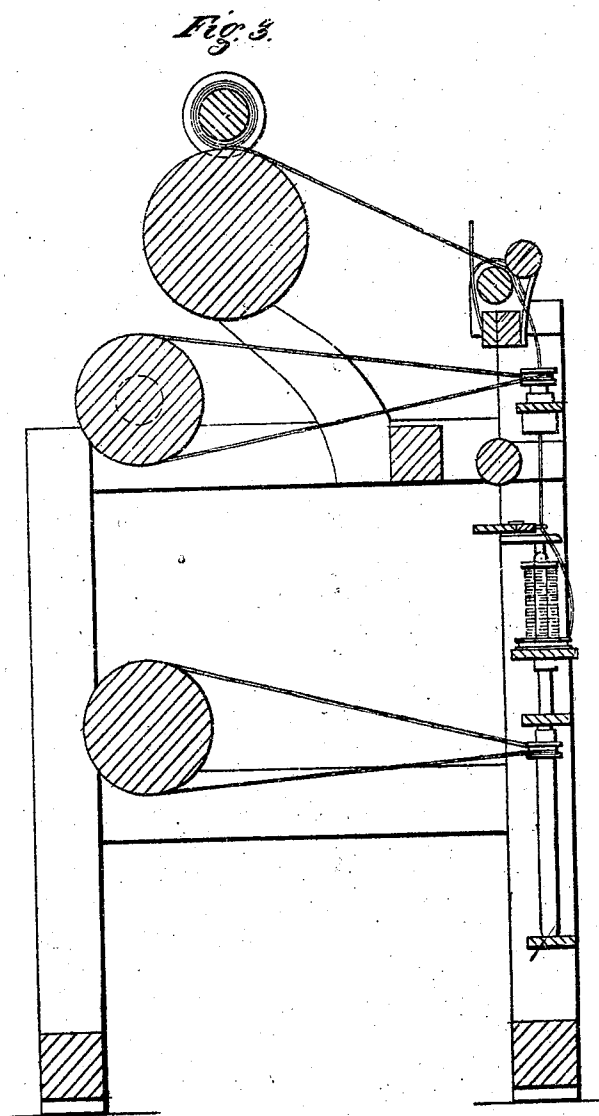
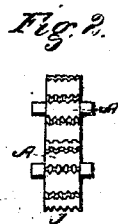
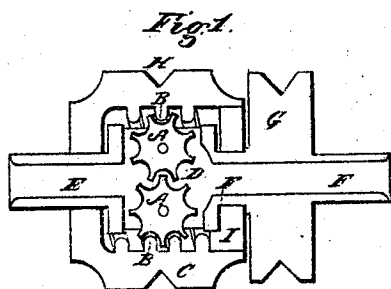


*W. Wright.*  
*Spinning Twisting Head.*  
*Nº 5,964.* *Patented Dec 12, 1848.*



# UNITED STATES PATENT OFFICE.

WENDELL WRIGHT, OF CINCINNATI, OHIO.

## DRAWING-HEAD FOR SPINNERS.

Specification of Letters Patent No. 5,964, dated December 12, 1848.

*To all whom it may concern:*

Be it known that I, WENDELL WRIGHT, of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Drawing and Twisting Fiber Simultaneously and Continuously or Separately, which I denominate a "Combination Spinner or Universal Drawer," and that the following is a full, clear, and exact description of the principle or character which distinguishes them from all other things before known and of the usual manner of making, modifying, and using the same, reference being had to the accompanying drawings, which form a part of this description, in which—

Figure 1 is a sectional view of the spinner. Fig. 2 is a view of the rollers. Fig. 3 is a side view of the apparatus attached to a drawing frame.

It is well known to spinners that it is essential to the even drawing of most fibrous materials into yarn or thread, that it be kept more or less twisted for the action of twisting operates along the thread inversely to the thickness, and thus by strengthening the thinner portions, concentrates the draw on thicker ones and thus tends to produce an even thread.

It is one object of this invention, to provide such a method of applying the twist and draw, as that the thread shall be transmitted and spun off in a continued and uniform motion. These effects are accomplished by the action of a pair of geared rollers, which at the same time that they revolve in the direction of, and thus draw the thread have also a revolving motion at right angles to the former one and thus apply the twist simultaneously with and in any requisite proportion to the draw.

I am aware that attempts have heretofore been made to cause the draw rollers to twist the fiber by making them revolve but these have all failed from want of certainty of action, and simplicity of construction which mine possesses in an eminent degree.

This machine is constructed as follows: Fig. 1, shows a sectional view in which is displayed two small geared or fluted rollers A, gearing very loosely into each other, and also gearing into a spiral thread or screw

threads B, on the inside of a cylindrical box C. The rollers A have their bearings in a case or sheave D, to which are attached two tubes E, F, that form journals on which the whole revolves; these tubes form the ducts through which the thread passes.

The sheave or case D, with the pair of rollers A, tubes E F and pulley G I call the spindle, and it performs most of the requisites of a common spindle together with other functions such as drawing &c. The pulleys G and H are the receivers of motion from the driving power which is imparted to the box C and tubes E F, by means of bands in the ordinary way but causing them to move with unequal velocities which regulates the amount of draft. The box C, revolves freely around the spindle on the tube E, as a journal, the other end being supported by the tube F, by the introduction of a disk or head I into the box C, by means of which it may be disengaged from the box C, by a slight movement of the hand, to come at the rollers, or the rollers A may be notched on the periphery as shown at j, Diagram 2, and one or more additional pairs may be placed in the same spindle for which one or more boxes additional may be employed which may be stationary or made to revolve independently of each other or may fit together as a continuous chamber or cylinder, in which case screws with the threads of different pitches may be employed to cause the rollers to revolve with different velocities or the rollers may be placed in one or both ends of said spindle one or both of said rollers may gear into the thread or threads B, on the inside of said cylindrical box C, the fluted rollers and cylindrical box may be made of glass or any suitable metal. Also one two or more spinners may be employed applied to one thread, or one spinner with any number of boxes and pairs of rollers in a continuous line may be used and the spindle or spindles may be made to revolve in a vertical horizontal or inclined position.

This apparatus may be made to combine the operations of a condenser and spinner by attaching over a common spindle as shown in the drawing or it may be so connected with a carding machine as to take the sliver

directly from the card to the spinner and at one operation convert it into thread or yarn.

What I claim as my invention and desire to secure by Letters Patent, is—

- 5 The employment of the spiral threaded box C in combination with the rollers A, A for drawing the roving in the manner set

forth, the motion being more perfect and regular than can be effected in any other way.

WENDELL WRIGHT.

Witnesses:

DWIGHT B. HINCKLEY,  
OTHNIEL GAGER.