

No. 611,208.

Patented Sept. 20, 1898.

V. D. & H. R. ROOD.

MACHINE FOR APPLYING COMPOUNDS FOR PROTECTING PILING, TIMBERS, &c.

(Application filed July 9, 1897.)

(No Model.)

3 Sheets—Sheet 1.

Fig. 1.

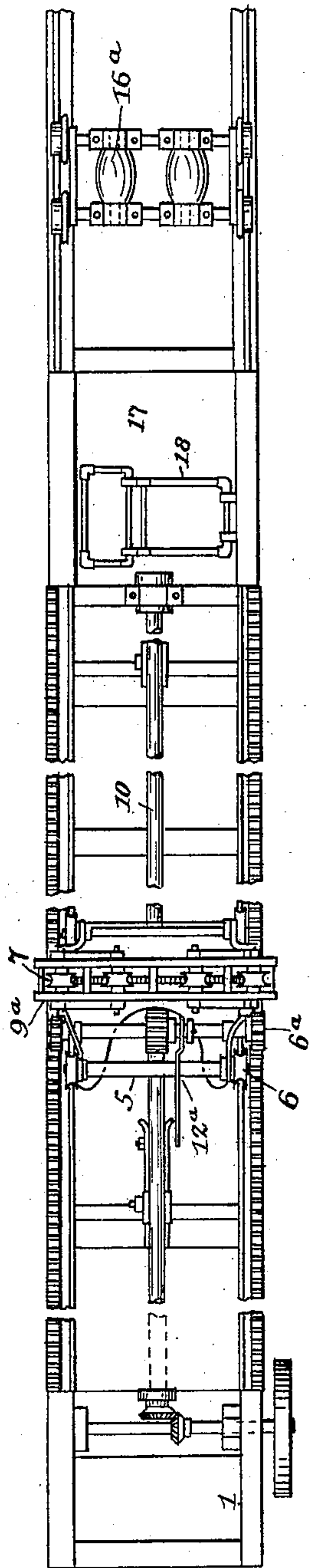
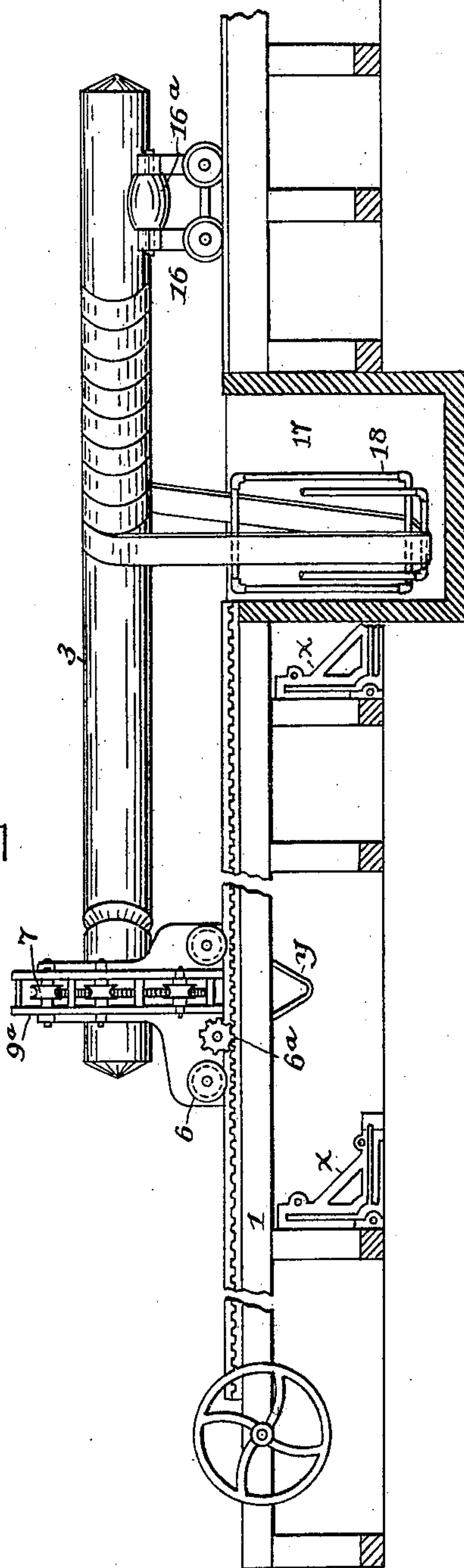


Fig. 2.



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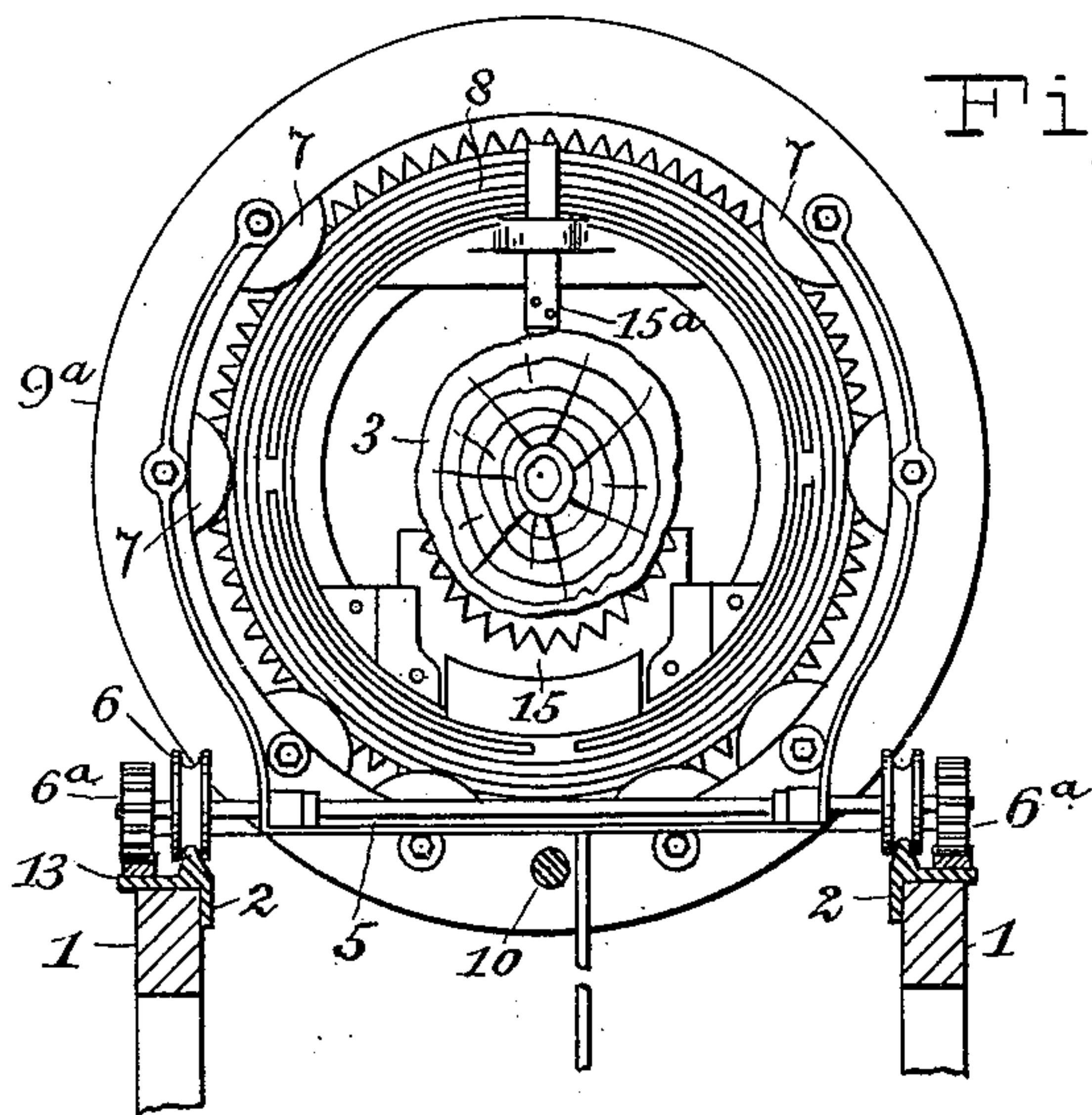


Fig. 3.

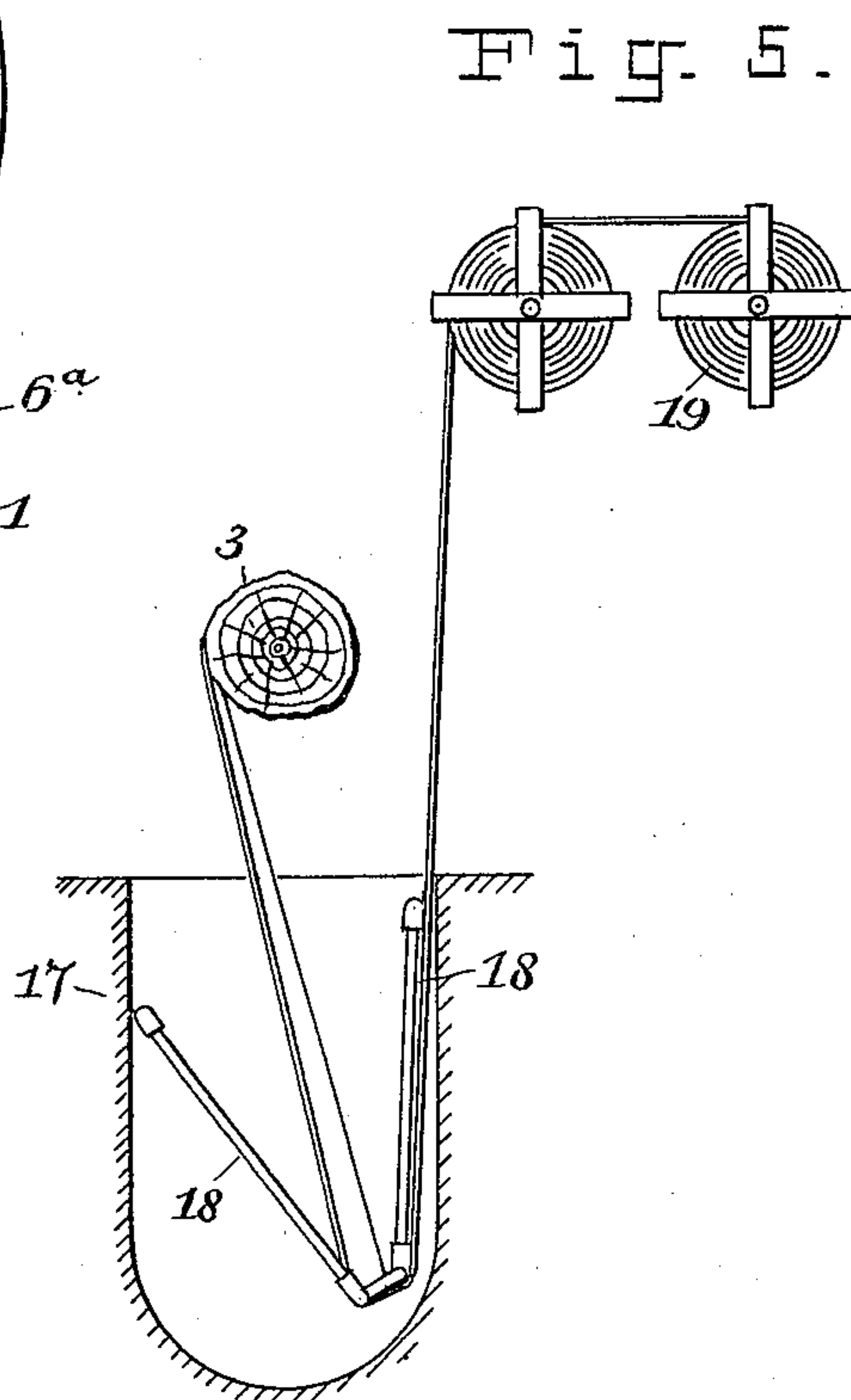


Fig. 5.

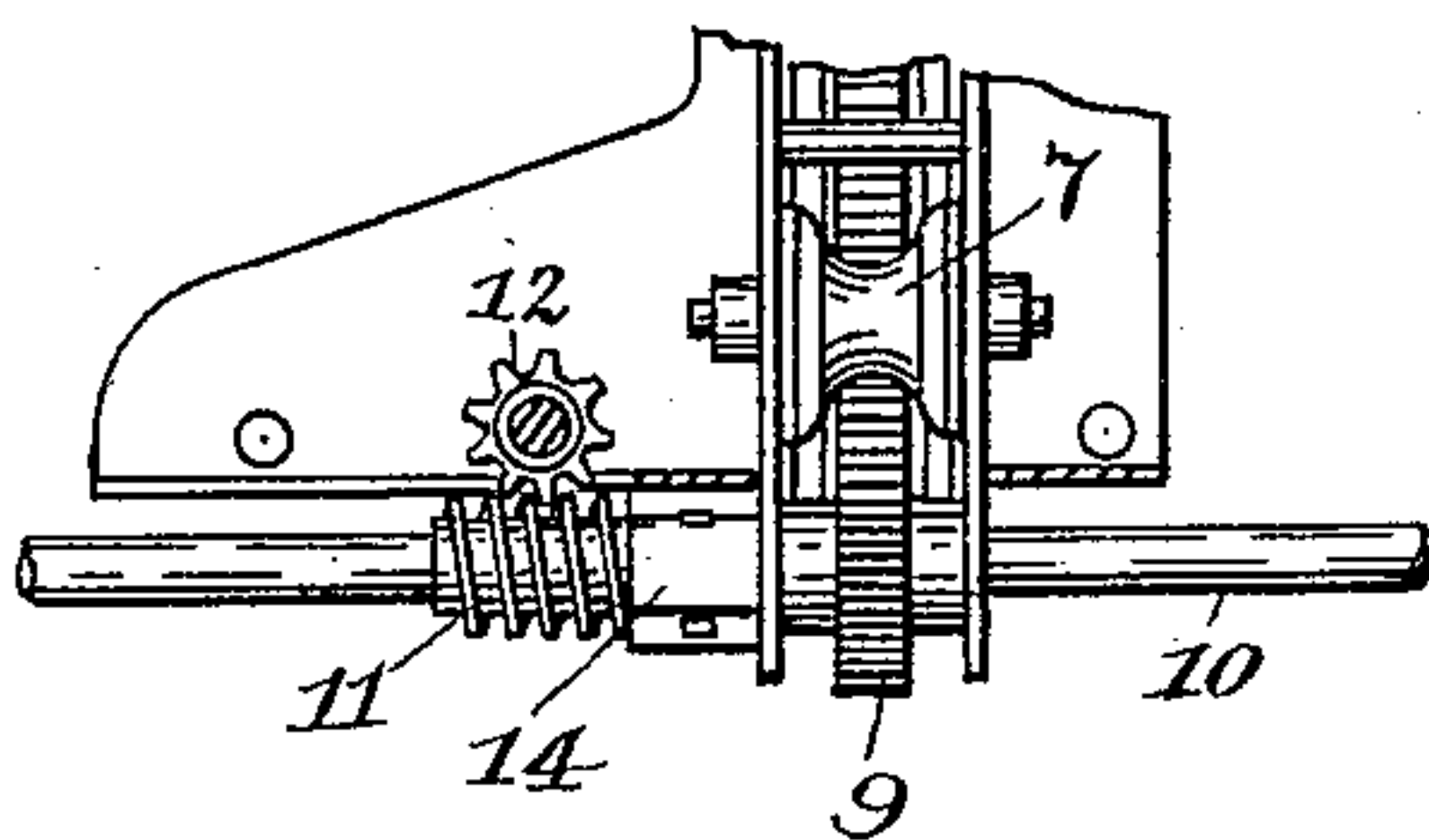


Fig. 4.

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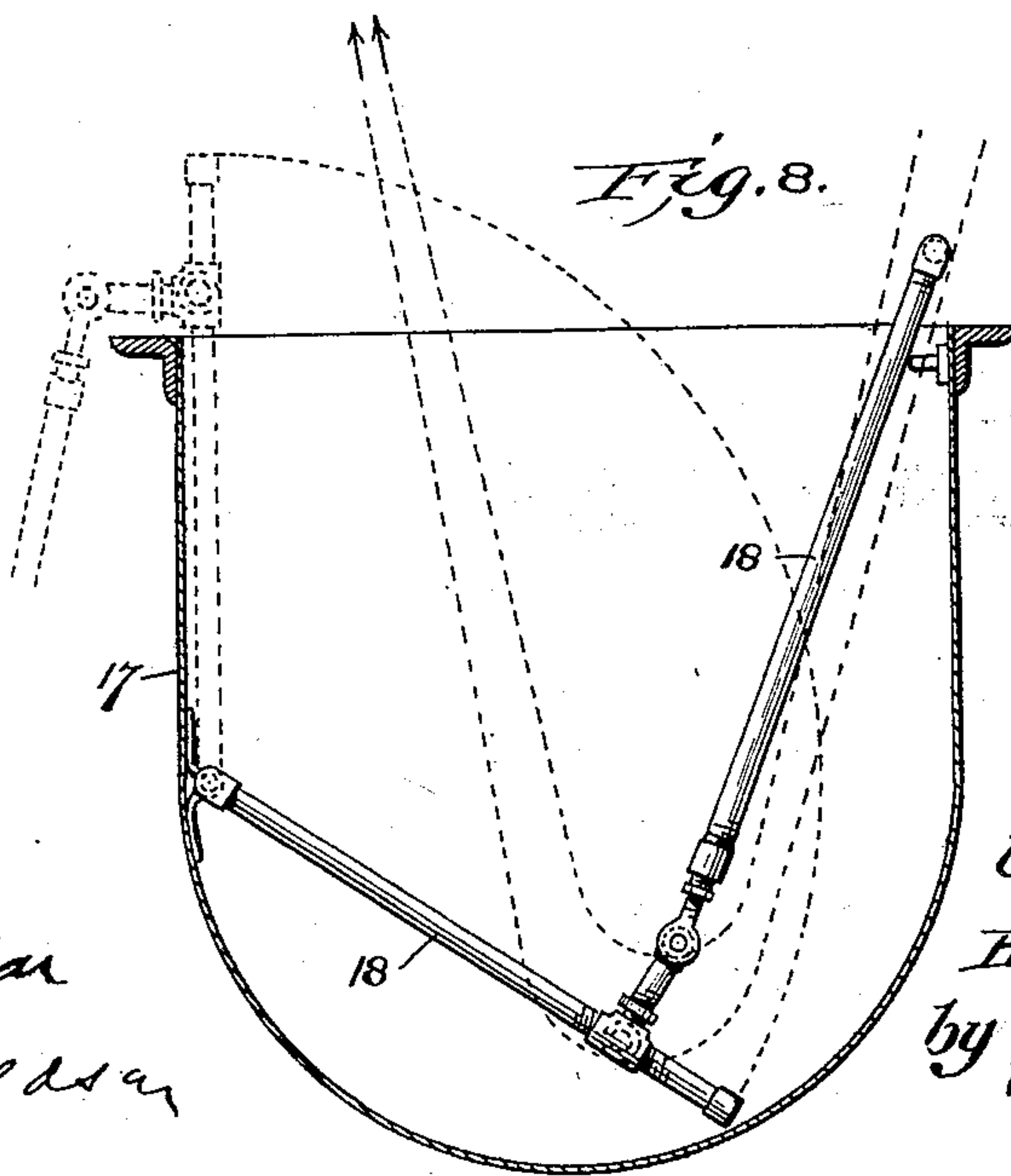
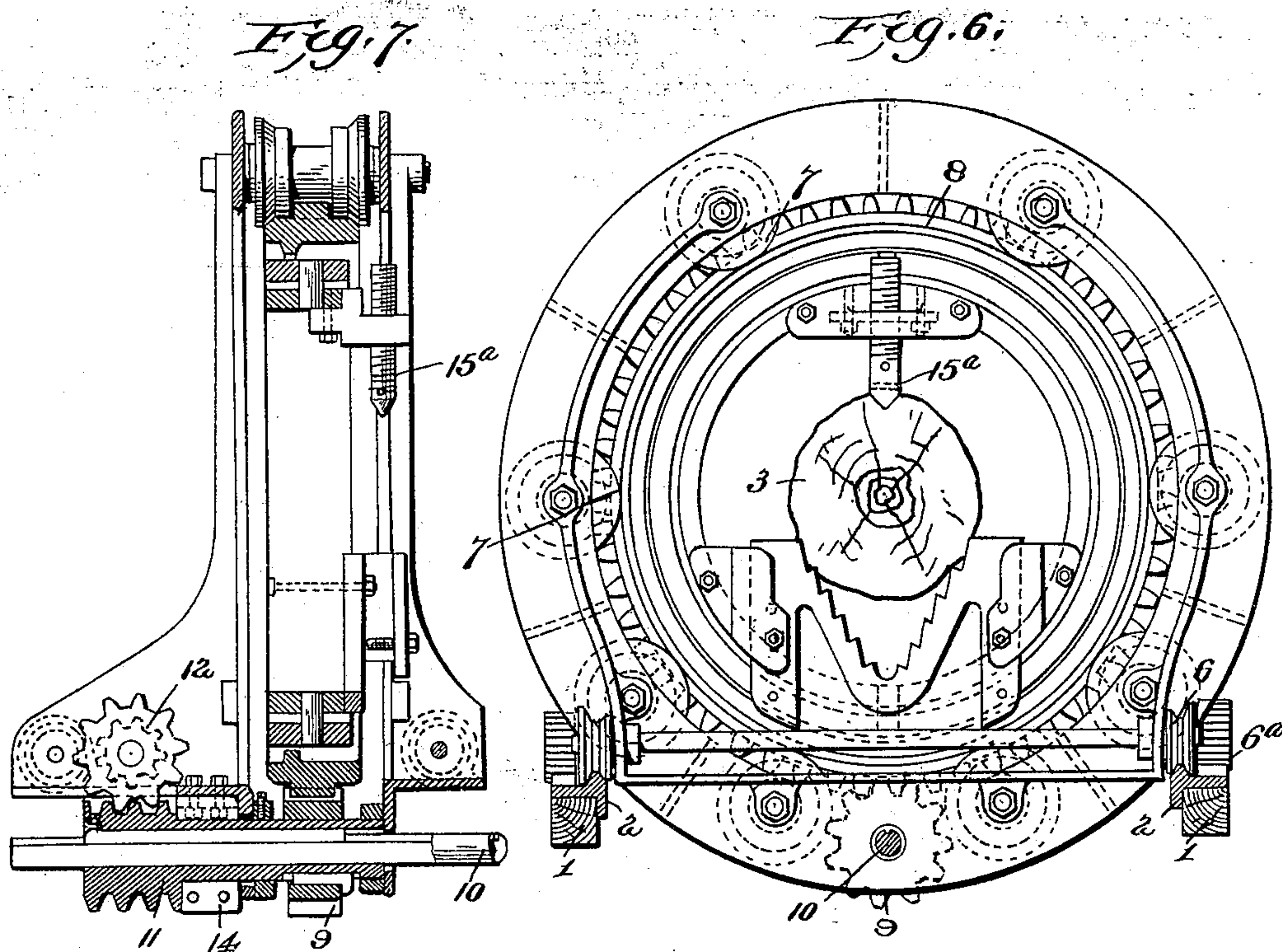
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3 Sheets—Sheet 3.



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UNITED STATES PATENT OFFICE.

VERNON D. ROOD AND HUGH R. ROOD, OF SAN DIEGO, CALIFORNIA.

MACHINE FOR APPLYING COMPOUNDS FOR PROTECTING PILING, TIMBERS, &c.

SPECIFICATION forming part of Letters Patent No. 611,208, dated September 20, 1898.

Application filed July 9, 1897. Serial No. 643,978. (No model.)

To all whom it may concern:

Be it known that we, VERNON D. ROOD and HUGH R. ROOD, citizens of the United States, and residents of San Diego, county of San Diego, State of California, have invented an improved machine for applying compounds for protecting piling, timbers, and other material from the destructive action of sea-insects, rust, and erosion, of which the following is a full, clear, and exact specification.

Our said invention relates to a machine for applying compounds for protecting piling, timbers, or other material, such as water-conduits made from wood or metal, from the destructive action of sea-insects when the timbers are exposed in salt water or from decay and rust caused by the action of the elements when exposed in the air, earth, or water.

We have illustrated our invention in the accompanying drawings, in which—

Figure 1 is a plan view of the machine or apparatus. Fig. 2 is a side elevation showing the tank in section. Fig. 3 is an enlarged sectional view through the track or way, showing the carrier in elevation. Fig. 4 is a detail view showing the gears for rotating the carrier and giving it its forward movement. Fig. 5 is a detail view of the burlap-reels, showing the burlap passing from the reels over guides within the tank and thence around the pile. Fig. 6 is an enlarged elevation of the carrier with the track shown in section. Fig. 7 is a section on line 7 7 of Fig. 6, and Fig. 8 is a detail showing the removable guides for the burlap.

In the drawings the numeral 1 designates a suitable track-supporting frame, upon which are mounted the rails 2, upon which the carrier and trolley are designed to run. The pile or other timber 3 is supported at one end upon the trolley and at the other end by the carrier and is given both a longitudinal and a rotary movement in order that a strip of burlap may be wound around the pile in the manner hereinafter described. The carrier by which this rotary and longitudinal movement is secured is shown at 4, mounted upon axles 5, provided with wheels 6, which travel upon the rails before referred to. This carrier consists of a circular or ring-shaped

tion-rollers 7. Within the frame and guided by these rollers, which have channeled faces, as shown in Fig. 4, is a second frame or carrier proper, 8, which is adapted to receive and hold one end of the pile or similar article to be coated. The edge of this inner frame 8 is provided upon its periphery with teeth, forming a circular rack, which is engaged by a gear-wheel 9, carried by a longitudinal shaft 10, extending centrally of the track, and to which rotary motion is imparted by any suitable connections—such, for instance, as the transverse shaft and beveled gears shown in Fig. 1, left-hand end. At the same time that the inner frame and pile are rotated they are moved longitudinally by means of a worm 11, engaging a worm-wheel 12 on one of the carrier-axles 5 and adapted to be clutched thereto by the clutch 12^a. The carrier-axle is extended through the wheel 6 and carries at each end a gear-wheel 6^a, which meshes with a rack 13, carried by the rail. It will thus be seen that as the rotating frame is turned by the shaft and gear the whole carrier is moved slowly forward through the worm and gears and stationary racks just described. The gear 9 and the worm are splined to the shaft, being held against longitudinal movement independent of the carrier by a bracket 14, depending from the carrier, and also by the stationary carrier-frame, through the lower portion of which the shaft passes.

The end of the pile or other article to be coated is held within the rotating frame by means of a stationary corrugated jaw 15 and a movable holding-piece 15^a, as shown more clearly in Fig. 3. The opposite end of the pile is supported upon a trolley 16, which consists simply of a frame mounted upon wheels running upon the track and provided with rollers 16^a, which support the end of the pile and at the same time permit it to turn.

Approximately centrally of the track is located a tank 17, which may be heated in any suitable manner and is adapted to contain a suitable preservative compound brought by the heat to a semiliquid condition. Removable guides 18 are located within the tank, and strips of burlap pass from the burlap-reels 19 around the guides within the tank,

and thence up to the pile, the strips being preferably fed so as to overlap and break joints on the pile.

From the foregoing description the operation of the apparatus will be clearly understood, but may be briefly stated as follows: The pile or other article to be treated has one end secured within the carrier and the other end rested upon the trolley. The guides are raised out of the liquid mass, and the burlap strips are passed through the guides and securely fastened at a designated point to the material to be protected. The guides are then forced down into the compound contained in the tank and securely fixed in place, and when power is supplied and the machine set in motion the rotary motion causes the burlap to be taken up by the pile after it has first passed through the liquid preservative compound, and the longitudinal movement is sufficient to cause the strips to be smoothly and evenly wound around the pile for the desired distance. The preservative compound causes the strips to adhere closely to the pile and forms when cool a solid impervious and resistance case or bandage.

We claim as our invention—

1. In combination, the track, the shaft extending longitudinally thereof with means for rotating the same, the carrier for the pile operated from the shaft and adapted both to rotate the pile and move the same longitudinally of the track, and a device for feeding a coating-strip to said pile, substantially as described.

2. In combination, the track, the longitudinal shaft with means for rotating the same, the carrier-frame mounted to move longitudinally of the track, the pile-carrier rotatably

supported in said frame, connections from the longitudinal shaft to the frame for moving it along the track, connections from said shaft to the rotary carrier for rotating the same, and devices for feeding the coating-strip to the pile, substantially as described.

3. In combination, the track, the carrier-frame movably mounted on said track, the supporting and guiding rollers journaled in said frame, the rotary carrier supported by said rollers, means for simultaneously moving the carrier-frame longitudinally and rotating the carrier, means for clamping the pile within the rotary carrier, and a device for feeding a coating-strip to the pile, substantially as described.

4. In combination the track, the carrier-frame adapted to travel thereon, a stationary rack, a transverse shaft having a gear engaging said rack, a longitudinal driving-shaft having a worm-gear connection with said transverse shaft, a rotary carrier within the carrier-frame, a gear connection between the longitudinal shaft and the rotary carrier for rotating the latter, means for clamping the end of a pile or similar article within the rotary carrier, a support for the opposite end of the pile, and devices for feeding coating-strips to the pile, substantially as described.

In witness whereof we have hereunto set our hands in presence of witnesses.

VERNON D. ROOD.

HUGH R. ROOD.

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