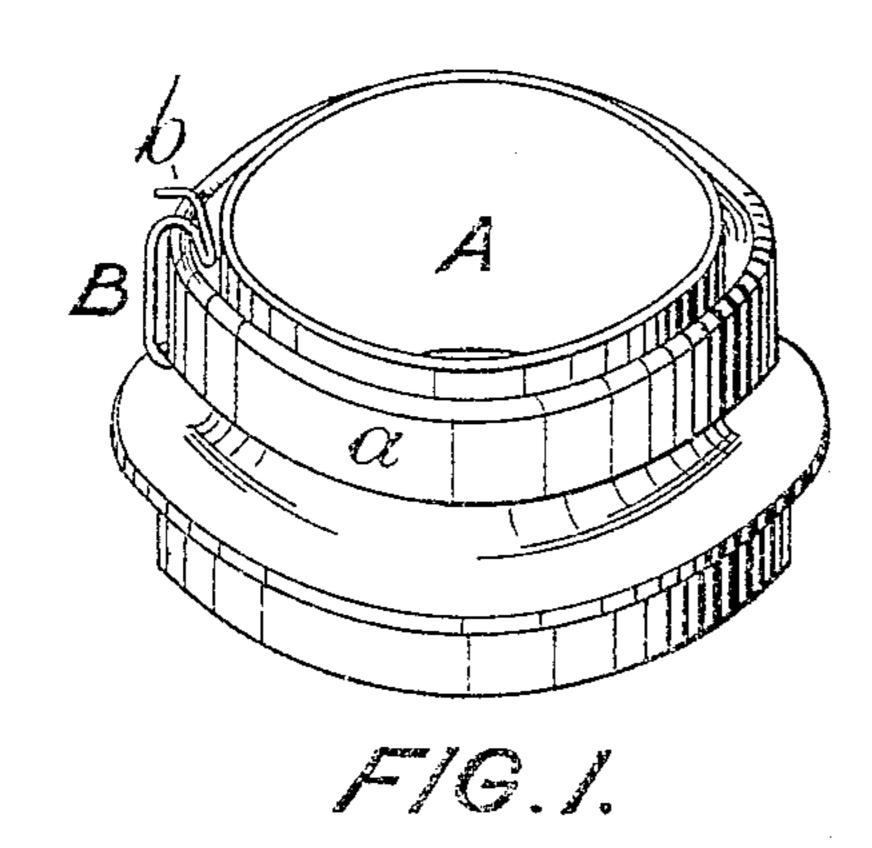
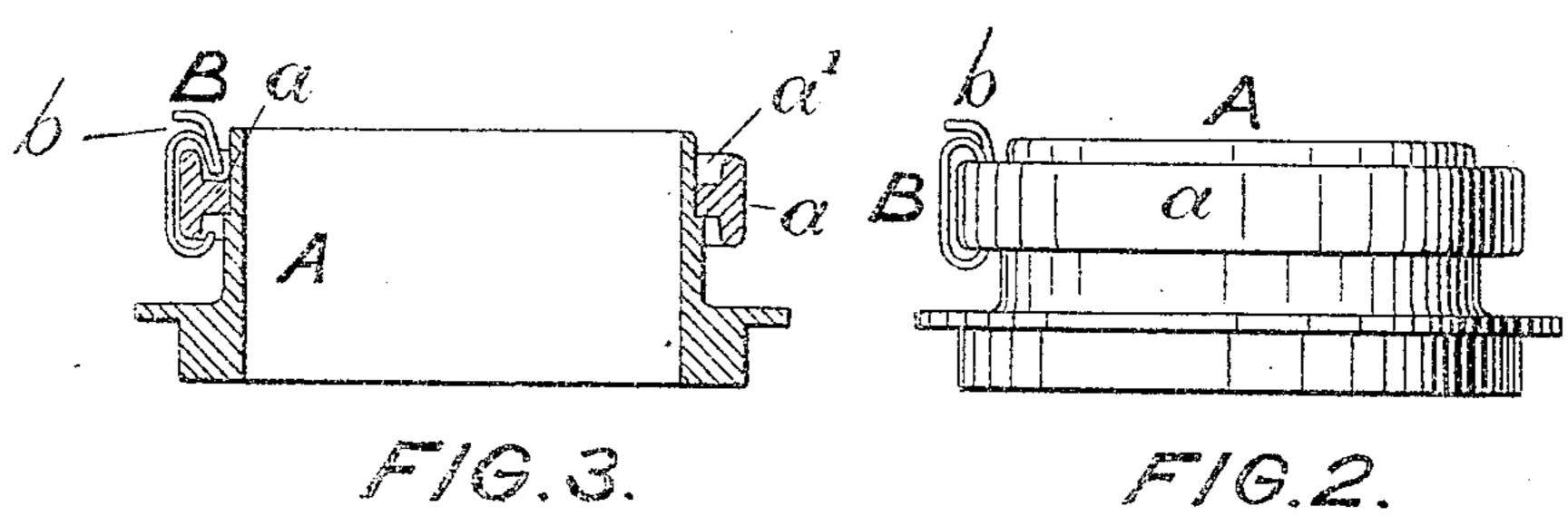
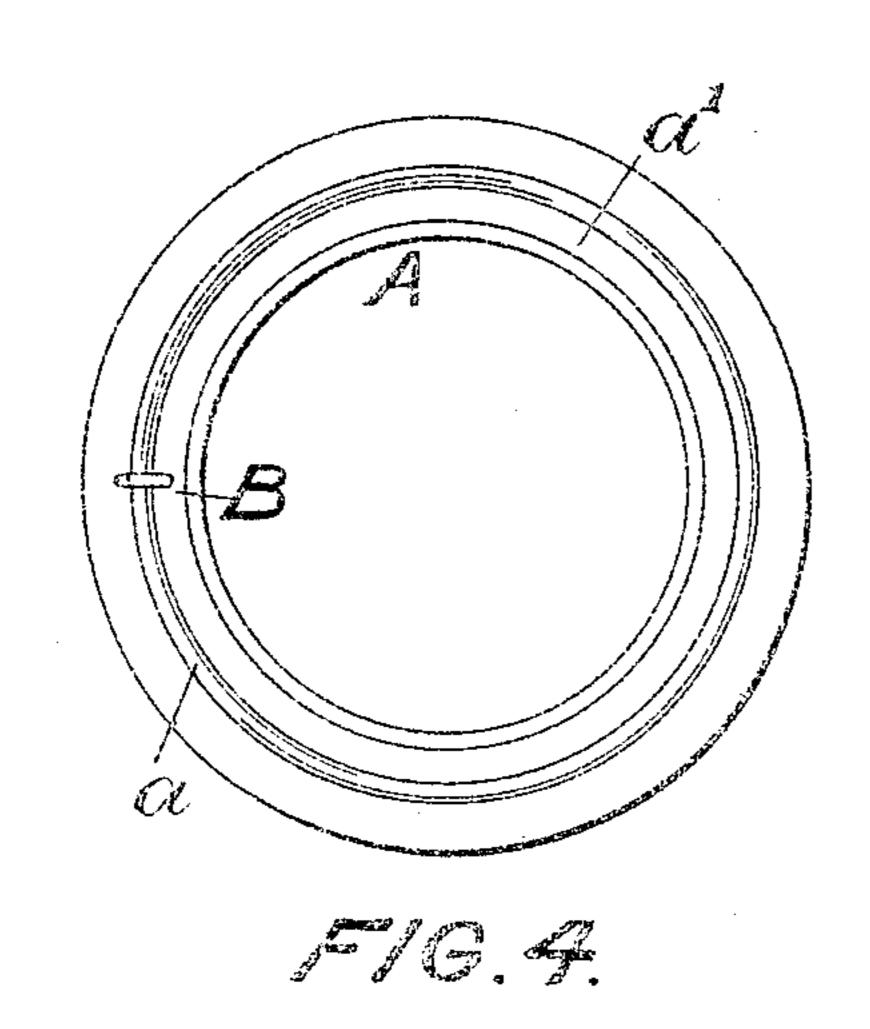
F. POTTS & J. W. HURST.

SPINNING RING.

APPLICATION FILED MAR. 7, 1904.







WITNESSES.

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INVENTORS.

Continue Attended

UNITED STATES PATENT OFFICE.

FRANK POTTS AND JAMES W. HURST, OF STOCKPORT, ENGLAND.

SPINNING-RING.

SPECIFICATION forming part of Letters Patent No. 778,799, dated December 27, 1904. Application filed March 7, 1904. Serial No. 196,950.

To all whom it may concern:

Be it known that we. Frank Potts and James William Hurst, British subjects, and both residents of Stockport, in the county of Ches-5 ter, England, have invented certain new and useful Improvements in Ring Spinning and Doubling Frames, of which the following is a specification.

This invention relates to rings and travelo ers for spinning and doubling yarns and is designed to prevent the formation of black or dirty yarn consequent upon grease and oil from the ring reaching the cop as it is being spun.

As the ring and traveler are at present con-15 structed the traveler is arranged to revolve in the interior of the ring upon or against the inner surface of the ring which is nearest to or adjacent to the cop while it is being formed, and through the necessary lubricant 20 being applied to this surface the yarn is blackened or dirtied by contact with the same.

The invention consists, essentially, in constructing the ring so that the traveler may revolve outside the ring or out of contact with 25 the interior surface thereof, thereby obviating the necessity of applying lubricant to the same, and thus prevent the yarn having contact with the lubricant.

The invention will be fully described with 30 reference to the accompanying drawings, in which several forms are shown as examples.

Figure 1 is a perspective view of one form of the invention; Fig. 2, a side elevation of same; Fig. 3, a sectional elevation; Fig. 4, a 35 plan.

The ring is constructed with a ring A, which embraces the cop or bobbin, and a second ring a, upon which the traveler B fits and revolves outside the ring A. The second ring a may 40 be lubricated to any desired extent without |

the lubricant getting onto the ring A, the top of which forms a flange to prevent the lubri-

cant getting near the yarn.

In the arrangement shown in Figs. 1 to 4 the ring A is made of a suitable form to embrace 45 the cop or bobbin and to fit into the ring-rail. A second ring a is formed in one with the ring A or fitted over the exterior of it, forming grooves at the top and bottom outside the ring A. The groove a' will receive the lubricant, 50 and the upper edge of the ring A forms a flange to prevent any lubricant coming in contact with the yarn.

The traveler B is fitted onto the ring a and travels outside the ring A. The traveler B 55 is formed with a loop b to engage the yarn or of any other suitable shape. The traveler B revolves on the outside of the ring by the tension of the yarn as it is wound upon the bobbin by the aid of the spindle, as in the ordi- 60 nary way of spinning, doubling, and twisting yarns.

What we claim as our invention, and desire to protect by Letters Patent, is—

In a ring for spinning doubling and twist- 65 ing yarn the combination with the bobbin-ring A within which the bobbin rotates, of an auxiliary ring a fitted firmly on its outer periphery forming grooves, top and bottom, and a traveler B fitted to rotate thereon substantially 70 as described.

In witness whereof we have hereunto signed our names in the presence of two subscribing witnesses.

> FRANK POTTS. J. W. HURST.

Witnesses:

J. Owden O'Brien,

B. TATHAM WOODHEAD.