

H. GREENWAY.

Machines for Making Rope.

No. 134,050.

Patented Dec. 17, 1872.

Fig. 1.

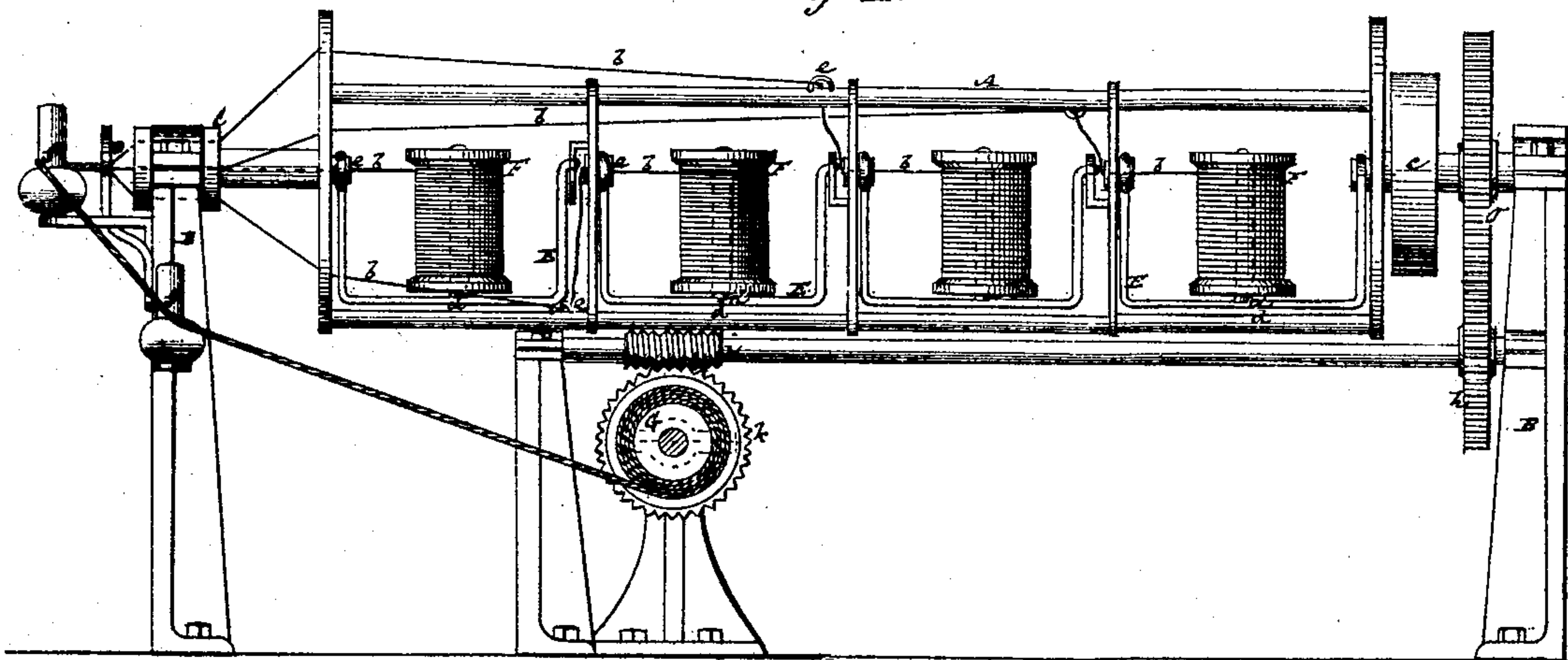


Fig. 2.

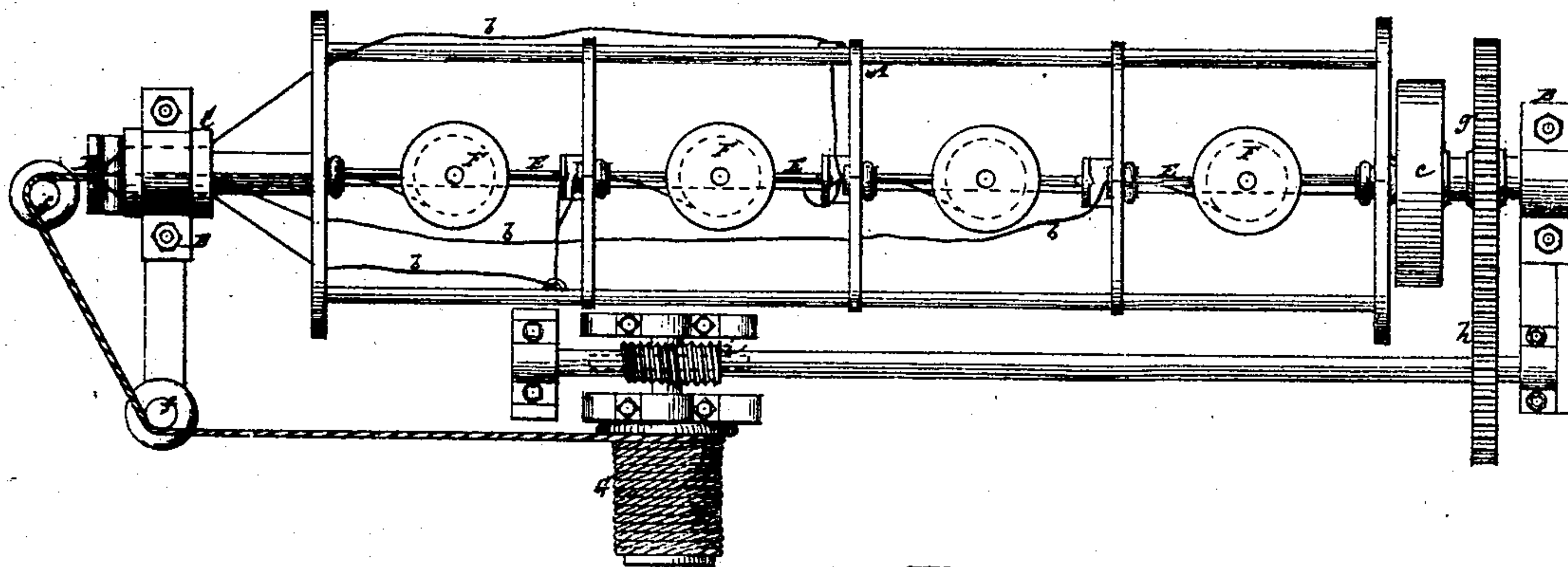
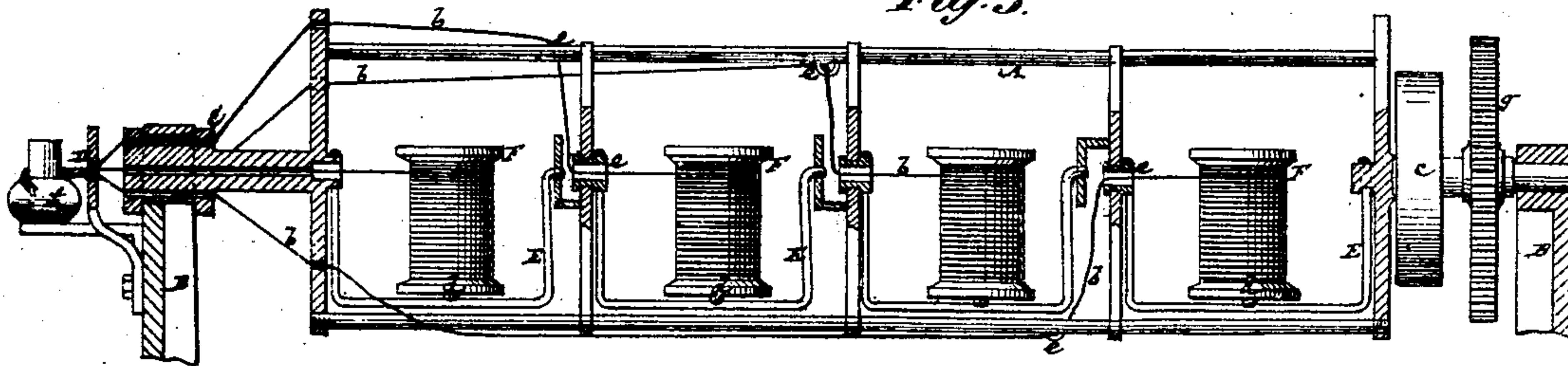


Fig. 3.



Witnesses:

Fred Haumer
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UNITED STATES PATENT OFFICE

HENRY GREENWAY, OF EAST NEWARK, NEW JERSEY, ASSIGNOR TO WILLIAM STANIAR AND JOHN LAFFEY, OF NEW YORK CITY.

IMPROVEMENT IN MACHINES FOR MAKING ROPE.

Specification forming part of Letters Patent No. 134,050, dated December 17, 1872.

CASE A.

To all whom it may concern:

Be it known that I, HENRY GREENWAY, of East Newark, in the county of Essex and State of New Jersey, have invented an Improvement in Machines for Making Rope, of which the following is a specification:

This invention relates to machines for twisting wire and other materials into rope; also, for twisting silk or other fibrous material, or combination of metal with fibrous materials. The invention consists in a combination, with a revolving horizontal or nearly horizontal frame, provided with a die at its one end through which all the wires or strands pass to be twisted, of a number of cranked spool-holders arranged within said frame and made pendent in line with the axis of the frame, so that the spools from which the wires or strands are taken lie in one straight line or course within the frame, and, while free to revolve about their long axes, are kept by gravitation from rotating about their short or transverse axes, thereby dispensing with complicated mechanism and much friction to effect the twisting of the wires or strands together without putting twist in them individually, and whereby the machine may be run at a very high velocity, thus producing an increased amount of rope within a given time.

In the accompanying drawing which forms part of this specification, Figure 1 represents a longitudinal elevation of a machine for making wire-rope, constructed in accordance with my invention; Fig. 2, a plan of the same; and Fig. 3, a longitudinal vertical section thereof.

Similar letters of reference indicate corresponding parts throughout the several figures of the drawing.

A represents a horizontal frame with a journal at both ends arranged to revolve in up-rights or standards B B. The one journal has mounted on it or is constructed to constitute a die, C, that revolves in concert with the frame A, and through which the several wires or strands *b b* pass to a laying-guide, D, for

the purpose of twisting the strands together to form rope. The frame A may be rotated by a pulley, *c*, or otherwise. Arranged within and along the frame A is any desired number of cranked spool-holders, E, hung so as to be free or pendent from points or supports concentric with said frame or in line with its longitudinal axis. These spool-holders carry the spools F F, which thus are arranged in a straight course along and within the frame, and that are free to revolve about their long axes on or around vertical studs *d d*, but are restrained by their weight and that of their holders from revolving about their short axes in common with the rotation of the frame. The several wires or strands *b b* pass from their respective spools, through concentric and side eyes or guides *e e*, to and through the one head or end of the revolving frame A, and from thence through the die C to the laying-guide D, from which the several strands, being twisted together, but without having twist put in them separately, issue as rope. This rope then passes over or round guide-rollers *f f* to the take-up drum G, which may receive its motion by spur-gears *g h*, screw *i*, and worm-wheel *k*, and according to the velocity at which it is revolved relatively to the speed of the frame A will the coarseness or fineness of the twist in the rope be regulated.

What is here claimed, and desired to be secured by Letters Patent, is—

The combination, with the revolving frame A and twisting-die C, of the cranked spool-holders E E, when the spools are supported on vertical axes arranged one behind or in advance of the other in direction of the length of said frame, and pendent from centers in line with the axis of the frame, substantially as specified.

HENRY GREENWAY.

Witnesses:

FRED. HAYNES,
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