(No Model.)

J. LYNAM.

WIRE REELING MACHINE.

No. 274,953. Patented Apr. 3, 1883.

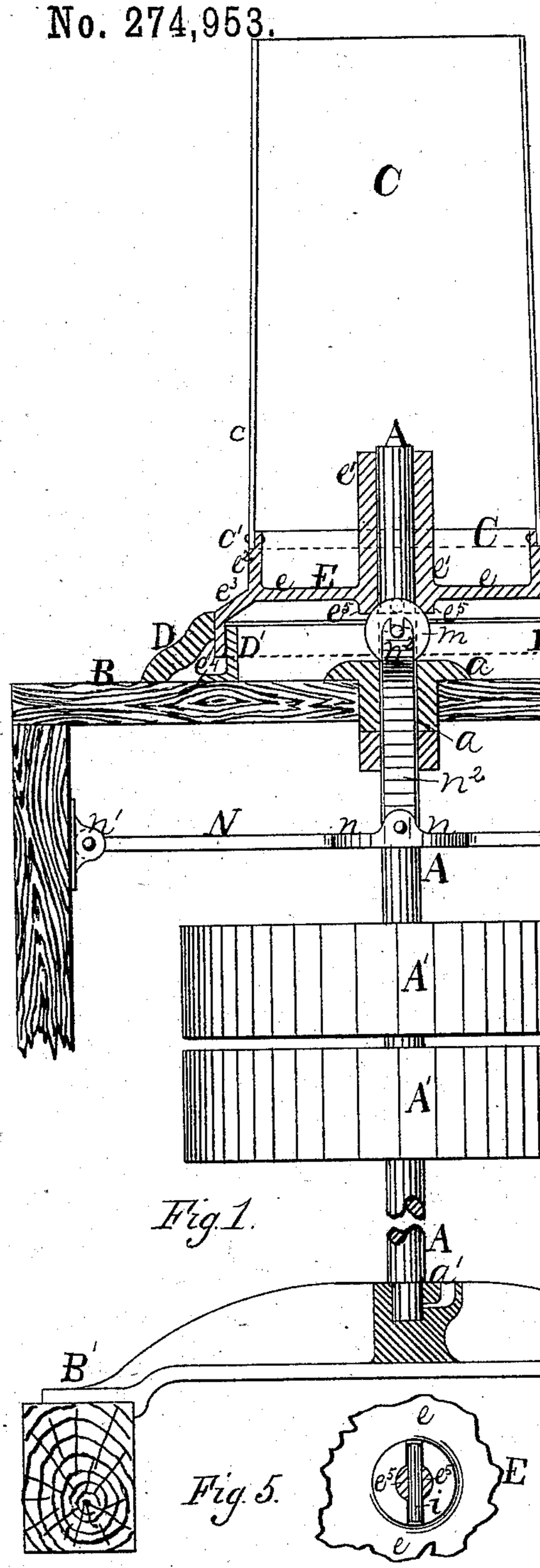

Fig. 1.

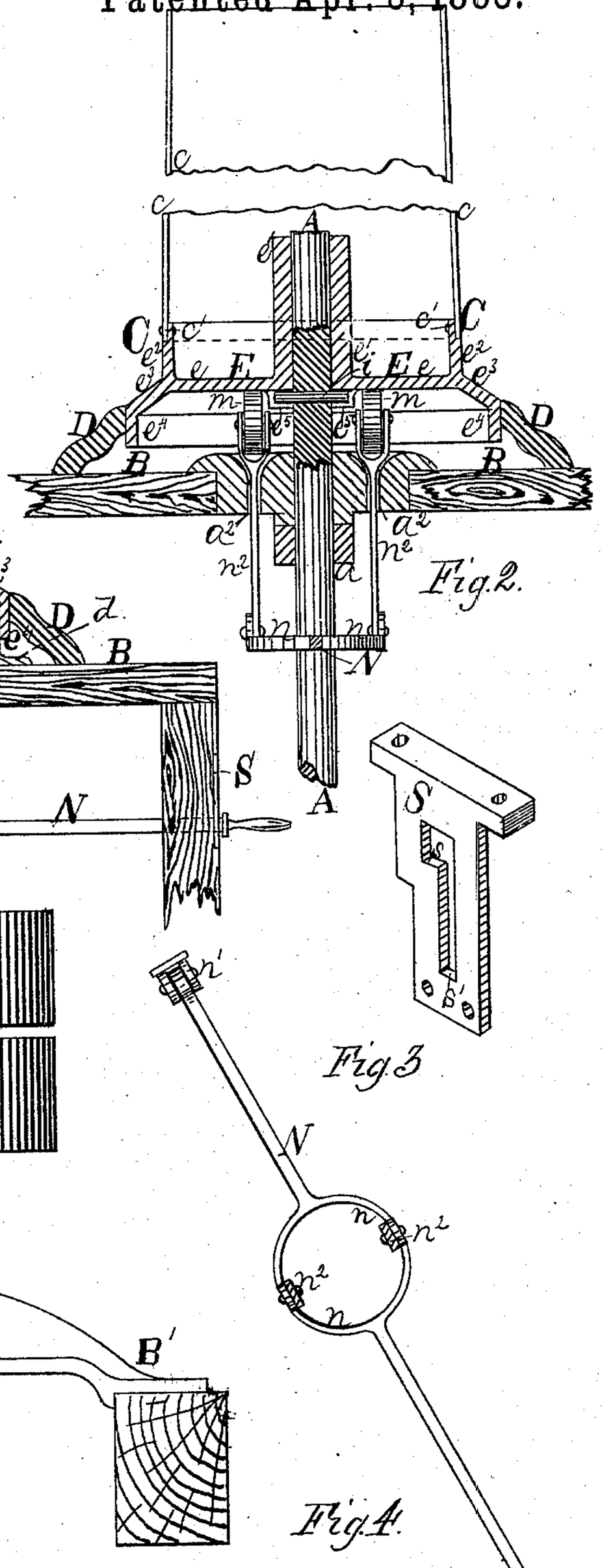

Fig. 2.

Fig. 3

Fig. 4.

Fig. 5.

Witnesses.
C. L. Parker
R. N. Whittlesey

Inventor. John Lynam

By Attorney. George H. Christy.

UNITED STATES PATENT OFFICE.

JOHN LYNAM, OF CLEVELAND, OHIO.

WIRE-REELING MACHINE.

SPECIFICATION forming part of Letters Patent No. 274,953, dated April 3, 1883.

Application filed November 29, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN LYNAM, a citizen of the United States, residing at Cleveland, county of Cuyahoga, State of Ohio, have invented or discovered a new and useful Improvement in Wire-Reeling Machines; and I do hereby declare the following to be a full, clear, concise, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—like letters indicating like parts—

Figure 1 is a vertical sectional view, partly in elevation, of my improved winding-drum. Fig. 2 is a similar view of a part of the device, but having its section taken at right angles to the plane of section, Fig. 1. Fig. 3 is a perspective view of the catch-iron employed for holding the gear-shifting lever. Fig. 4 is a plan view of the gear-shifting lever; and Fig. 5 is a view of the central part of the bottom face of the drum, showing the means employed for making gear or power connection between the drum and its driving-shaft.

My invention relates to certain improvements in mechanism for reeling wire; and it consists, in general terms, of a rotary winding-drum mounted on a vertical shaft and longitudinally movable thereon, combined with a supporting-table and an extended rim and band between the table and drum for preventing loose ends of wire from catching and winding upon the shaft, as hereinafter more fully described and claimed.

In the drawings, A represents a vertical driving-shaft, mounted by step a' and bearing a upon a frame, table, or other suitable support, B B′. Rotary motion is given the shaft by tight and loose pulleys A′ A′. Upon the upper end of the shaft is mounted a winding-drum, C, consisting of end casting, E, and cylindrical barrel c. The casting E, which forms the base of the drum, consists of a plate or disk, e, a central hub, e', adapted to receive the shaft axially, a body-rim, e^2, to which the barrel c is secured, as at c', an outwardly and downwardly inclined rim, e^3, which forms the head or end flange of the drum, and vertical rim-extension e^4, which fits and moves within an annular base ring, D, which latter is secured to the top of frame B. This ring serves the double purpose of an outside bearing for the drum, and with the extended hub e' forms a firm support as against horizontal strain, and also, with the head E, completely incloses the shaft above the table B, and prevents possibility of winding free wire upon the shaft, which would be liable to occur if an opening were left between the table and head of the drum. Instead, however, of a ring, D, outside of the base of the drum, an equivalent ring or band, D′, (see Fig. 1,) may be employed, which is secured to the table in any convenient way, as by flange d, and, extending upward within the rim e^4, bears upon its inner surface, and thus prevents wire from reaching the shaft, and also aids in supporting the drum or winding-block, as before described. Either one or both of these rings D D′ may be used, as desired. Power connection is made between the drum and shaft by means of lugs e^5, formed on the lower end of hub e', on opposite sides of the shaft-passage, and a pin, i, which is passed through the shaft with its ends projecting. By lowering the drum the ends of this pin pass between the lugs e^5, and the rotary motion of the shaft will be communicated to the drum. By raising the drum the lugs will be disengaged and the drum will be stationary, while the shaft may continue to rotate. This vertical movement of the drum is made on and guided by the shaft and hub, and also by the rings D or D′ and rim e^4, the latter being of sufficient depth to permit of the requisite range of motion without lifting out of the ring. Vertical movement is imparted to the drum by means of lever N, (see Fig. 4,) which is pivoted at one end to the frame, as at n', encircles the shaft by a central band or hoop, n, and at its free end passes through the front side of the frame and through a slotted catch-plate, S, (see Fig. 3,) which is fastened to the frame. From either side of the hoop n arms n^2 are extended upward through guides a^2 a^2 in the top of the frame, and in the upper forked ends of these arms are mounted rollers m m, which bear against the under face of the drum-head, and thereby form an anti-friction bearing or support. By raising the free end of the lever the rollers m will press against and raise the drum out of engagement with the pin i, and by passing the lever laterally into the notch or catch s of plate S the drum will be supported on the rollers. By lowering the lever the drum will be lowered into engage-

ment with the pin, and in this position the free end of the lever may rest upon the bottom *s'* of the slot in the catch-plate, which may be adjusted with reference to supporting the weight of the drum upon the rollers when the drum is in gear, though in this position the drum may rest upon the pin, if preferred.

By the construction described I secure stability in the drum-mounting, convenience in putting the drum into and out of power connection with the shaft, an efficient guard to prevent wire from winding upon the shaft, and simplicity and cheapness of construction.

I claim herein as my invention—

1. In a wire-reeling machine, the combination of winding-drum C, having a rim, e^4, extending from the periphery of its head, ring D or its described equivalent, table B, and rotary driving-shaft A, substantially as and for the purposes set forth.

2. The combination of vertical winding-barrel *c*, head-casting E, having elongated axial hub *e'* and rim e^4, extending downward from its periphery, annular base-ring D, rotary driving-shaft A, and table B, substantially as described, whereby the shaft is inclosed above the table and the winding-drum is supported as against horizontal strain.

3. The rotary and endwise-movable winding-drum C, having a rim-extension, e^4, on its base end, in combination with table B and an annular band or ring secured to the table and adapted to bear upon the side face of such rim, substantially as and for the purposes set forth.

In testimony whereof I have hereunto set my hand.

JOHN LYNAM.

Witnesses:
M. H. MASON,
GEO. D. DEAN.