

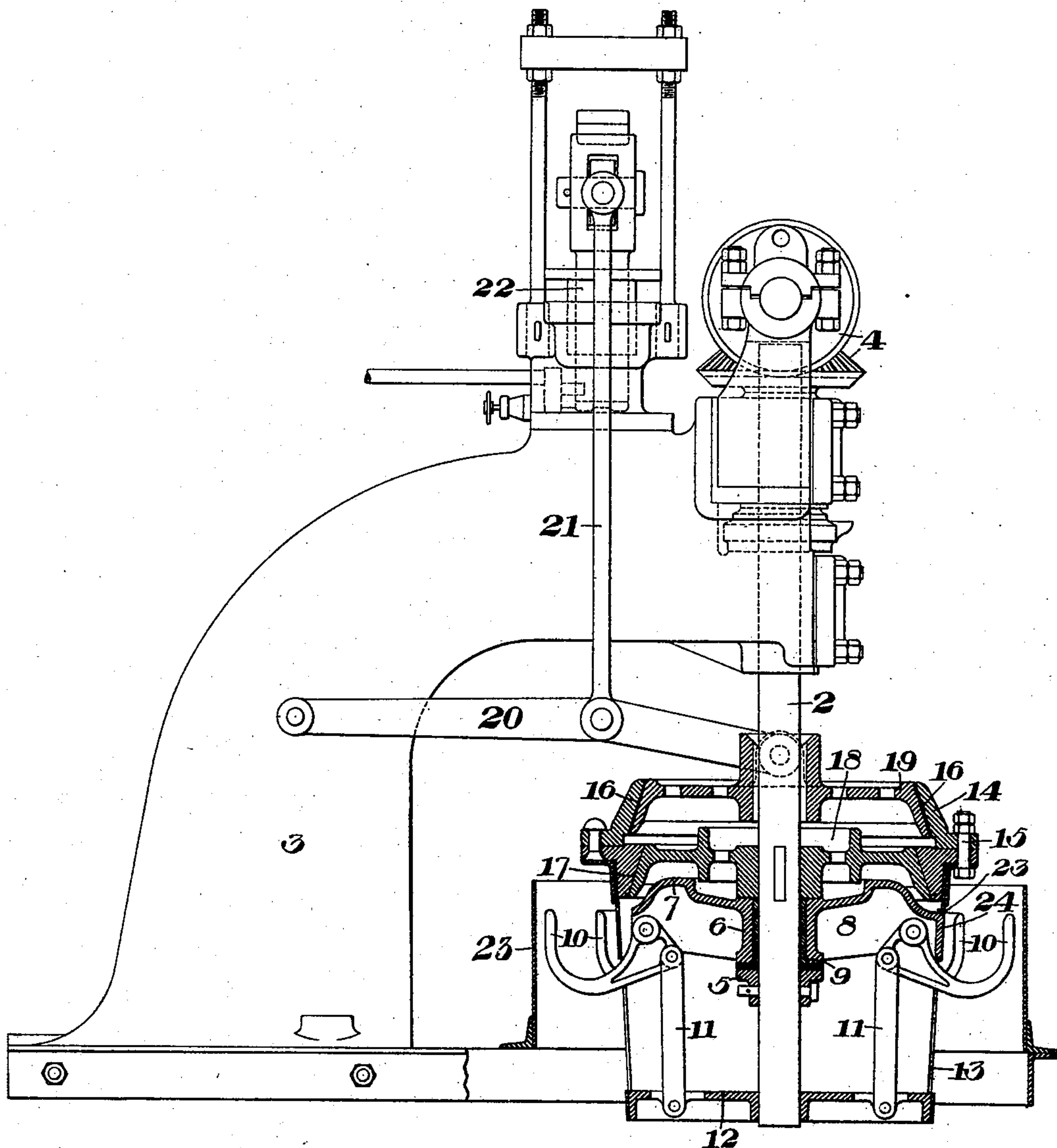
No. 636,243.

Patented Nov. 7, 1899.

J. C. CROMWELL.
ROD REEL.

(Application filed Dec. 10, 1898.)

(No Model.)



WITNESSES

Warren W. Swartz
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INVENTOR

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UNITED STATES PATENT OFFICE.

JOHN C. CROMWELL, OF CLEVELAND, OHIO, ASSIGNOR OF ONE-HALF TO
WILLIAM GARRETT, OF SAME PLACE.

ROD-REEL.

SPECIFICATION forming part of Letters Patent No. 636,243, dated November 7, 1899.

Application filed December 10, 1898. Serial No. 698,834. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. CROMWELL, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and useful Improvement in Rod-Reels, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification, in which the figure is a side elevation, partly in section, of my improved reel.

My invention relates to wire-rod reels, and more especially to the reel set forth in my co-pending application, Serial No. 694,392, dated October 24, 1898; and its object is to simplify and improve the structure of the reel and the actuating connections for operating the hooked fingers within which the coil is formed.

In the drawing, 2 represents a vertical shaft carried in the curved standard 3 and driven by suitable bevel-gear connections 4 at its upper end. Near the lower end of the shaft is provided a ring 5, which is pinned or otherwise secured thereto and upon which rests a sleeve 6, having formed integral therewith an annular plate 7, provided with radial web portions 8. A brass sleeve 9, with a base-flange, as shown, is preferably provided between the sleeve 6 and the shaft and upon which the driving friction-wheel rests. Between the web portions 8 of the plate 7 are pivoted a series of swinging hooks 10, the laterally-projecting shank portions of which are connected by depending links 11 with a disk 12, which is arranged to slide vertically upon the shaft. The disk or plate 12 is secured to the lower end of a depending annular shield-plate 13, having a series of vertical slots through which the hook-fingers project. One of these slots is extended upwardly, as shown at 23, to receive a projection 24 upon the plate 7, so that rotation of the shield will positively rotate the plate 7 and the hook-fingers. The upper end of the shield-plate is secured to a friction drum or ring 14, consisting of two horizontally-divided parts secured together by suitable bolts 15 and provided with two inner beveled or inclined friction-surfaces 16 and 17.

A friction-wheel 18, having its outer face inclined to fit against the surface 17, is keyed to the shaft 2, this friction-wheel driving the

reel whenever the friction-drum is lowered thereon. To thus raise and lower the friction-drum, I provide a brake-wheel 19, having an inclined outer face arranged to contact with the face 14 of the drum, the hub of this brake-wheel having lugs pivotally connected with a lever 20, which is actuated by link connections 21 with the plunger of a hydraulic cylinder 22, mounted upon the stand-ard 3.

23' is an outer shield which incloses and projects above the hook-shaped fingers when they are in position to receive the coil.

The operation is as follows: The shaft being constantly driven, when the wire rod is to be coiled the friction-drum 14 is lowered into contact with the friction-wheel 18, and the hooks being swung upwardly and outwardly into their outward position, through their link connections with the shield-plate, are rotated with the friction-drum. When the rod is coiled, fluid being supplied to the motor 22, the brake-wheel 19 is lifted, and the friction-drum is thereby lifted away from the driving friction-wheel 18, the stationary brake-wheel thus slowing down and stopping the motion of the drum. As the friction-drum is lifted the hooks are automatically retracted by the link connection with the shield-plate.

The advantages of my invention result from the simple and effective connections between the friction-drum and the hooks, whereby the hooks are moved into and out of their operative position, and from the compactness of the arrangement and its not being liable to get out of order.

Many changes may be made in the form and arrangement of the parts without departing from my invention, since

I claim—

1. A rod-reel having a friction-wheel secured to a driven shaft, a movable friction-drum arranged to contact with the wheel and be driven thereby, a depending shield secured to the drum, a plate carrying a series of swinging fingers movable through slots in the shield, and links connecting the fingers to the lower portion of the shield; substantially as described.

2. A rod-reel having a friction-wheel se-

cured to a driven shaft, a friction-drum arranged to contact with the wheel and be driven thereby, a friction brake-wheel arranged to contact with the drum and raise and lower it, 5 a depending shield secured to the drum, a plate surrounding the shaft and having a series of pivoted hook-shaped fingers movable through slots in the shield, and depending links connecting the fingers to a disk secured 10 within the lower end of the shield; substantially as described.

3. A rod-reel, having a friction-wheel secured to a driven shaft, a movable friction-

drum arranged to contact with and be driven by said wheel, swinging hook-shaped fingers 15 arranged to receive the rod and having actuating connections with the friction-drum, and a stationary open-top outer shield inclosing the fingers; substantially as described.

In testimony whereof I have hereunto set 20 my hand.

JOHN C. CROMWELL.

Witnesses:

T. S. DUNLAP,
A. W. MASSEY.