911. Serial No. 611,182.

To all whom it may concern:

Be it known that I, ALFRED HITCHON, a subject of the King of Great Britain, residing at Clayton-le-Dale, Lancashire, England, have invented a new and useful Improvement in Separators for Ring-Spinning Machines, of which the following is a specification.

This invention relates to improvements in spinning machines and has particular reference to the separators.

The principal object of the invention is to so construct a separator that it will have two points of contact, one of said points being for the balloon of one spindle, while the other point is for the balloon of the next adjacent spindle, the said points of contact of said separator being spaced apart but not in the same plane.

A further object of the invention is to increase the finger room by so constructing the separator that when spaced a maximum distance all the finger room will be available on one side of the ring.

Referring to the accompanying drawings, which form part of this specification, Figure 1 is a front elevation of a portion of a spinning machine, showing a number of spindles, bobbins and separators in position. Fig. 2 is a sectional elevation of Fig. 1, Fig. 3 is a front view of a type of separator constructed in accordance with my invention and Fig. 4 is a side view of the same.

In Fig. 1 the separator is shown in section at the point where it is cut by the line A—B of Fig. 2.

Referring more particularly to the said drawings, 1 indicates the bobbin on which the yarn is being wound. The yarn is shown as in full balloon as at 2.

3 indicates the ring rail, 4 the spindle, 5 the hinged bar to which the separators are secured. This carrying bar 5 may be secured to the ring rail, as shown, to travel therewith or may be otherwise supported in the machine as it simply shows one form of support for the separators, it being evident that any of the well known forms of supports for separators may be used with my improved separator. The separator 6 consists particularly in the operating surface 7 and the operating surface 8. These surfaces are spaced a maximum distance

apart, but not in the same plane, as illustrated. In the drawings the separator is shown as a double curved plate of somewhat S-shape in cross-section. This form is the preferred one, but it is evident that any form of structure that will provide two operating surfaces not in the same plane will operate in the same manner.

In operation the separator is so supported in the spinning machine as to bring the line of the surface 8 practically on a line with one edge of the ring. This will bring the line of the surface 7 practically on the line of the edge of the next located ring on the rail, as is clearly shown in Fig. 1 of the drawings. It must therefore be evident that by the structure and location of the separator all the finger room between the bobbins is available for the use of the operative in piecing up.

Having thus described my invention, I claim as new and desire to secure by Letters Patent;—

1. In a spinning frame, in combination with the bobbins thereof, a separator projecting in the space between each pair of opposite bobbins, each separator having two operating surfaces which are spaced in both a horizontal and vertical planes, said operating surfaces of the separators being so arranged that the high operating surface of one separator and the lower operating surface of the next adjacent separator engage the balloons of one of the bobbins.

2. In a spinning frame, in combination with the bobbins thereof, a separator mounted to project in the space between each pair of bobbins, said separator having its outer end portion of S-shape in cross-section extending in a plane substantially transverse to the longitudinal axes of the bobbins so as to provide an upper and a lower convex operating surface which are spaced both vertically and horizontally from each other and which are adapted to engage the balloons of opposite bobbins.

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

ALFRED HITCHON.

Witnesses:

JOHN WILLIAM THOMAS,
ERNOLD SIMPSON MOSELEY.