

E. L. Buckup. Winding Bobbin.

Nº 93,670.

Patented Aug. 17, 1869.

Fig. 1.

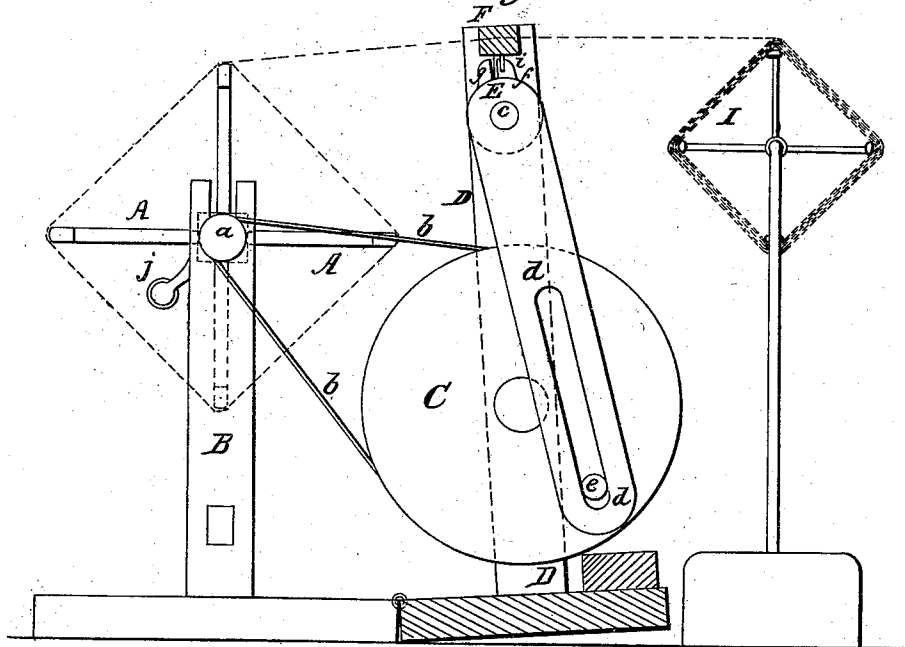
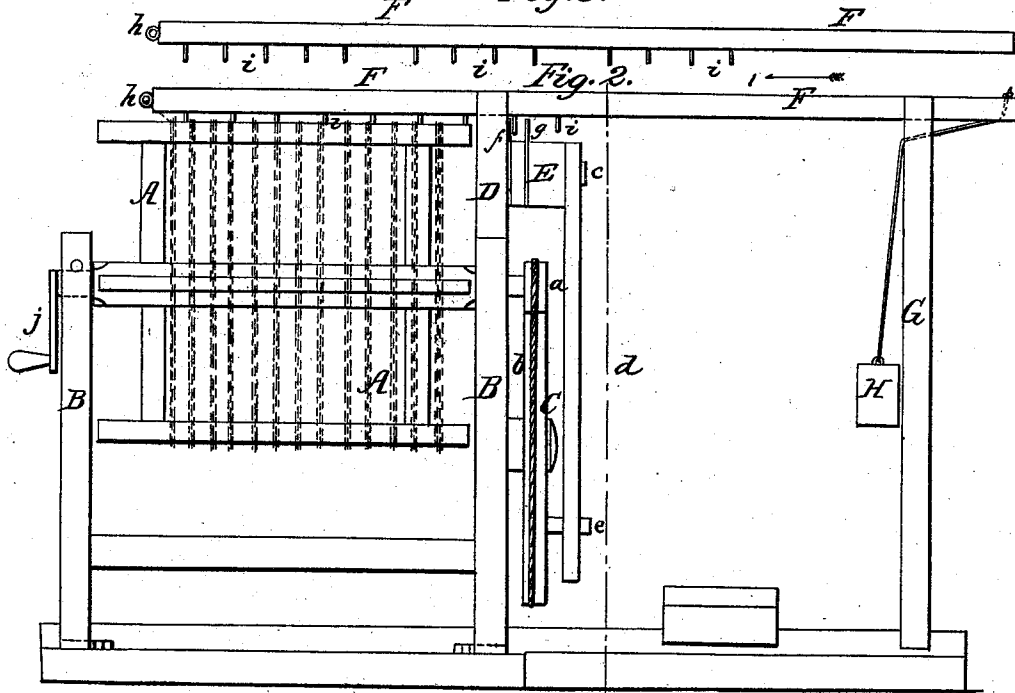


Fig. 3.



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E. L. BUCKUP, OF STAPLETON, NEW YORK.

Letters Patent No. 93,670, dated August 17, 1869.

IMPROVEMENT IN REEL FOR WINDING YARN.

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

To all whom it may concern :

Be it known that I, E. L. BUCKUP, of Stapleton, in the county of Richmond, and State of New York, have invented a new and improved Reeling-Machine; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents an end elevation of my improved reeling-machine.

Figure 2 is a side elevation of the same.

Figure 3 is a detail side view of a modification of the regulating-bar.

Similar letters of reference indicate corresponding parts.

This invention relates to an improved machine for automatically dividing thread into skeins and hanks, while the same is being wound upon a reel, thereby doing away with very tedious manual labor, and with much attention heretofore required in forming skeins and hanks.

The invention consists in the construction of devices hereinafter described, for operating a bar, which guides the thread on the reel in such a manner that a certain number of threads is brought together in sections, during the revolutions of the reel, to form skeins of suitable size.

The guide-bar receives its motion by a weight or spring, and is, while a skein is being formed, arrested by a stop projecting from an oscillating shaft.

Whenever a skein has been completed, the stop is withdrawn, and the bar is moved forward by the weight or spring, until it is arrested by another stop, from the same or another shaft, when it will guide the thread over another section of the reel, to form a new skein.

The distances between the pins that project from the guide-bar, to fit against the stops, may be so arranged that when a certain number of skeins has been formed, a larger space is left on the reel, to indicate that that certain number of skeins forms a hank.

A, in the drawing, represents the reel, which is to receive the thread, and on which the same is to be formed into skeins and hanks, or into skeins only.

The reel has its bearings on posts B B, and has a small pulley, *a*, formed near one end of its axle.

C is a drum or wheel, the axle of which has its bearings in a post, D, as shown.

The wheel C is, by means of a belt, *b*, or by other equivalent mechanism, connected with the pulley *a*.

Instead of being a pulley, *a* may be a pinion, and would, in that case, either directly or by means of intermediate gearing, be connected with the wheel C, which would have teeth on its edge.

On a pin, *c*, that projects from the post D, is hung a short tube, E, which has a rod, *d*, projecting from it, said rod being slotted at its lower end, as shown.

A crank-pin, *e*, projecting from the wheel C, fits through the slot of the rod *d*.

Thus, as the wheel C is revolved, the short tube E will be oscillated back and forth.

Instead of being a tube, hung on the pin *c*, E may be a rod or shaft, pivoted to the support D, or to any other support.

From the tube or shaft E project two lugs, *f* and *g*, at different angles, as shown.

F is a rod or bar, placed upon the posts D and G, as shown, so that it can slide thereon.

By means of a weight, H, or its equivalent, the rod F receives the tendency to move in the direction of the arrow 1, fig. 2.

The rod F is parallel with the axle of the reel A, or nearly so, and has an eye, *h*, at one end, as shown.

From one edge of the rod F projects, at certain intervals, a series of pins, *i i*, which are in the way of the lugs *f g*, as shown.

I is the reel or device, from which the thread is to be unwound, to be divided into skeins.

The thread is first fitted through the eye *h*, and its end is then fastened to one end of the reel A.

When, then, the reel A is revolved, by means of a crank, *j*, or otherwise, the thread will be wound around it.

At the same time the shaft E will be oscillated, and after a certain number of revolutions, say three, of the reel, the stop *f*, (or *g*), which arrested the bar F, will be drawn aside, so that the weight will draw the bar forward, until the next pin *i* strikes the stop *g*.

The eye *h* will, by this motion, have been brought so far forward that during the further revolutions of the reel A, it will guide the thread to another portion of the reel.

After another certain number of revolutions, the stop *g* is withdrawn, and the stop *f* again arrests the guide-bar, &c., the thread being thus laid in sections around the reel, all containing the requisite quantity of thread, as shown in fig. 2.

Each section forms a skein, which may be tied.

When certain numbers of skeins are also to be grouped into hanks, the distances between the pins *i* should be such, that four, or more or less pins, form groups, as in fig. 3, thereby at once indicating the hanks.

Instead of the pins *i*, notches or holes may be formed in the bar F, the stops *f* and *g*, which may be of suitable form, fitting alternately into such notches or holes.

To regulate the quantity of thread to each skein,

the pulley *a*, or its equivalent, should be removable, to vary the number of revolutions of A to each oscillation of E.

When the connection between A and C is a belt, the length of belt would, by such an adjustment of the pulley, have to be varied, to avoid which the posts D G may be fastened to a hinged bed-plate, as shown.

I claim as new, and desire to secure by Letters Patent—

The combination of the guide-bar F, oscillating stops *f g*, slotted rod *d*, and wheel C, constructed as described, for the purpose specified.

Witnesses:

E. L. BUCKUP.

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