

(No Model.)

W. EDENBORN.
MACHINE FOR COILING WIRE.

No. 480,564.

Patented Aug. 9, 1892.

Fig. I.

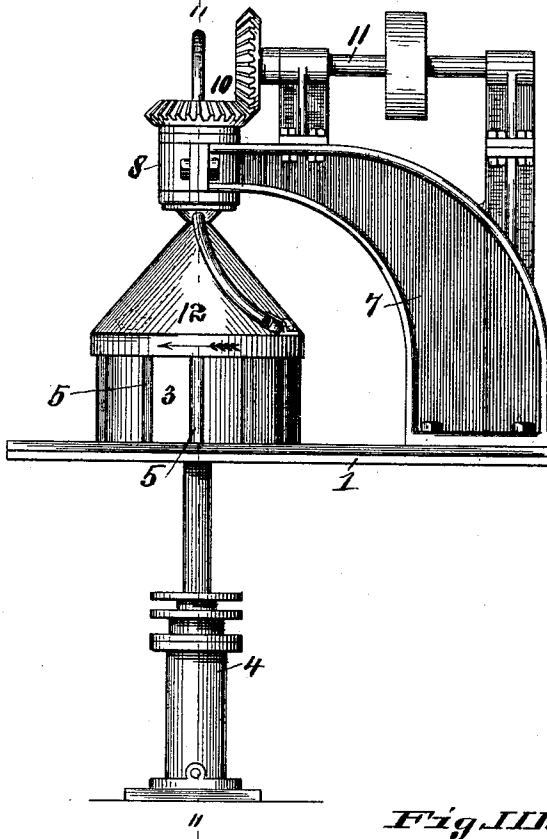


Fig. II.

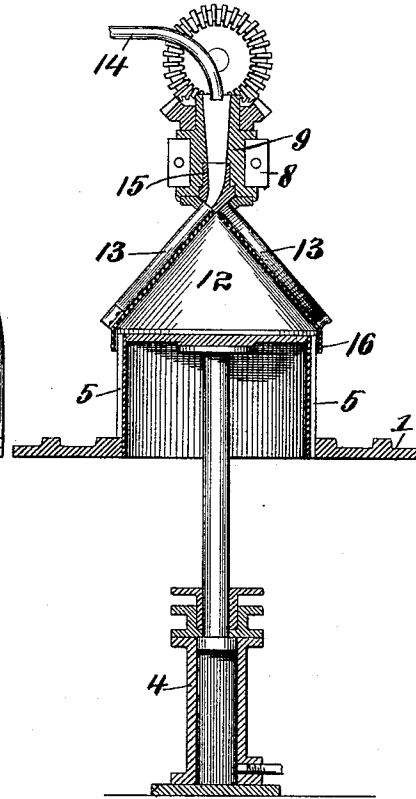
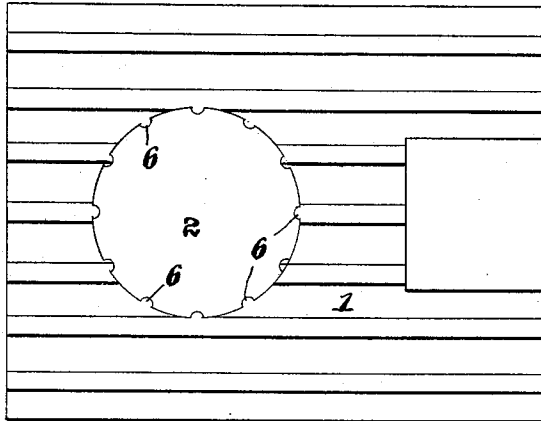


Fig. III.



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WILLIAM EDENBORN, OF ST. LOUIS, MISSOURI.

MACHINE FOR COILING WIRE.

SPECIFICATION forming part of Letters Patent No. 480,564, dated August 9, 1892.

Application filed November 16, 1891. Serial No. 412,054. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM EDENBORN, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Machines for Coiling Wire, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My present invention relates to certain improvements in the class of wire-coiling machines shown, described, and claimed in my application for patent, Serial No. 373,809, filed December 6, 1890, allowed June 15, 1891; and my present invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Figure I is a side elevation illustrative of my invention. Fig. II is a vertical section taken on the line II II, Fig. I. Fig. III is a top or plan view of the table of the machine.

Referring to the drawings, 1 represents a table having an opening 2, in which fits and moves a cylinder 3, raised and lowered by a hydraulic ram 4 or by other suitable means. The cylinder has grooves 5, receiving ribs or projections 6 on the table, by which it is held from turning, and a closed upper head for preventing the wire becoming tangled or entering the cylinder and rendering the coiling positive and certain.

7 represents an arm provided with a journal-box 8, which receives a hollow spindle or sleeve 9. The spindle is connected by gearing 10 to a driving-shaft 11.

12 represents a cone secured to the spindle 9 and carrying guide-tubes 13, through which the wire passes from the feed-tube 14.

15 is a bushing in the spindle 9, which may be turned to direct the wire into either of the tubes 13. These parts 9, 13, and 14 are the same in substance as the corresponding parts in my application referred to.

The cone 12 of this application differs from the cone of my other application mentioned in that it has a flange 16, which embraces the upper end of the cylinder when the latter is in its upper or receiving position.

The object of this invention is twofold:

First. It permits the upper end of the cylinder when the cylinder is in its upper position to entirely enter the cone, and thus avoids any possibility of the wire as it issues from the tubes 13 being caught or taking any other course than being wound around the cylinder. This in practice is of importance.

Second. The flange provides a surface larger than the cylinder, upon which the last coils of wire are wound, these last coils being the wire contained in the tubes after the end of the wire has left the rolls, (not shown,) and the friction of the wire in the tubes causes it to be drawn very tight, so that when the cylinder is lowered to free it of the coiled wire these last coils, being drawn over the larger moving surface, will drop down onto the main part of the coil and will not be contracted upon the cylinder in coiling, as they would if drawn and wound upon it; and thus these coils do not interfere with the removal of the cylinder from the wire coil. It will be understood that as the cone revolves the last coils will not be permitted to shrink tightly on it, as they would if drawn upon the surface of the cylinder, which does not revolve.

I claim as my invention—

1. In a machine for coiling wire, the combination of a cylinder having a closed upper head, a winding-cone supported above the cylinder and fitting over the upper end of the cylinder, and means for moving the cylinder away from the cone, substantially as and for the purpose set forth.

2. In a machine for coiling wire, the combination of a cylinder having a closed upper head, a winding-cone supported above said cylinder and having a depending flange 16, inclosing the upper end of the cylinder, and means for moving the cylinder away from the winding-cone, substantially as and for the purpose explained.

WILLIAM EDENBORN.

In presence of—

A. M. EBERSOLE,
E. S. KNIGHT.