

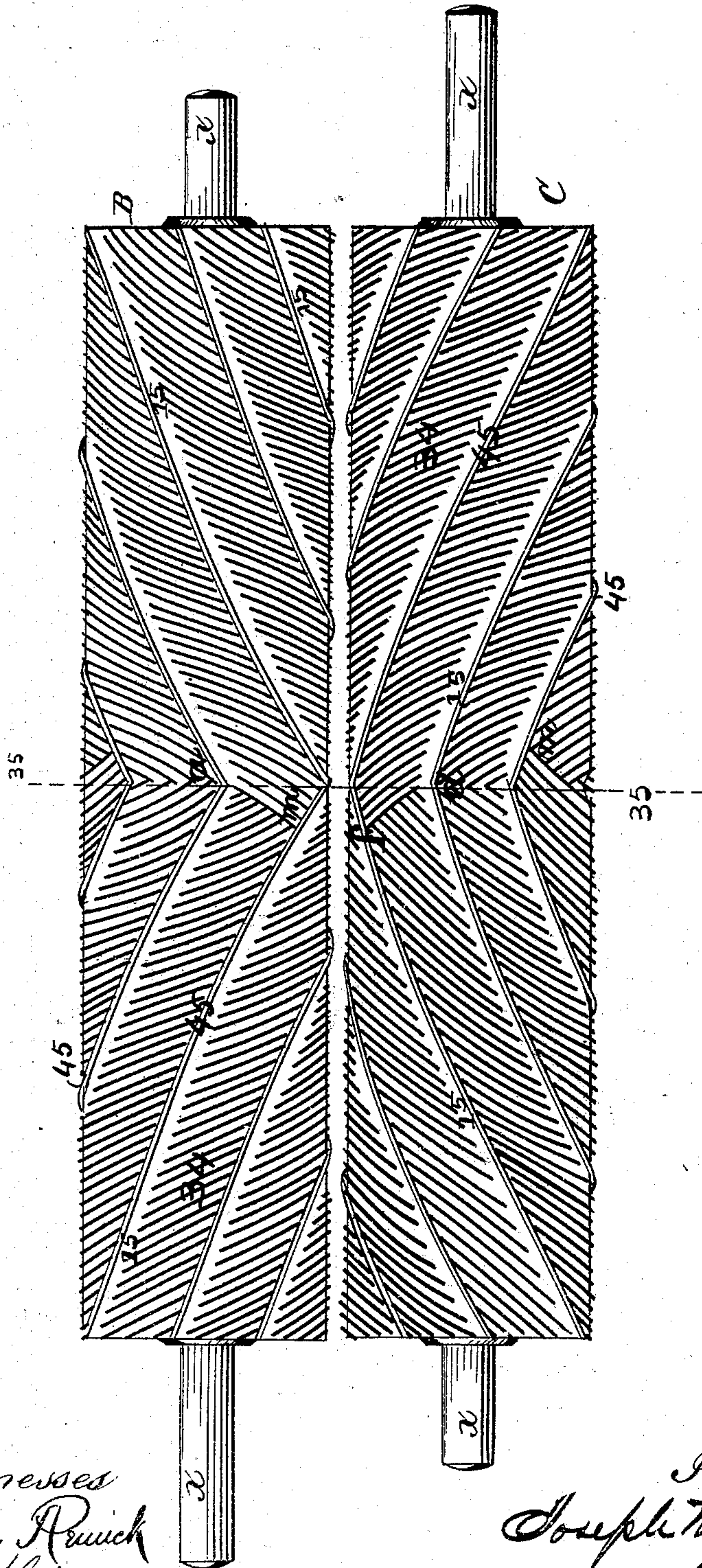
(No Model.)

J. W. VAUGHN.

ROLLER FOR LEATHER DRESSING.

No. 274,859.

Patented Mar. 27, 1883.



Witnesses
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ROLLER FOR LEATHER-DRESSING.

SPECIFICATION forming part of Letters Patent No. 274,859, dated March 27, 1883.

Application filed January 15, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH W. VAUGHN, of Peabody, in the county of Essex, State of Massachusetts, have invented a certain new and useful Improvement in Rollers, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawing, forming a part of this specification, in which the figure is a top or plan view, showing a pair of my improved rollers diametrically enlarged.

My invention relates to that class of fluted stretching and drawing rollers which are employed in certain kinds of leather-machines, cotton and paper-machinery, &c.; and it consists in a roller provided around its periphery with a series of threads or flanges constructed and arranged in a novel manner, as hereinafter more fully set forth and claimed, by which a more effective device of this character is produced than is now in ordinary use.

The nature and operation of the invention will be readily understood by all conversant with such matters from the following explanation, its extreme simplicity rendering an elaborate description unnecessary.

In the drawing, C represents the body of the roller, and *x* its shaft or journals, to which any proper driving-gear may be attached. A series of long threads or flanges, 45, start from its center, on the line 35, and pass in a spiral direction toward each end, as shown, and arranged between each pair of these long threads are a series of short threads or flanges, 34. The short threads start or project from the rear portion of the long threads, and are of the same height, but do not extend entirely across the spaces between the long threads, thus leaving a narrow channel, 15, in front of each long thread. The short threads meet alternately on the central line, 35. For instance, at *d* the short threads meet on the line 35; at *m* at the right of said line; at *a* on said line; at *f* to the left of said line, and so on entirely around the roller. The long threads are preferably so constructed as to pass once around the roller between the line 35 and the end of the roller;

but in the drawing, the diameter of the roller being out of proportion to its length, in order to show the short threads to better advantage, the long threads are not so represented.

In certain kinds of work for which the rollers are adapted, more especially when used in "putting-out" machines for hides and skins in the manufacture of leather, they are required to stretch the skin lengthwise, and also crosswise or laterally, taking the place of the "slicker," which is employed when the work is done by hand. To accomplish this perfectly is the object of fluting the roller in the manner described, or of providing it with a series of long threads or flanges, 45, which stretch the skin lengthwise, and a series of short threads, 34, which stretch it crosswise or laterally, the short threads being arranged on the periphery of the roller, more nearly at right angles to its axis than the long ones.

In machines for putting out a hide or skin it is also necessary to use a pair of the rollers arranged as shown in the drawing, the roller B being a counterpart of the roller C, but reversed or turned end for end, and when so used it has been found that they will not perform their work satisfactorily unless the short threads are arranged as described, or so as to meet on and alternately at the right and left of the line 35, for the reason that when all of the short threads meet on said line there will be a space across the center of the hide or skin which will not be properly stretched or put out; and the same will apply in some degree to other kinds of work for which the rollers are adapted, whether used singly or in pairs.

The object of the channel 15, formed by terminating the short threads a little in front of the long threads, is to provide a means of carrying off the tanning-liquors and water when the rollers are used in putting-out machines, and for a similar purpose when used in other machinery where the work is moist or wet.

The edges of the flanges may be angular, sharp, or rounded, in accordance with the work they are required to perform, the rollers being adapted for shaving hides and skins, shearing cloth, and similar purposes when the threads are provided with angular or sharp

edges, and for smoothing or finishing leather and analogous purposes when provided with rounded or smooth edges.

I do not confine myself to the precise construction shown and described, as for some purposes the channel 15 may be entirely dispensed with; and good work may also be accomplished by a roller or pair of rollers in which the short lines all meet on the central line, 35, and not alternately at its sides, as described. Neither do I confine myself to any defined pitch or angle for arranging the threads on the periphery of the rollers, or to any special formation of the edges of the threads, these being varied according to circumstances.

Having thus explained my invention, what I claim is—

1. The roller C, provided with a series of long threads or flanges, 45, and short threads or flanges 34, substantially as specified. 20

2. The roller C, having a series of long threads or flanges, 45, and a series of short threads or flanges, 34, the short threads meeting alternately on and at the side of the line 35, substantially as and for the purpose set forth. 25

3. In a roller having a series of long and short threads or flanges, substantially as specified, the groove or channel 15, substantially as and for the purpose described.

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Witnesses:

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