

G. Albright

Domestic Spinning Mach.

No 43467.

Patented Jul. 12, 1864.

Fig. 3.

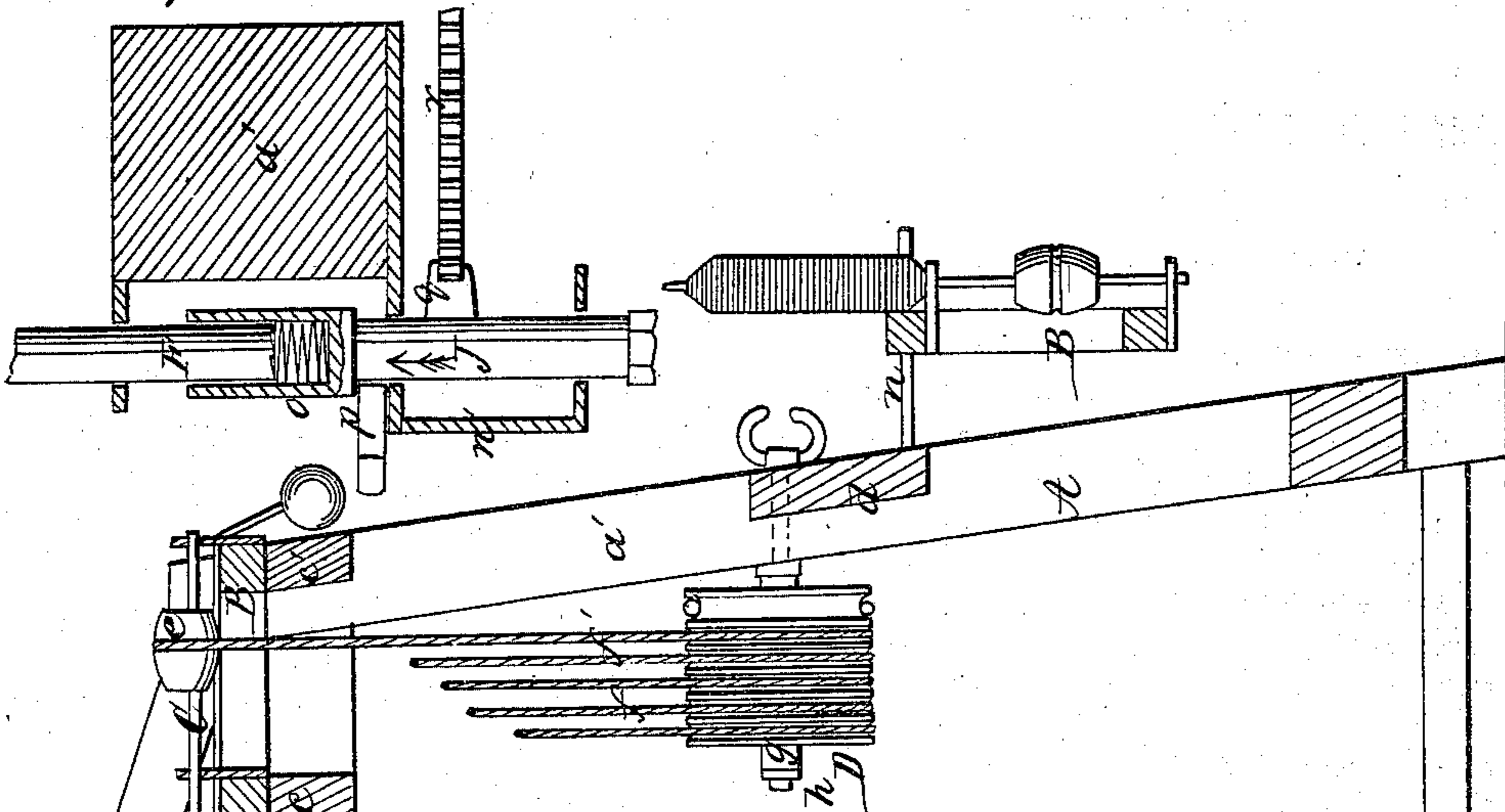


Fig. 2.

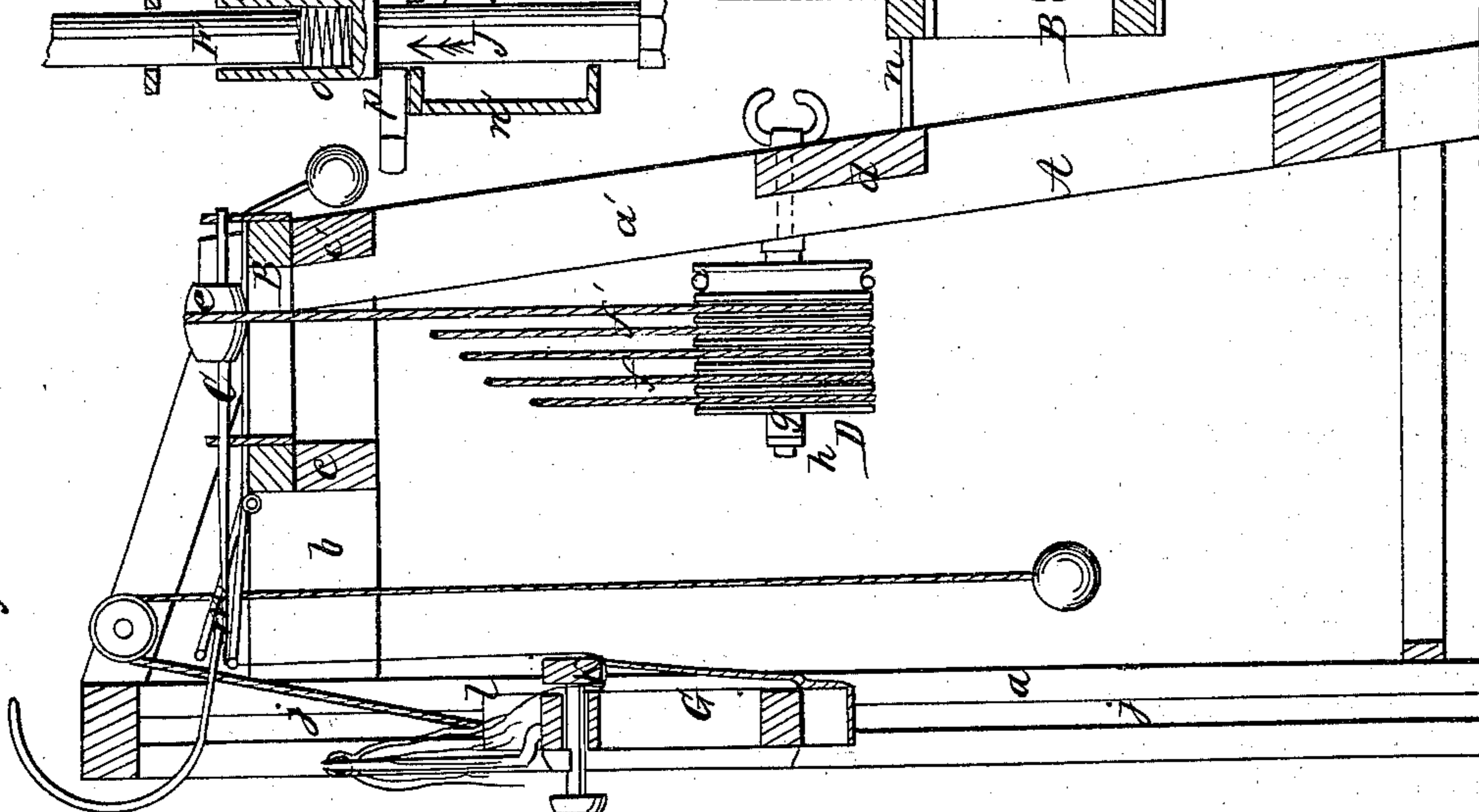
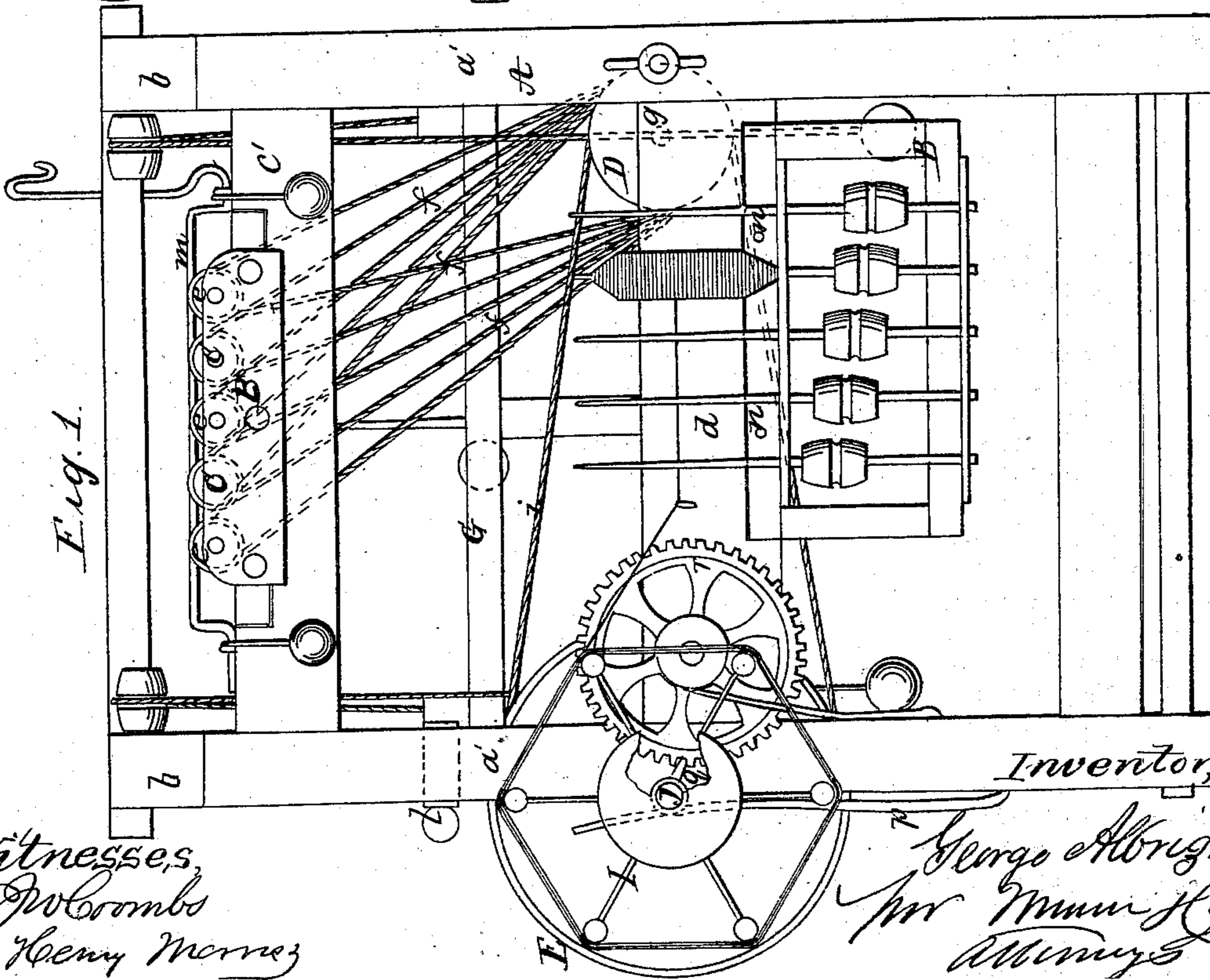


Fig. 1.



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UNITED STATES PATENT OFFICE.

GEORGE ALBRIGHT, OF OSKALOOSA, IOWA.

IMPROVEMENT IN MACHINES FOR SPINNING AND REELING.

Specification forming part of Letters Patent No. 43,467, dated July 12, 1864.

To all whom it may concern :

Be it known that I, GEORGE ALBRIGHT, of Oskaloosa, in the county of Mahaska and State of Iowa, have invented a new and Improved Machine for Spinning and Reeling; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a front elevation of my invention. Fig. 2 is a transverse vertical section of the same. Fig. 3 is a detached horizontal section of the mechanism for coupling and uncoupling the reel, in a larger scale than the previous figures.

Similar letters of reference in the three views indicate corresponding parts.

This invention consists in a movable frame containing a series of spindles, so arranged that it can be changed from a horizontal to a vertical position, in combination with a vertically-sliding clove-frame, and with a reel, in such a manner that when said movable frame is brought into a horizontal position the spindles are properly situated for spinning, and if the movable frame is brought into a vertical position the spindles are properly situated for reeling, the reel-shaft being connected to the main driving-shaft by a spring sleeve-coupling, whereby the two shafts can be connected or disconnected instantaneously and the operations of spinning and reeling can be conducted simultaneously or one independent of the other, as may be desired. The quality of the thread to be spun is determined by an adjustable clasp, whereby the length of the rovings drawn out of the clove-frame can be regulated.

To enable others skilled in the art to make and use my invention, I will proceed to describe it.

A represents a frame, made of wood or any other suitable material, and composed of four uprights, *a a'*, that are connected by the transverse cross-bars *b* and by the longitudinal cross-bars *c c' d*. The top cross-bars, *c c'*, are cut out so as to form a recess capable of receiving the frame B, which carries a series of spindles, C. These spindles are provided with wheels *e*, to receive cords or belts *f*, which transmit to the spindles a rotary motion from the drum D. This drum is attached to a short arbor, *g*, which has its bearings in a suitable

bracket, *h*, secured to the main frame, and it (the drum) communicates by means of a belt, *i*, with the band-wheel E, which is secured to the main shaft F, so that by rotating said main shaft a quick rotary motion is imparted to the spindles. The uprights *a* of the main frame A are provided with grooves *j*, which form the guides for the rising and falling clove-frame G. This frame is intended to support the rolls, and it is provided with a spring clasp or clove, *k*, to retain the ends of the rovings while the frame descends and the spinning is accomplished. The fineness of the thread to be spun depends upon the length of the rovings retained between the clove *k*. For coarse thread this length is greater than for fine thread, and it (the length of the rovings) is regulated by a clasp, *l*, which is adjustable on one of the uprights *a*. By means of this clasp the length of the rovings fastened in the clove can be determined, and after said clasp has been set for a certain quality of thread the operation of spinning commences. The spinner takes hold of the crank on the main shaft F with one hand, and with the other he takes hold of the clove-frame G, and while a rotary motion is imparted to the spindles by the action of the main shaft the clove-frame is slowly carried down to the bottom of the main frame, (the rovings having been previously secured to the points of the spindles,) and after one stretch is thereby spun the clove-frame is raised and the spindles simultaneously whirled slowly to take up the yarn, which is laid on in a conical cop by the action of the faller-wire *m*. After the spindles in the movable frame B are filled with thread, said frame is taken out of the recess in the top cross-bars, *c c'*, and secured in an upright position on pins *n*, projecting from the front of the main frame A. The spindles are thus brought in the proper position for reeling.

I is the reel, which is constructed in the usual manner, its circumference being so adjusted that it corresponds to a certain length of thread. Said reel is secured to the end of a shaft, J, which has its bearings in a bracket secured to the frame A, and which is in line with the main driving-shaft F, and connected with the same by a spring sleeve-coupling, *o*. By pushing the shaft J in the direction of the arrow marked on it in Fig. 3, the end of the spring catches in one of the notches cut in the

end of the shaft *F*, and a spring-lever, *p*, prevents the reel-shaft returning to its original position. By raising said lever the coupling *o* uncouples spontaneously and the reel-shaft remains stationary. The revolutions of the reel are registered by the action of a tooth, *q*, on a cog-wheel, *r*, and this cog-wheel may be provided with an index to show the number of its revolutions and the quantity of thread wound on the reel, or the number of skeins taken from the spindles. By this arrangement the operations of spinning and reeling can be effected simultaneously by one and the same person, the spinning being effected on one and the reeling on the opposite side of the main frame; and, furthermore, by the simple adjustment of the clasp *l* the fineness of thread to be spun can be regulated in a very easy manner.

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

1. The movable frame *B*, carrying a series of spindles, *C*, in combination with the rising and falling clove frame *G*, reel *I*, and with a recess in the top cross-bars, *e e'*, of the main frame *A*, and pins *n*, projecting from the front side of said main frame, all constructed and operating in the manner and for the purpose substantially as herein shown and described.

2. The adjustable clasp *l*, in combination with the rising and falling clove-frame *G* and spindle-frame *B*, constructed and operating in the manner and for the purpose substantially as set forth.

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Witnesses:

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