W. WORTMANN.

ELECTRICALLY DRIVEN MACHINE FOR TILLING THE GROUND.

APPLICATION FILED JULY 18, 1912.

1,050,085. Patented Jan. 7, 1913.

Fig. 1

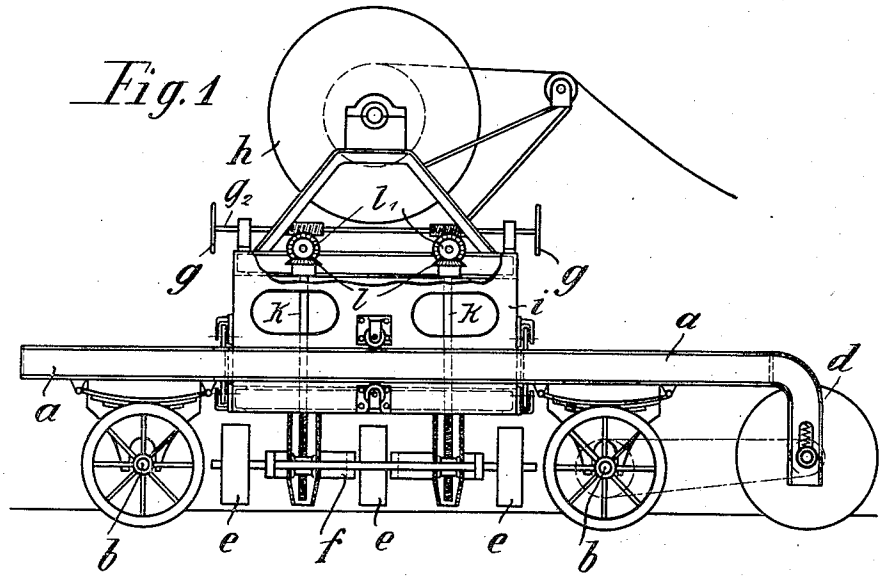
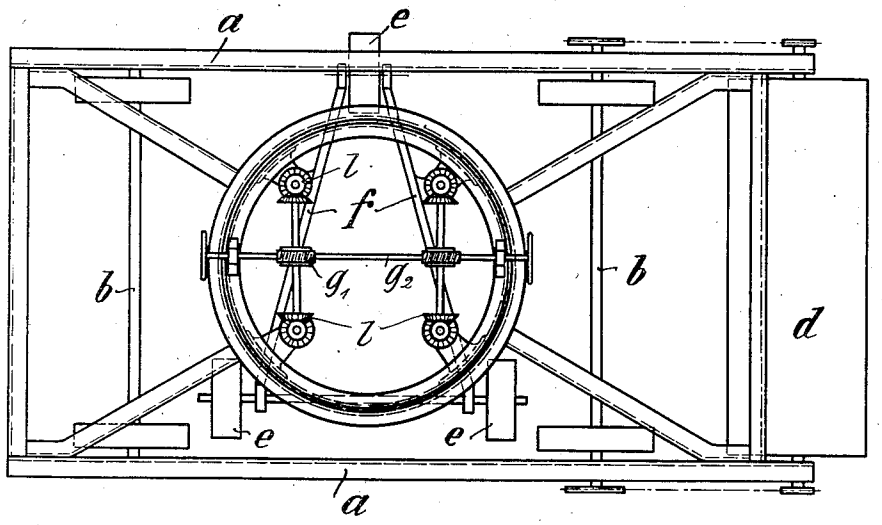


Fig. 2



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WILHELM WORTMANN, OF MAYENCE, GERMANY.

ELECTRICALLY-DRIVEN MACHINE FOR TILLING THE GROUND.

1,050,085. Specification of Letters Patent. Patented Jan. 7, 1913.

Application filed July 18, 1912. Serial No. 710,247.

To all whom it may concern:

Be it known that I, WILHELM WORTMANN, a citizen of the Empire of Germany, and residing at Mayence, Germany, have invented certain new and useful Improvements in Electrically-Driven Machines for Tilling the Ground, of which the following is a specification.

My invention relates to an electrically-driven machine for tilling the ground, the current being supplied by a cable which is wound upon and unwound from the machine.

According to my invention I mount the cable-drum to swivel about a vertical axis in the frame of the truck carrying the operative tools. In this way I attain that the machine together with its tools can turn at the end of the field without the cable-drum moving out of its position. Consequently, when the machine is slued the cable cannot become entangled and can readily unwind without any trouble when going backward.

One illustrative embodiment of my invention is represented by way of example in the accompanying drawing, wherein:—

Figure 1 is an elevation showing a machine of my improved construction, and Fig. 2 is a top plan view thereof after the cable-drum and its supports have been removed.

Referring to the drawing, *a* designates the frame of the truck running on the wheels *b* which are preferably driven by electric motors, not shown. The operative tool is shown as a roller *d*, but hoes, harrows, plowshares or the like may be mounted in the frame instead thereof if desired. *e* designates auxiliary wheels which are journaled in a separate frame *f* carried by the frame *i*, to be hereinafter referred to and while the machine is operating are located so high that they do not contact with the ground. When the machine is to turn and be shifted laterally a distance equal to the breadth of the strip of land which has been worked these auxiliary wheels are lowered and the wheels *b* are relieved. In the illustrative embodiment this is done by means of spindles *k* whose screw-threaded ends are screwed into the frame *f;* the other ends of these spindles carry bevel-gears *l* which mesh with gears *l'* driven by worms *g'* on the spindle g^2 carrying the hand wheels *g*. The arrangement is such that after the auxiliary wheels *e* have been placed on the ground the rest of the machine with the exception of the frame *f* is lifted. The transverse motion of the entire machine can take place on the wheels *e* which rotate in planes displaced 90° relative to those in which the wheels *b* rotate.

The cable-drum *h* is journaled in a frame *i* mounted to swivel in the frame *a*. This drum is for winding up the electric cable paid out during the operation of the machine. The frame *a* together with the tool *d* mounted therein can be slued roundabout the frame *i* of the cable-drum without the latter changing its position.

I claim:—

1. In an electrically-driven machine for tilling the land, the combination with a wheeled truck, of means for winding up and paying out an electric cable mounted to rotate about a vertical axis on the truck and means permitting the change of direction of the truck about said vertical axis.

2. In an electrically-driven machine for tilling the land, the combination with a wheeled truck, of means for winding up and paying out an electric cable mounted on a frame to rotate about a vertical axis on the truck, a wheeled frame vertically adjustable in the first mentioned frame, and means mounted on the first mentioned frame for raising and lowering the wheeled frame, the planes of rotation of the wheels in the frame being normally located at right angles to the planes of rotation of the wheels of the truck.

3. In an electrically-driven machine for tilling the land, the combination with a wheeled truck, of a frame mounted to swivel in the truck, a cable-drum rotatably mounted on the frame, a wheeled frame having wheels normally located at right angles to the wheels of the truck, and manually operated means mounted on the former frame for moving the wheeled frame vertically up and down.

4. In an electrically-driven machine for tilling the land, the combination with a wheeled truck, of a frame mounted to swivel in the truck, a cable-drum rotatably mounted on the frame, a wheeled frame having wheels normally located at right

angles to the wheels of the truck, threaded spindles mounted on the former frame and screwed at one end into the wheeled frame, gears fast on the other ends of the spindles, and gearing provided with hand-wheels meshing with the said gears.

In testimony whereof, I have signed my name to this specification in the presence of two witnesses.

WILHELM WORTMANN.

Witnesses:
JEAN GRUND,
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