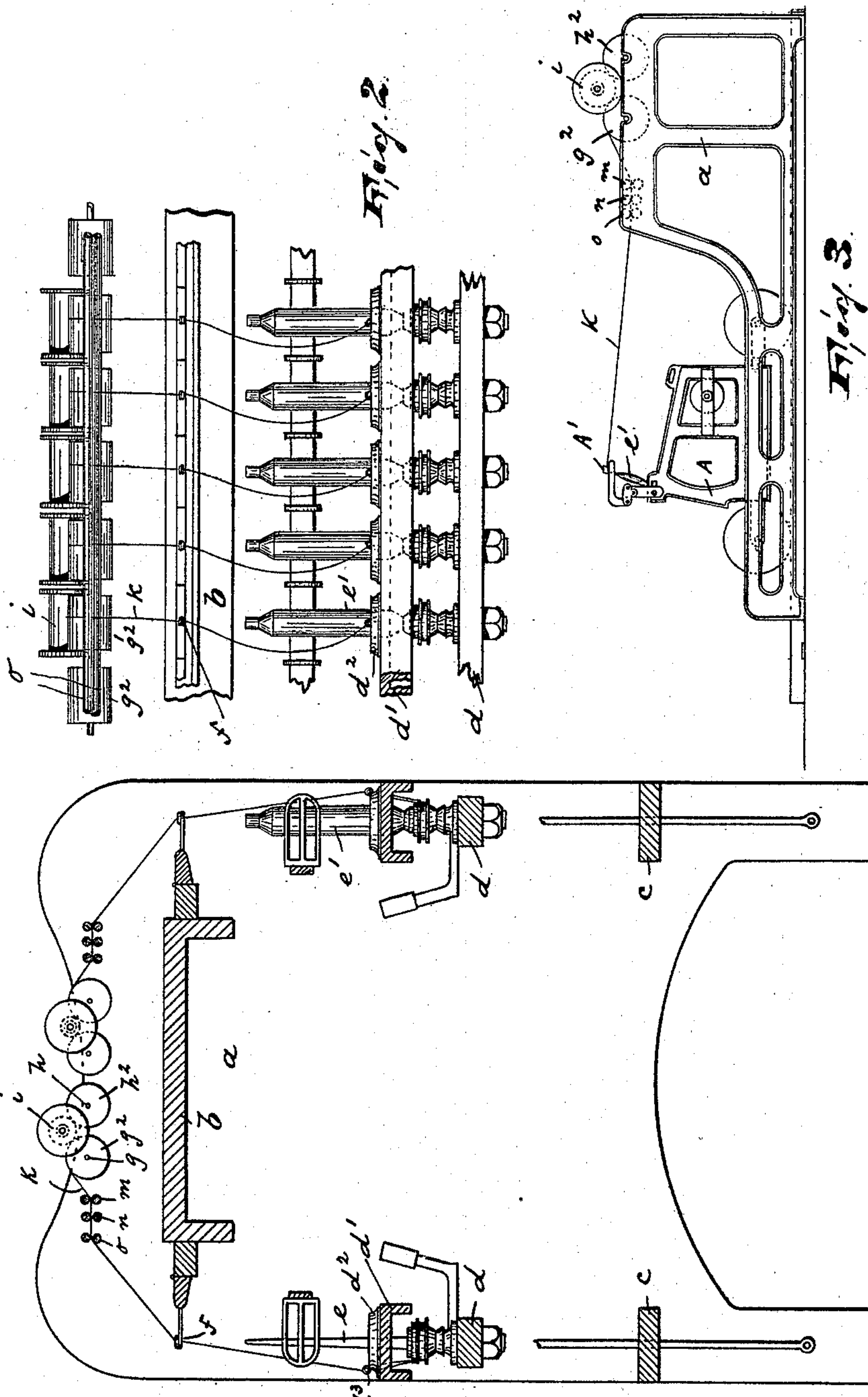


(No Model.)

W. D. ROSENCRANTZ.
SPINNING FRAME.

No. 573,925.

Patented Dec. 29, 1896.



WITNESSES:

Wm. Bell

S. J. Ramsey

INVENTOR :

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UNITED STATES PATENT OFFICE.

WILLIAM D. ROSENCRANTZ, OF HOHOKUS, NEW JERSEY.

SPINNING-FRAME.

SPECIFICATION forming part of Letters Patent No. 573,925, dated December 29, 1896.

Application filed July 1, 1896. Serial No. 597,699. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM D. ROSENCRANTZ, a citizen of the United States, residing in Hohokus, county of Bergen, and State of New Jersey, have invented certain new and useful Improvements in Spinning-Frames; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of my present invention is to provide a spinning-frame with sectional carrying-rollers which support and are in frictional contact with the condenser-spools having the roving wound thereon, to thus simplify the operation of spinning the roving, whereby the latter passes directly from the condenser-spools, between the drawing-rollers, onto the bobbins on the spindles.

The invention consists in the improved spinning-frame and in the combination and arrangement of the various parts thereof, substantially as will be hereinafter more fully described, and finally embodied in the clauses of the claim.

In the accompanying drawings, Figure 1 is a transverse sectional view of a spinning-frame provided with my improvement, only those parts being shown which are necessary to fully illustrate the nature of my said invention; Fig. 2, a detail front elevation of Fig. 1; Fig. 3, a side elevation of a spinning-mule provided with my improvements, the mule not being illustrated in detail.

In said drawings, *a* represents the frame, *b* and *c* the connecting bars or braces, and *d* the spindle-rails, on which the spindles *e*, carrying the bobbin *e'*, are mounted in the usual or well-known manner.

In the frame *a* and on each side of the center thereof are arranged the parallel shafts *g* and *h*, on which are mounted a series of drums or carrying-rollers *g*² and *h*², respectively, which rollers are in close proximity to each other. In front of the shaft *g* are also arranged (preferably three) sets of drawing-rollers *m n o*, operated in the usual manner

and driven at various speeds, as will be manifest.

Projecting from the brace *b* and secured thereto in any desired manner are the thread-guides *f*, arranged so as to be above and substantially in the center line of their respective spindles.

On the carrying-rollers *g*² and *h*² are placed the condenser-spools *i*, having the roving wound thereon, which roving passes over the roller *g*² into and between the sets of drawing-rollers *m*, *n*, and *o*, by which it is drawn to the required size. From the drawing-rollers the roving passes through the thread-guide *f* and traveler *d*³ (on ring *d*², which latter is vertically reciprocated, together with the bar *d'*) onto the bobbins.

In Fig. 3 is illustrated the mode of applying my present invention to a spinning-mule. The bobbin-carrying spindles are arranged on the reciprocating carriage *A*, and the thread *K* passes from the drawing-rollers through thread-guides *A'* onto the bobbins *e'*, as will be manifest.

In operation the sectional spools *i*, after being filled with roving, are taken directly from the condenser-frame of a carding-machine and are placed on the carrying-rollers *g*² and *h*², as in Figs. 1 and 2, and remain during the operation of unwinding the roving, that is to say, winding it upon the bobbins, in frictional contact with their respective carrying-rollers.

I do not intend to limit myself to the precise construction shown and described, as various alterations can be made without changing the scope of my invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a spinning-frame, the combination with its frame, of two parallel sectional carrying-rollers mounted in said frame, a series of condenser-spools carrying the roving loosely arranged on said sectional rollers and having its roving in frictional contact therewith, means for preventing lateral motion of the condenser-spools, a series of drawing-rollers also mounted in the frame, a spindle-rail traversing the frame, and a series of bobbin-carrying spindles mounted in said spin-

dle rail, all said parts, substantially as and for the purposes described.

2. In a spinning-frame, the combination with its frame, of two parallel shafts mounted
5 in said frame, a series of rollers on each of said shafts and in close proximity to each other, a series of condenser-spools carrying the roving loosely mounted on said rollers and having their roving in frictional contact there-
10 with, a head or flange on each end of each condenser-spool and engaging the space between adjoining rollers, to thus prevent lateral motion of the said condenser-spools, a series of sets of drawing-rollers, revolving at va-

rious speeds, also mounted in the frame, a se- 15
ries of bobbin-carrying spindles mounted in said rail, and a series of thread-guides arranged above said spindles, all said parts, substantially as and for the purposes de-
scribed. 20

In testimony that I claim the foregoing I have hereunto set my hand this 14th day of May, 1896.

WILLIAM D. ROSENCRANTZ.

Witnesses:

ALFRED GARTNER,
WM. D. BELL.