

(No Model.)

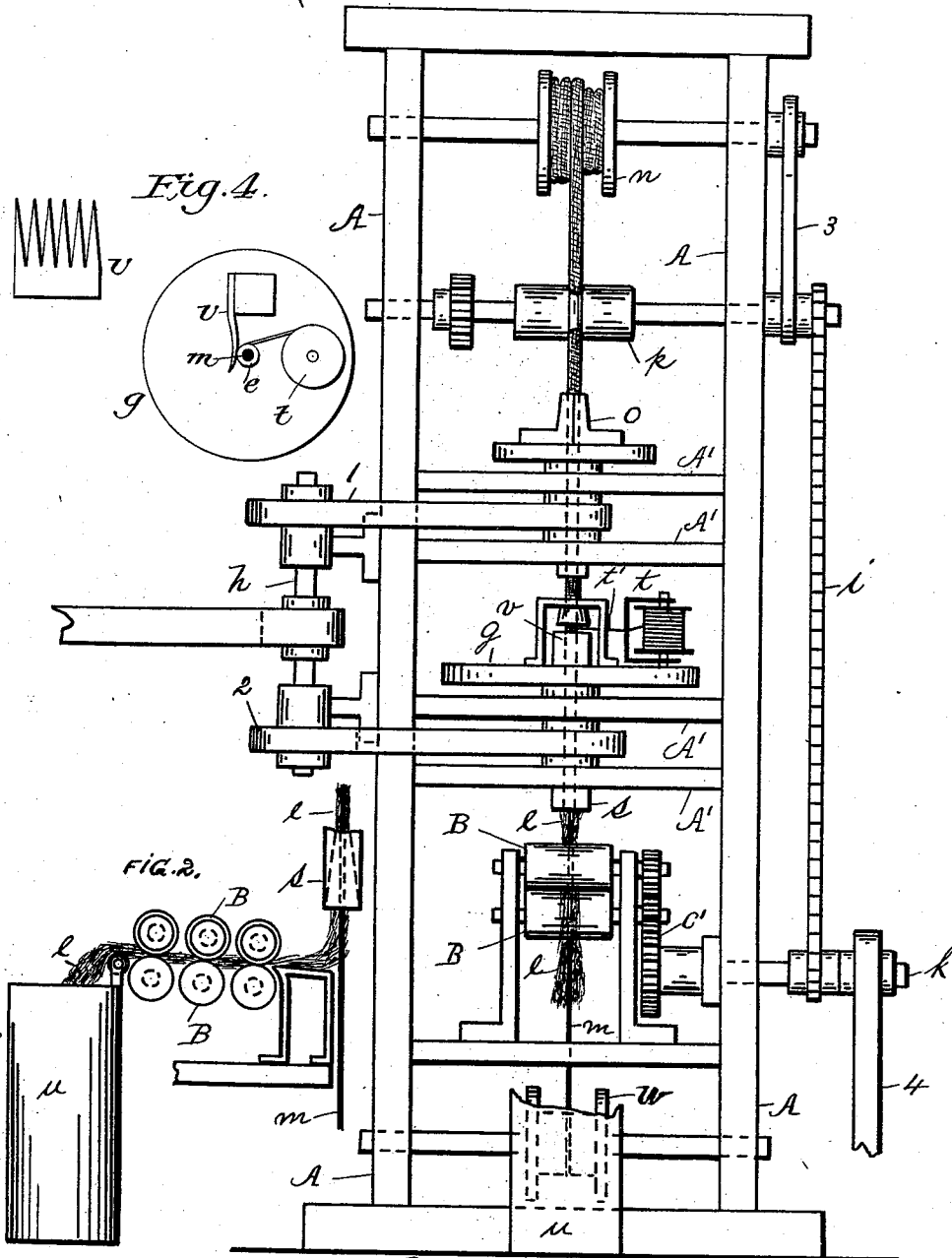
F. S. RANDALL

MACHINE FOR PLACING FIBER ON WIRE.

No. 540,688.

Patented June 11, 1895.

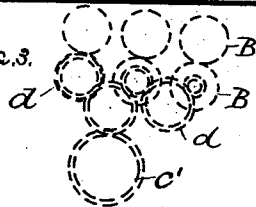
FIG. 1.



WITNESSES:

H. A. Engle
Charles Ray

FIG. 3.



INVENTOR

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FRANKLIN S. RANDALL, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO HOWARD A. ENGLE, W. HOWARD HOLDEN, AND DILLWYN P. ROBERTS, OF SAME PLACE.

MACHINE FOR PLACING FIBER ON WIRE.

SPECIFICATION forming part of Letters Patent No. 540,688, dated June 11, 1895.

Application filed October 1, 1894. Serial No. 524,570. (No model.)

To all whom it may concern:

Be it known that I, FRANKLIN S. RANDALL, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Machines for Spinning Fiber on Wire; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention refers to a machine for drawing and placing straightened fibers on a metal core in alignment with its axis; and the invention consists in the use of drawing and feeding rolls for introducing the straightened fibers to the wire, a device for combing the surface fibers around it, and means for lashing the straightened fibers evenly to it.

In the drawings attached, Figure 1 is a front elevation of the machine. Fig. 2 is a detached side view of the drawing and feeding rolls and other immediately associated parts. Fig. 3 shows in broken lines a form of gear-drive for the said rolls. Fig. 4 is a detached view of the comb and a plan view of the winding apparatus.

Between the uprights A, A, near the bottom is represented the let-off reel *w*, supplied with the naked wire *m*, and near the top of the standards is the take-up reel *n*, for receiving the covered wire. Directly below the take-up reel *n*, are journaled in the frame A, the drag-rolls *p*, and occupying a position lower down journaled in the cross-girts A', A', respectively, is the polishing device *o*, and the winding apparatus *g*. Both of these parts are driven from the power shaft *h*, by means of the belts 1 and 2.

The mandrel *s* of the winding apparatus *g*, is tapering on the inside from the bottom to the top, and the circular top plate of this part is provided with a winding reel *t* and a comb *v*.

Mounted in any suitable manner in the

frame of the machine below the mouth of the hollow tapering mandrel *s*, are the drawing and feeding rolls B, receiving their rotary motion by means of the train of gearing *d*, actuated by a gear *c'*, on the inner end of the power shaft *h*, which is revolved by means of the belt 4.

A sprocket chain *i*, communicates positive motion to the drag-rolls *p*, from one of the shafts by which the take-up reel *n*, is driven by means of the belt 3.

In the placing of the fiber *e* on the wire it is introduced into the series of drawing rolls B, in the form of a strip of sliver coming from the receptacle *u*, and after passing through the series of rolls it is delivered to the vertically moving wire with its fibers straightened and drawn to the required amount necessary to cover the wire to the proper thickness. The upward movement of the wire *m*, corresponding approximately to the delivery of the feed rolls, but being slightly greater than that delivery. After passing through the said revolving hollow tapering mandrel they are then acted upon by a revolving comb *v* secured to the upper face of the revolving circular plate carrying the reel *t*, which lashes the straightened fibers firmly and evenly around the wire.

The lashing thread secures the fiber firmly on the wire during the necessary subsequent baths of the covered wire in the insulating compound in manufacturing insulated wires.

I claim—

In a machine for placing parallel fiber longitudinally on a wire the combination of a series of drawing and feeding rolls, a revolving plate having a hollow tapering mandrel said plate being provided with a winding reel and comb, means for drawing the wire through the mandrel and plate and means whereby said parts are operated in the manner and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

FRANKLIN S. RANDALL.

Witnesses:

H. A. ENGLE,
CHARLES RAY.