W. Mattison.
Spinning Mach.

No. 18,121. Patented Sep. 1, 1857.

Fig. 1.

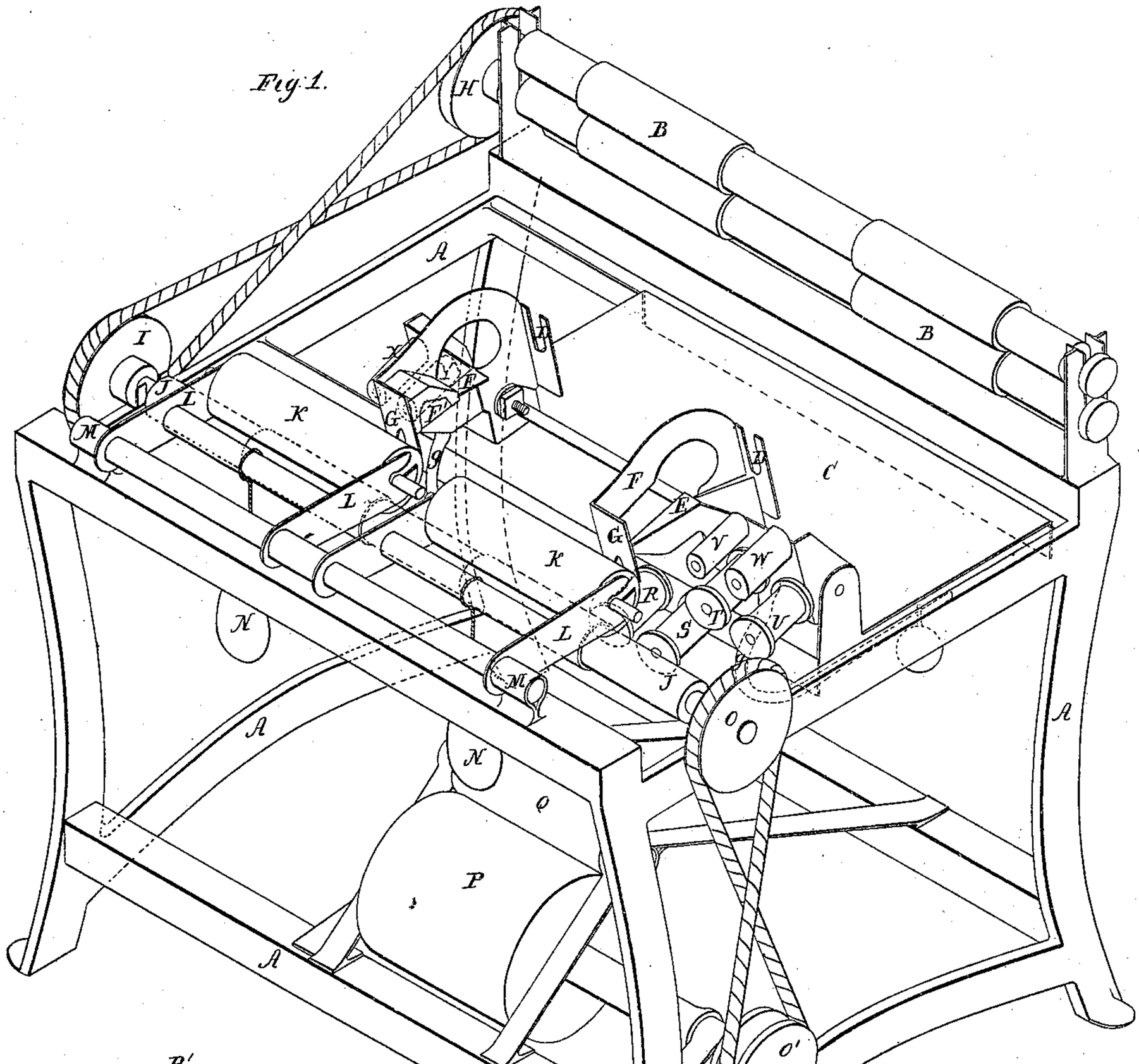
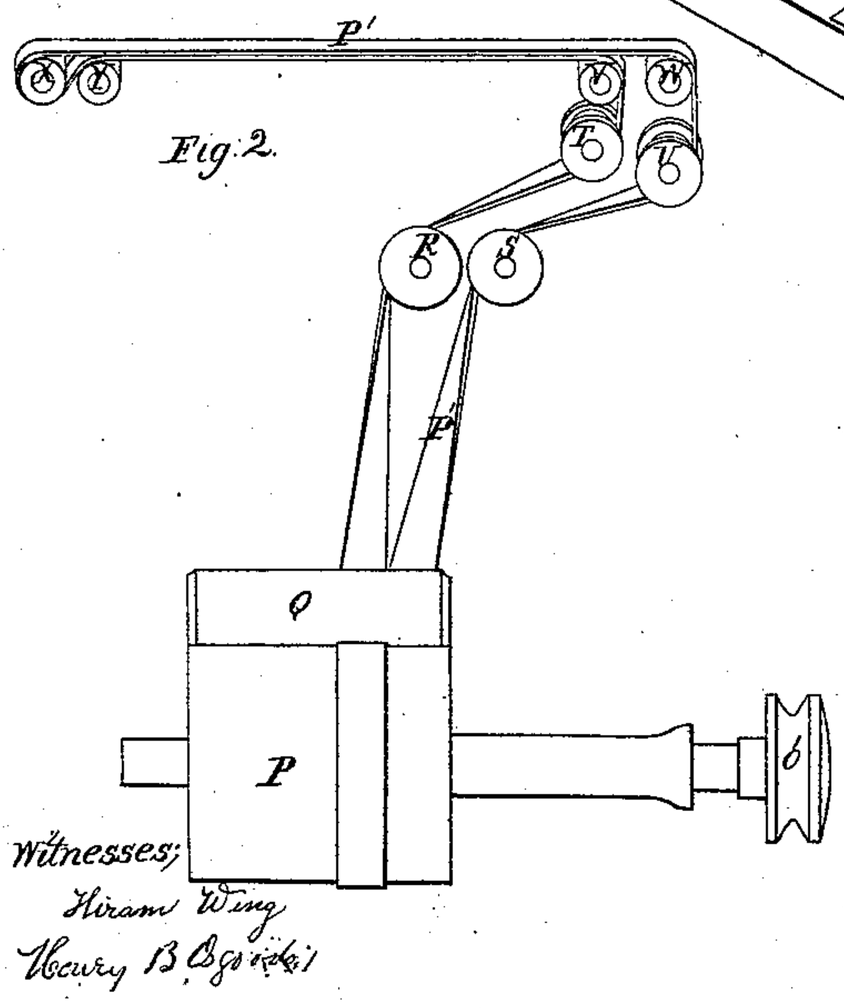


Fig. 2.



Witnesses;
Hiram Wing
Henry B. Goodwin

Fig. 3.

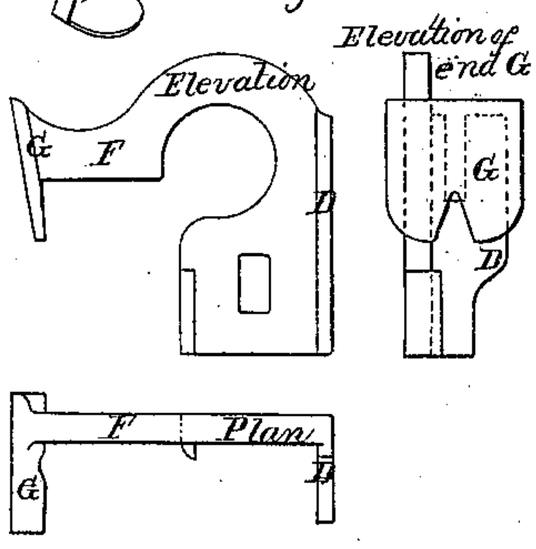
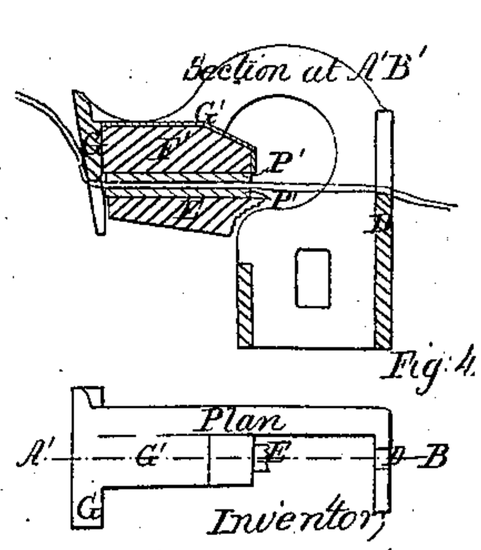


Fig. 4.



Inventor;
William Mattison

UNITED STATES PATENT OFFICE.

WILLIAM MATTISON, OF NORTHBRIDGE, MASSACHUSETTS, ASSIGNOR TO JNO. C. WHITIN.

CONDENSER FOR LIST-SPEEDERS.

Specification of Letters Patent No. 18,121, dated September 1, 1857.

To all whom it may concern:

Be it known that I, WILLIAM MATTISON, of Northbridge, in the county of Worcester and State of Massachusetts, have invented a new and useful Self-Adjusting Condenser for the Machine Commonly Called the "Taunton" or "List" Speeder; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making part of this specification, and to the letters of reference marked thereon.

Figure 1 is an isometric view showing one bobbin with condenser as usually constructed; and one with my improvement attached. Fig. 2 is a detail to be referred to hereafter. Fig. 3 represents full size a condenser, as usually made. Fig. 4 represents full size my self adjusting condenser.

The Taunton or list speeder was designed for drawing and condensing the roving from the drawing frame cans; and winding it upon suitable bobbins for the spinning frames, and mules. For condensing, the roving is made to pass between the upper and lower parts of an endless belt, and in starting a machine the condensers, F, are made, by adjustment to press upon the belt so that pressure between the condenser, F, and the rest, E, shall condense it sufficiently. But it is difficult to adjust them equally, and as the belt, which is usually made of list, wears, the pressure is diminished; the roving, or slivers, are not uniformly acted upon, they often break from want of sufficent strength, and a loss of time and waste of material, and unevenness in the yarn, from many piecings, is the result.

To remedy these defects, and to enable me to make roving of greater strength and uniformity, and to wind more upon a bobbin is the object of my present invention which consists in the application of weights—varying according to the size and number of roving wanted—on the belt, over each ply of roving, as it passes through; the weights being equal, and following down as the belt wears. Springs may be used, but are more expensive, difficult of adjustment, and not so certain in their operation.

To enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation.

In Fig. 1 of the drawings, A, is the frame of the machine, B, the rolls which draw and feed the roving from the tin cans, C, a table, which is made to travel back and forth horizontally, for the purpose of laying the roving upon the bobbins: attached to the table, C, and moving with it, are the guides, D, (Figs. 1, 3 and 4,) the rests, E, the condensers, F, and, F′, and the layers G: the layers are made to bear lightly upon the bobbins, as they traverse; and are regulated by the levers and weights, *g*. Upon the shaft of the lower roll is a pulley, H, which drives a pulley, I, upon one end of the roller, J. By friction of the bosses of the roller, J, upon the barrels of the bobbins, K, or wound rovings, the bobbins are made to revolve thereby winding the roving upon the bobbins as they draw it through the layers, G. The bobbins, K, have bearings in the frame, L; these frames pivot at M, so that they can be thrown back for the removal of the filled bobbins and empty ones put in their places: the frames, L, are weighted by N, for the purpose of creating the requisite friction. On the other end of the roller, J, is a pulley, O, which drives the pulley, O′, on the shaft of the drum, P. Over this drum passes the belt of list, or other suitable material, P′, (Figs. 1 and 2) under the roller Q, over the rolls, R, S, T, U, V, W, X, Y.

At Fig. 4, are shown the position of the belt, and its connection with the rest, E, and condenser F′. The roving is represented by the red line passing through the guide, D, between the upper and lower parts of the belt, P′, under the layer, G.

G′ is a bonnet, or casing for keeping my self adjusting condenser in its place.

Having thus described its construction and operation what I claim as my invention and desire to secure by Letters Patent is—

The self adjusting weight, or condenser, F′, applied in the manner described; and detained in its position by the casing or bonnet, G′, or its equivalent substantially as described for the purpose specified.

WILLIAM MATTISON.

Witnesses:
HIRAM WING,
HENRY B. OSGOOD.