

A. M. Wade,
Spooling Thread.

No. 93,254.

Patented Aug. 3. 1869.

Fig. 1.

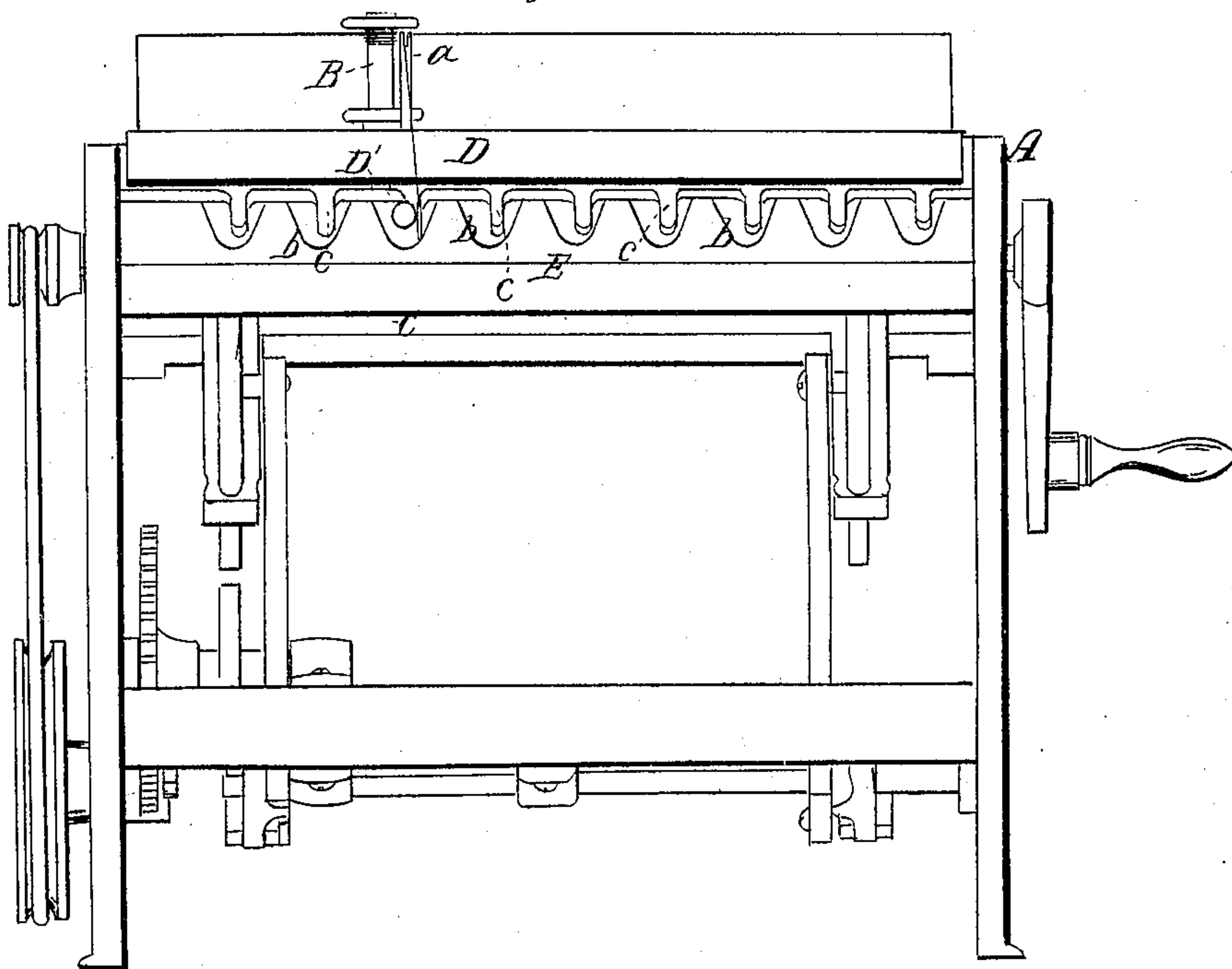
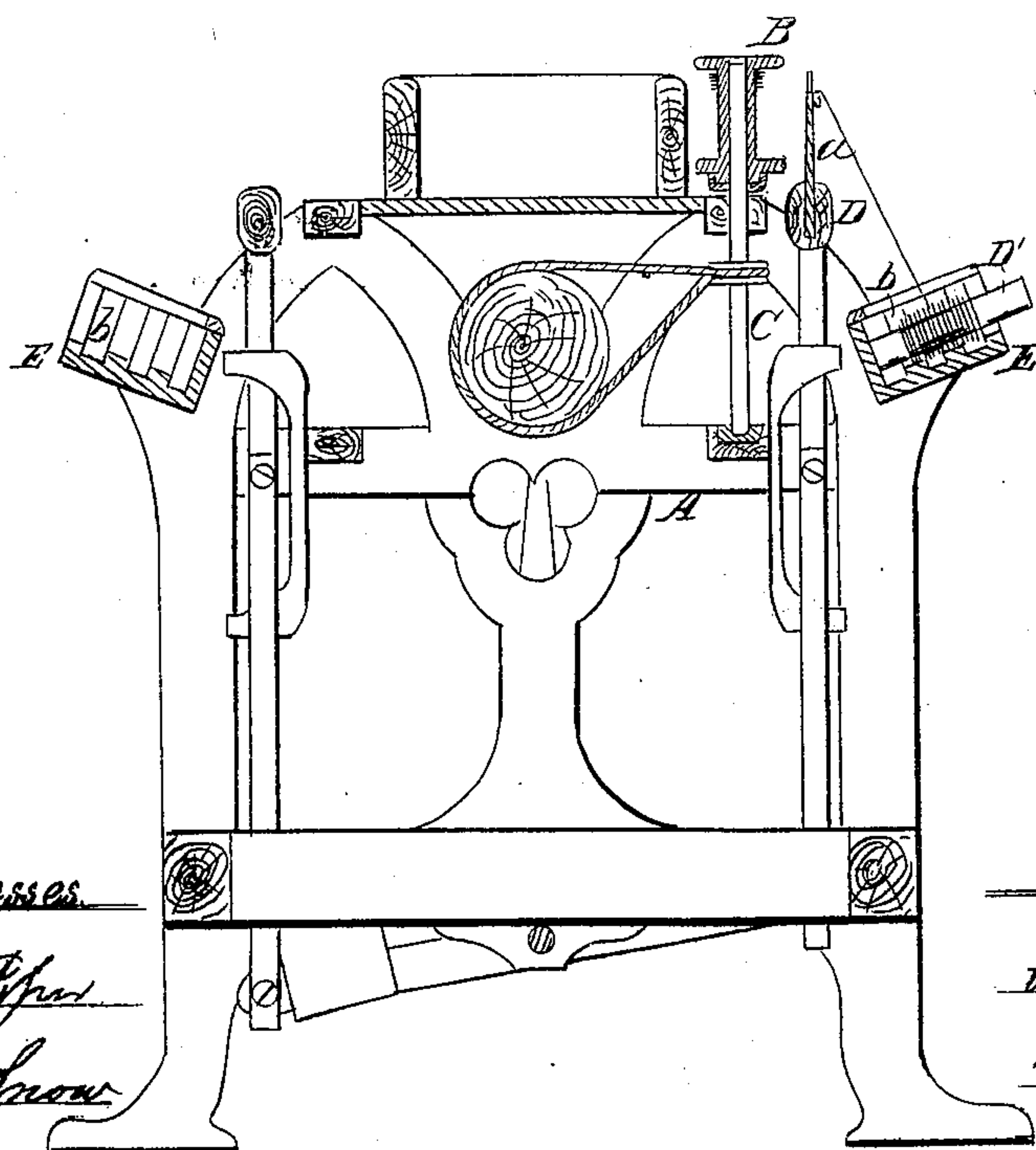


Fig. 2.



Witnesses
L. N. P. P.
J. B. Snow

A. M. Wade.
by his attorney
R. W. P.

United States Patent Office.

ASEL M. WADE, OF LAWRENCE, MASSACHUSETTS.

Letters Patent No. 93,254, dated August 3, 1869.

IMPROVEMENT IN MACHINE FOR SPOOLING THREAD.

The Schedule referred to in these Letters Patent and making part of the same.

To all persons to whom these presents may come :

Be it known that I, ASEL M. WADE, of Lawrence, of the county of Essex, and State of Massachusetts, have invented a new and useful Improvement in Machinery for Spooling Thread; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a front elevation, and

Figure 2, a transverse section of a spooling-machine, with my invention applied to it.

The purpose of the improvement is to hold the wound bobbin while the yarn or thread may be in the act of being unwound therefrom and transferred to and wound upon a spool.

The bobbin to be unwound is usually supported by a spindle, the employment of which, with its necessary adjuncts, my improvement renders unnecessary; as I use, in the place of a series of such spindles, a bar, formed with a series of cells or cavities, each being open at its front end, and provided with a slot opening through its top and to the front end.

In the drawings—

A denotes the frame of an ordinary spooling-machine;

B, one of the receiving-spools; and

C, its supporting-spindle.

D is the thread, or yarn-guide bar, furnished with a yarn-guide, *a*, arranged in front of the spool B.

The bobbin from which the yarn is to be drawn and spooled is shown at D', as placed in one of the cells or cavities, *b b*, &c., of a long bar, E, which is arranged with respect to the receiving-bobbin and the yarn-guide, and within the frame A, in manner as represented.

There is, within the bar E, a series of cells, *b b*, each of them being open at its front end and closed at its rear. It is also closed at top, except in having a slot, *c*, formed therein, and opening at the front, or mouth of the cell. Each cell has flaring sides and a curved bottom.

When a bobbin, D', is laid within a cell, its rear end will bear against the rear end of the cell.

The yarn from the bobbin is to be led up through the slot *c*, thence through the eye of the guide *a*, and thence to the receiving-spool, upon which the yarn is to be wound in the usual way.

I generally pivot or connect the cell-bar to the frame A, so that the former may be turned within the latter, and fixed in a manner to bring the bar into the best position for supporting the bobbins relatively to the guide-bar.

The cell-bar has many advantages over the spindles for supporting the bobbins, as it saves the expense of the oil required to lubricate their bearings.

The friction of the bobbin on the bottom of the cell obviates the necessity of any artificial arrangement for producing friction, so as to impede the unwinding of the thread.

With the cell the tension on the thread or yarn is nearly uniform, and consequently there is less liability of the breaking of the yarn when the cell is employed in lieu of the spindle. Furthermore, the cost of the cell-bar is very much less than that of a set of spindles, and the yarn is not liable to be over-strained by its use.

By having such cell open at its front end, the bobbin can be easily introduced into the cell or removed from it, as occasion may require. So, also, by having the thread-slot of each cell open at its front, we are enabled to pass the yarn into the slot to better advantage than would be the case were the slot closed in front.

I make no claim to the combination of a frame of cells (to hold balls of yarn) with a carriage, and a series of spindles of a spinning-machine, such being as represented in the United States Patent No. 51,054, dated November 21, 1865, my invention being an improvement having reference to a distinct machine, viz, one for spooling yarn.

I therefore claim as my invention the improved spooling-machine, as constructed with the celled bar E arranged as described, with the series of guides and the spooling-bobbins and spindles, or the equivalent thereof, to operate as and for the purpose described.

I also claim the bar as made, with each cell open at its front end, closed at its rear end, and provided with a slot through its top, as explained.

ASEL M. WADE.

Witnesses:

R. H. EDDY,

SAMUEL N. PIPER.