

Aug. 26, 1924.

1,506,273

H. E. SMITH

SLIVER CAN

Filed May 4, 1923

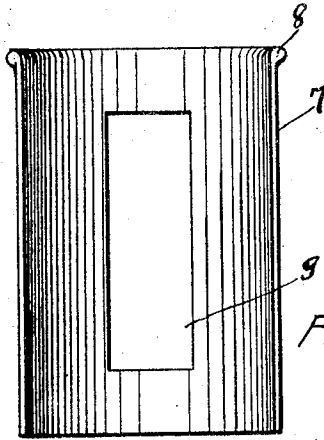


Fig. 3.

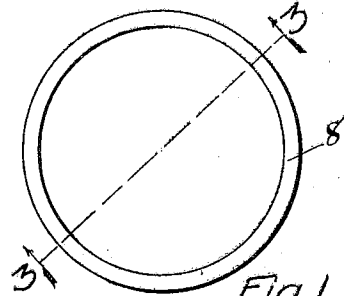


Fig. 1.

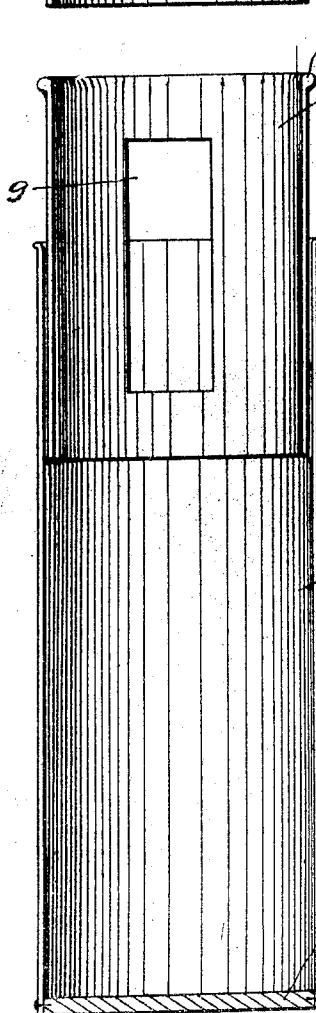


Fig. 6.

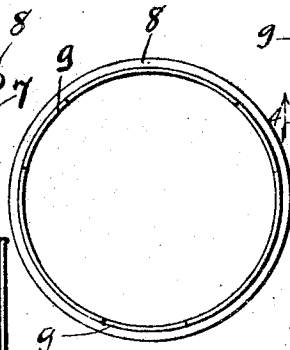


Fig. 4.

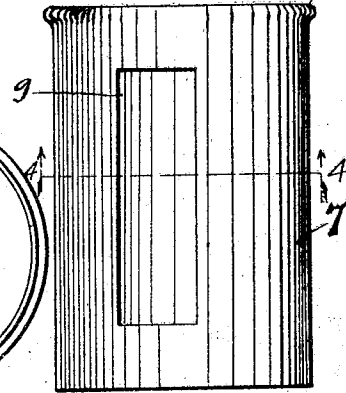


Fig. 2.

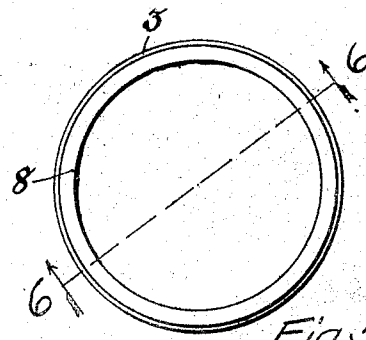


Fig. 5.

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per
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UNITED STATES PATENT OFFICE.

HERBERT E. SMITH, OF PUTNAM, CONNECTICUT.

SLIVER CAN.

Application filed May 4, 1923. Serial No. 336,569.

To all whom it may concern:

Be it known that I, HERBERT E. SMITH, a citizen of the United States of America, residing at Putnam, in the county of Windham and State of Connecticut, have invented a certain new and useful Improvement in Sliver Cans, of which the following is a full, clear, and exact description.

This invention relates to cans for receiving sliver of carding and drawing machines in cotton mills, and the like.

According to common practice, the sliver of carding and drawing machines is delivered into cans, which are held in an upright position and are revolved, by mechanism, under the coiling apparatus. Such coiling apparatus consists of discs, each being of substantially the same diameter as the can located there-below, said discs having an aperture near the edge through which the sliver is discharged into the can. The discs are located about three inches above the tops of the cans and are revolved in circular frames at a different speed from the speed of revolution of the cans. The sliver is coiled as it is discharged into the cans and continues to build up therein until the cans are filled, thereafter the sliver piling up until the space between the tops of the cans and coilers is filled, the sliver then exerting an upward pressure against the coilers which raises the latter, thereby completing an electrical circuit which results in the stopping of the can and coiler rotating mechanism.

The piling of the sliver between the tops of the cans and the coilers causes the sliver to be compressed, and when the cans are moved from the machine the sliver expands greatly, so that it often falls to the floor and becomes soiled and unfit for further treatment in the next process. Sometimes, to avoid the overflow of the sliver from the can due to the expansion of the sliver, the operator on taking the can from the machine carefully removes the surplus sliver which projects above the top of the can, and deposits it in another can, which requires considerable time.

The object of this invention is to eliminate the waste of sliver and the consequent spoiling thereof by reason of the overflowing of the sliver from the cans as they are removed from the machine, and with this object in view an important feature of the invention consists in an extensible member

which is applied to the sliver can, and is free to move telescopically therein. Such extension is normally withdrawn within the upper portion of the can, but is adapted to extend upwardly from the can as the sliver expands when the can is removed from the machine; the rising of the extension with the expanding sliver serving to retain the sliver and prevent its falling from the can, or from becoming soiled or damaged by reason of its extension beyond the protecting wall of the can.

The invention will be best understood from the following description, when considered in connection with the accompanying drawings, in which:

Fig. 1 is a plan view of the invention;

Fig. 2 shows the automatic extension in side elevation;

Fig. 3 is a longitudinal section, on the line 3—3 Fig. 1;

Fig. 4 is a section on the line 4—4, Fig. 2, viewed in the direction of the arrows;

Fig. 5 is a plan view of a sliver can with the extension thereon, and,

Fig. 6 is a section on the line 6—6, Fig. 5.

The numeral 3 indicates a sliver can, the body portion of which is ordinarily made of compressed fiber, although it might be made of any other suitable material, said can having a bottom 5. Telescopically received within the upper open end of the can is a cylindrical section 7 which is provided at its upper edge with a rolled portion of bead 8, and also is provided at suitable intervals around its circumference with elongated hand holes 9, herein shown as three in number. The extension 7 is slightly smaller in outside diameter than the inside diameter of the can 3 whereby it is free to slide longitudinally in the latter.

When the parts are assembled for use the extension 7 is withdrawn within the can 3 and is sustained upon the upper edge of the latter by the bead 8. As the sliver piles up in the can while being discharged by the coiler it eventually rises until it fills the space between the top of the can and the coiler, and the sliver is then compressed and compacted, until the pressure is sufficient to effect, by a movement upward of the coiler, the automatic stopping of the machine. The can is then removed from the machine, thus releasing the pressure on the sliver, which latter now expands and in so doing rises, carrying with it the tele-

scopie section 7 which follows the sliver in its upper movement and prevents it from overflowing the can and falling out upon the floor, or from being exposed to the danger of soiling and thus spoiling it for use.

The hand holes 9 permit the operator to reach through the extension 7 and grasp the can 3 whereby the latter may be easily handled.

The right is reserved to make such changes and variations in the configuration, or structural details of the parts herein shown as are contemplated by the invention, as expressed in the following claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. A sliver can having a free and unobstructed inner surface throughout, in combination with an extensible member telescopically fitting said can and always free to automatically rise as the sliver expands, and to prevent the sliver from overflowing the can.

2. The combination with a sliver can, of a cylindrical, telescopic member freely mov-

able within the open end of the can, and adapted to rise as the sliver expands and prevent the overflowing of said sliver from the can, said extension having at its upper end means to limit its movement within the can.

3. The combination with a sliver can, of a telescopic extension freely movable within said can and constructed and arranged to automatically rise within the can, so as to increase the capacity of the can, under the expansive force of the sliver when the latter is released, said extension being provided with an outwardly rolled upper edge which forms a stop to limit its movement into the can.

4. The combination of a silver can, of a telescopic extension freely fitting the open end of the can and adapted to rise automatically as the sliver expands, said extension being provided with a hand hole to enable the operator to reach through the extension and grasp the can.

In testimony whereof I have hereunto set my hand this 25th day of April A. D. 1923.

HERBERT E. SMITH.