

Nov. 13, 1945.

J. T. TICE

2,388,774

LAP PIN

Filed Nov. 16, 1942

Fig. 1.

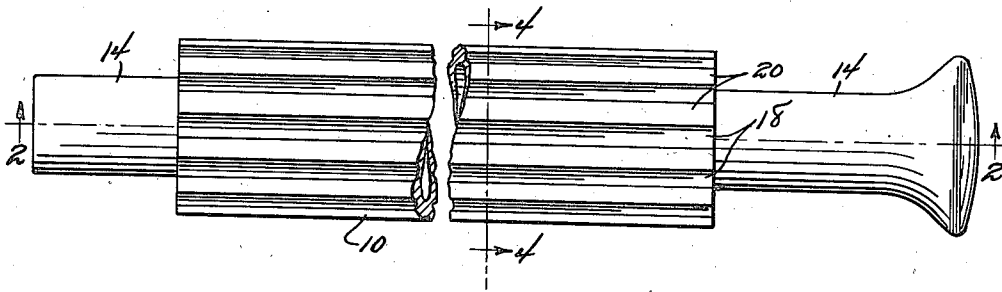


Fig. 2.

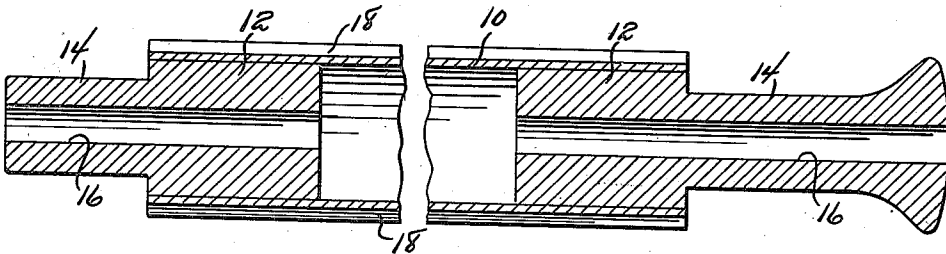


Fig. 3.

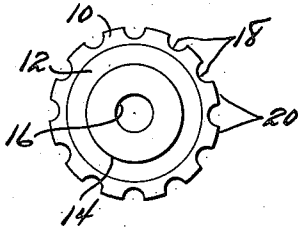
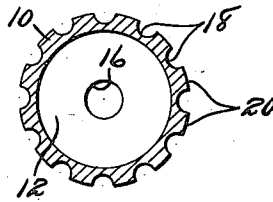


Fig. 4.



John T. Tice
INVENTOR.

BY
Vieta J. Evans & Co.

ATTORNEYS

UNITED STATES PATENT OFFICE

2,388,774

LAP PIN

John T. Tice, Atlanta, Ga.; Hedwig Tice administratrix of said John T. Tice, deceased

Application November 16, 1942, Serial No. 465,739

1 Claim. (Cl. 19—162)

My invention relates to pickers of the type employed in textile mills in running cotton, wool and other fibers that are made into laps prior to the carding operation, and has among its objects and advantages the provision of an improved lap pin.

In the accompanying drawing:

Figure 1 is a side view of a lap pin illustrating the invention, with a portion broken away for the sake of compactness.

Figure 2 is a sectional view along the line 2—2 of Figure 1.

Figure 3 is an end view, and

Figure 4 is a sectional view along the line 4—4 of Figure 1.

In the embodiment of the invention selected for illustration, Figure 2 illustrates a tubular steel shell 10 of uniform diameter throughout its length. Bodies 12 are shrunk fit into the ends of the shell. Coaxial journals 14 are fixed to the bodies 12, and coaxial bores 16 are provided in the journals for the reception of the lap stick (not shown) which follows into the lap upon completion thereof and as the lap pin 10 is removed therefrom.

The outer face of the shell 10 is grooved longitudinally, as at 18, these grooves extending throughout the length of the shell and equally spaced circumferentially thereabout, so that the working face of the shell is made up of a plurality of narrow faces 20 spaced one from the other in parallel relationship and extending the full length of the shell. The faces 20 are of equal width, and their total area equals fifty per cent of the original circumferential area of the shell.

A lap pin of the foregoing description may be removed from the finished lap with much less frictional binding and without damage to the ends of the finished lap, thereby eliminating much of

the waste at the cards which is caused by such damaged ends. A further advantage resides in the fact that the lap pin holds the cotton from the commencement of the winding operation to its completion without slippage, which produces more uniformity in the layers of the cotton as it is wound into a lap. This also results in a decided improvement in the weight of the lap yardage, and results in more uniformity in the carding and spinning operations.

The lap may be made much more compact to enable the mills to increase the yardage of the lap and still hold the lap within present diameters, with consequent reduction in the cost of operation. The lap pin need not have a taper to release from the completed lap, so that the laps are of uniform diameter from end to end, which is important in making correctly weighted laps. The uniform diameter of the lap pin produces more evenly formed lap ends. The finished lap is such as to greatly increase the production of the picker. Due to the elimination of friction, the life of the lap pin is much longer than that of plain lap pins.

Without further elaboration, the foregoing will so fully explain my invention, that others may, by applying current knowledge, readily adapt the same for use under various conditions of service.

I claim:

In a lap pin, a tubular body having grooves in its exterior circumferential surface extending axially from end to end of the body, said grooves being uniformly spaced circumferentially of the body so as to provide longitudinal faces having a uniform width throughout the length of the body and having a total area equal to fifty percent of the circumferential area of the body.

JOHN T. TICE.