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R. E. NAUMBURG

SPINNING FRAME

Filed July 5, 1923

Fig. 1

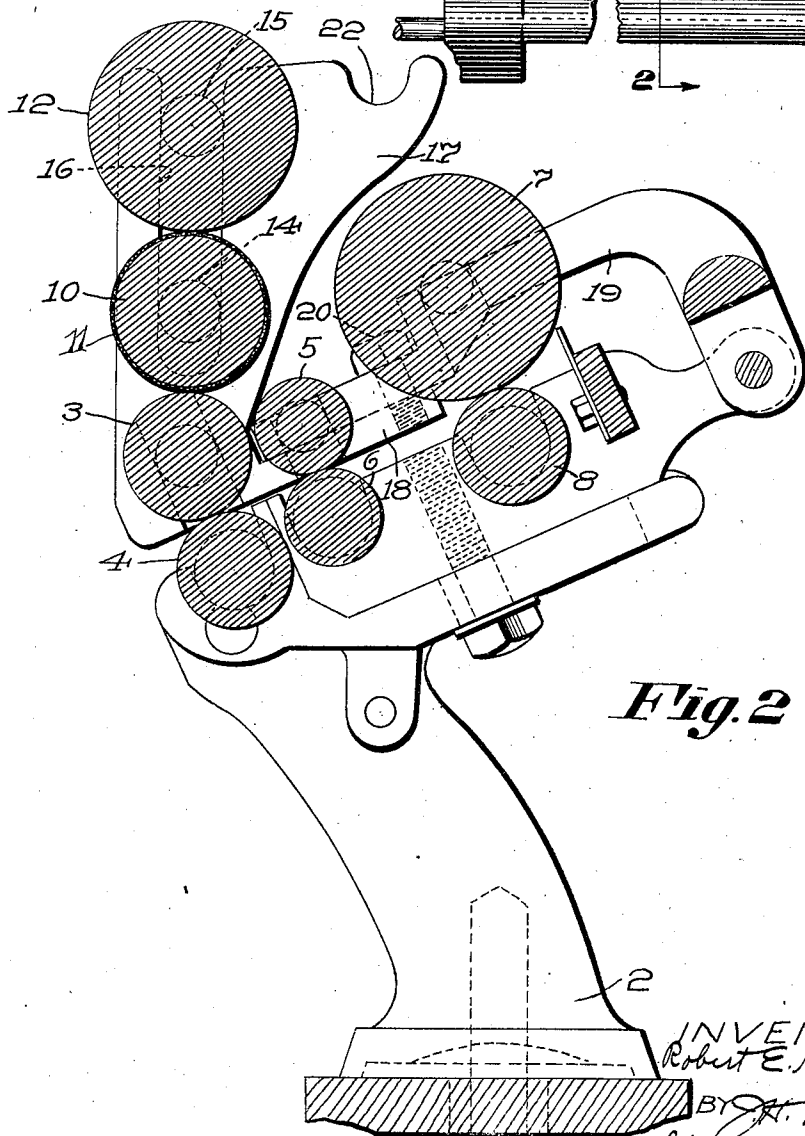
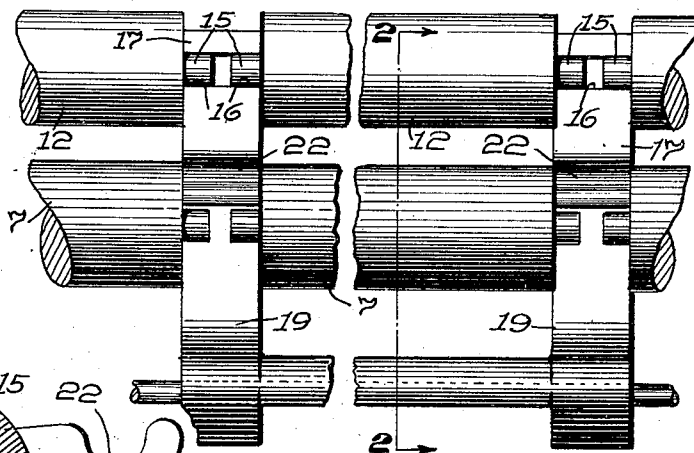


Fig. 2

INVENTOR
Robert E. Naumburg
BY *H. McCurdy*
his ATTORNEY

UNITED STATES PATENT OFFICE.

ROBERT E. NAUMBURG, OF WINCHESTER, MASSACHUSETTS, ASSIGNOR TO SACO-
LOWELL SHOPS, OF BOSTON, MASSACHUSETTS, A CORPORATION OF MASSA-
CHUSETTS.

SPINNING FRAME.

Application filed July 5, 1923. Serial No. 649,480.

To all whom it may concern:

Be it known that I, ROBERT E. NAUMBURG, a citizen of the United States, residing at Winchester, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Spinning Frames, of which the following is a specification.

This invention relates to the drawing mechanisms of spinning frames, roving frames, and like machines, and is especially concerned with mechanisms for weighting the drawing rolls.

It has usually been customary heretofore to weight the upper rolls of spinning frames through the use of saddles, the pressure being transmitted to the saddles from springs or weights usually acting through levers. With a view to simplifying such mechanisms and avoiding the variations in pressure which necessarily attend their use, it has been proposed heretofore to make the upper rolls relatively heavy so that they will be self-weighting. This arrangement is usually satisfactory for the middle and back rolls. Additional weight, however, is usually required on the front roll and such weight is applied by means of a heavy cloth covered roll which bears directly on the front roll and performs the double function of applying pressure to it and "clearing" it or removing lint from it. This combined pressure and clearing roll must be cleaned at intervals, and the fact that this roll is very heavy is a great handicap in performing the cleaning operation. It is the chief object of the present invention, therefore, to devise a weighting mechanism which, while having substantially the simplicity and other advantages of the construction just described, will also avoid the objection above mentioned.

The nature of the invention will be readily understood from the following description when read in connection with the accompanying drawings, and the novel features will be particularly pointed out in the appended claims.

In the accompanying drawings,
Figure 1 is a plan view of a portion of a spinning frame constructed in accordance with this invention; and

Fig. 2 is a cross sectional view on the line 2-2, Fig. 1.

In the construction shown the stand or

frame 2, the front upper and lower drawing rolls 3 and 4, the intermediate rolls 5 and 6, and the rear rolls 7 and 8, are all constructed, arranged, and operated in the usual manner, no change from the standard practice being made except in the brackets that hold the upper roll 3 in place. Resting on the upper front roll 3 is a clearer roll 10 on which, in turn, rests a heavy weighting or pressure roll 12. These rolls have reduced ends or stub shafts 14 and 15, respectively, projecting therefrom, which are guided in vertical slots 16-16, formed in brackets 17-17 at opposite ends of the rolls. Each bracket 17 has a shank 18 which is adjustably secured by means of a bolt 20 to one of the top roll brackets 19.

The clearer roll 10 may consist either of a wooden or metal roll covered with felt or cloth having suitable characteristics, and the mass of the roll 12 together with that of the roll 10, is sufficient to apply the desired degree of pressure to the upper roll 3. Usually it is feasible to divide the weight about equally between the rolls 10 and 12, but under some circumstances it is preferable to make the clearer roll 10 relatively light and the weighting roll 12 comparatively heavy.

When the clearer roll 10 is to be cleaned, the weighting roll 12 is lifted out of the slots 16 and its shafts 15-15 are rested in notches 22-22, formed in the brackets 17-17. The clearer roll may then be removed and cleaned. If desired, the bracket 17 may be extended and additional notches formed in them to receive the clearer roll 10 when it is not in use.

It will now be understood that this invention provides a very simple means for weighting and clearing the upper of a pair of drawing rolls, and that it avoids the necessity of using a heavy clearing roll.

While I have herein shown and described the best embodiment of my invention that I have so far devised, I do not wish to be limited to the exact details of the construction shown.

Having thus described my invention, what I desire to claim as new is:

1. In a mechanism of the character described, the combination with upper and lower drawing rolls, of a clearer roll bearing on the upper drawing roll, a weighting roll bearing on said clearer roll, and means for

holding said weighting and clearer rolls in their operative positions.

2. In a mechanism of the character described, the combination with a drawing frame including upper and lower drawing rolls, of a clearer roll resting on the upper drawing roll, a weighting roll resting on

said clearer roll, and brackets at opposite ends of said rolls having slots therein to receive extensions projecting from the ends of said clearer and weighting rolls to hold them in their operative positions. 10

ROBERT E. NAUMBURG.