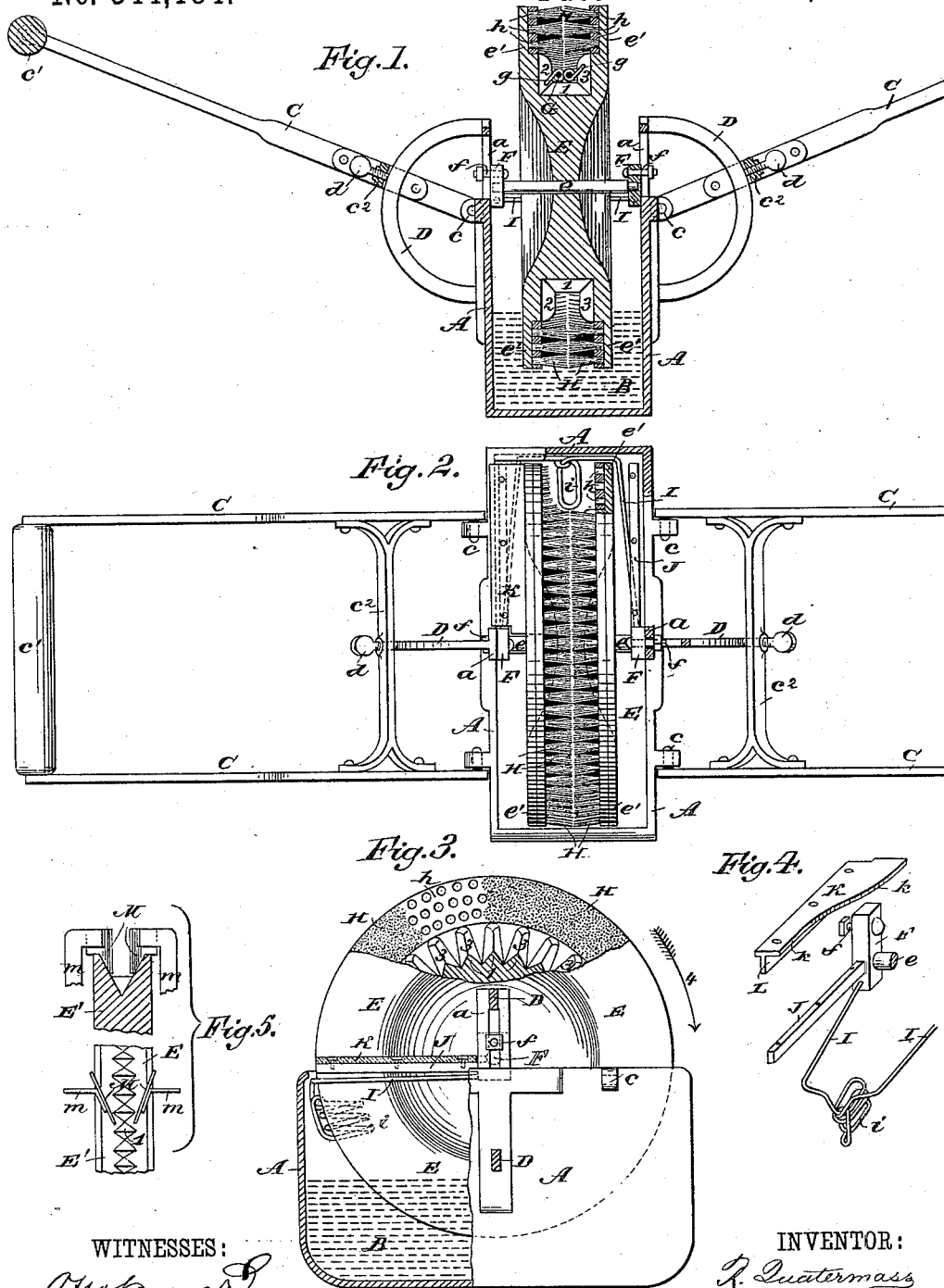


(No Model.)

R. QUATERMAS.
PAINTING MACHINE.

No. 344,134.

Patented June 22, 1886.



WITNESSES:
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REUBEN QUATERMAS, OF MOLINE, KANSAS.

PAINTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 344,134, dated June 22, 1936.

Application filed March 9, 1886. Serial No. 194,569. (No model.)

To all whom it may concern:

Be it known that I, REUBEN QUATERMAS, of Moline, in the county of Elk and State of Kansas, have invented a new and Improved Wire-Painting Machine, of which the following is a full, clear, and exact description.

My invention relates to a machine adapted more especially for painting the wires of barbed-wire fences, but applicable also for painting or coating wires or strands, passing from or to a reel in factories, or stretched between supports in any way.

The invention has for its object to provide a simple inexpensive machine of this character which may be operated effectively with economy of time and labor, and without waste of the paint.

The invention consists in certain novel features of construction and combinations of parts of the wire-painting machine, all as hereinafter fully described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a vertical cross sectional elevation of the wire-painting machine, with one of the handles partly broken away. Fig. 2 is a plan view, partly broken away and in section. Fig. 3 is a side view with parts broken away and in section. Fig. 4 is a perspective view of the brush and wheel wipers by which excess of paint is returned to the paint-vessel, and Fig. 5 represents in vertical sectional elevation and plan view a modified construction of the wheel and wipers at its periphery.

The vessel A, in which the paint B is placed, has preferably the rectangular form in plan view as in Fig. 2, and to opposite sides of vessel A there are pivoted at *c c* the handles C C, which consist, preferably, of U-shaped metal frames, having a hand-grasp, *c'*, on the cross-bar, and provided also with a cross-bar, *c''*, into which is threaded a set-screw, *d*, which may be turned in against a semicircular bar, D, ranging vertically and connected at its lower end to the vessel A, or to a metal plate thereon, and at its upper end to a slotted bar or lug, *a*, fixed to and rising from the paint-vessel. With this construction the handles C C, at opposite sides of the paint-vessel A may

be raised or lowered, and be held in any desired position by the set-screws for holding the vessel A higher or lower, as the height of the wire being painted by the rotating flanged wheel E may require.

The wheel E is journaled by its shaft *e* in opposite bearing-blocks, F F, which are held to the lugs *a a* on frame A by bolts *f f*, which pass through slots of the lugs, thereby allowing the wheel E to be set higher or lower in the vessel A, as the quantity of paint therein shall require.

The periphery of the main body of the wheel E is grooved rectangularly, and at the base of this groove there are fixed a series of spurs or teeth, 1, and next the ends of the teeth 1 at opposite sides of the groove there are fixed the series of spurs or teeth 2 3, respectively, the teeth 2 3 being separated sufficiently to allow the passage of a barbed wire, G, between their points, while allowing the barbs *g* of the wire to catch in the teeth 1 2 3, and thereby rotate the wheel E in the paint-vessel A. Beyond the teeth 1 2 3, forming the corrugated periphery of the wheel E, said wheel has opposite side flanges, *e' e'*, to the inner faces of which are fixed the annular brushes H H, the blocks *h h* of which are made in sections readily attached by screws to the flanges. The opposite brushes may nearly touch each other, as shown in Figs. 1 and 2. To the opposite wheel-bearing blocks F F there are fixed the extremities of an elastic wire, I, the central part or cross-bar of which crosses the end of the paint-vessel A, and at its central part is bent into a series of elongated coils, forming a comb, as at *i*, which enters between the flexible bristles of the brushes, and thereby the surplus paint carried upward by the brushes will be wiped from them back into the paint-vessel A as the wheel E is rotated in direction of the arrow 4 by contact with the wire being painted. At one side of each bearing-block F there is fixed a bar, J, which projects toward the front of the machine, and to this bar there is held by screws or nails the rubber wiper K, the inner edge, *k*, of which is shaped to conform to the adjacent face of the wheel E, and each wiper K has a pendent lip, L, fixed to it for its whole length.

The wipers K K remove the paint from the sides of the wheel, and the paint flows underneath the wipers until it meets their lips L, which direct the paint from the wipers into the vessel A; hence the paint will not be wasted by adhering to the sides of the wheel, or by being thrown from the vessel by centrifugal force as the wheel revolves.

As the brush, comb, or wiper I i and the opposite wheel-wipers, K L K L are all connected with the bearing-blocks F, the wipers will rise and fall with the wheel as it is adjusted vertically to accommodate the quantity of paint in the vessel A.

The operation is as follows: After the handles C C have been adjusted so that two persons carrying the machine may conveniently hold it up to a fence-wire, G, the operators will simply walk along the fence, one at each side of it, and the friction of the wire on the toothed periphery 1 2 3 of the wheel E will revolve the wheel in the vessel A and through the paint B therein, and the brushes H H will thoroughly paint the wire, as the surplus paint is carried from them and the outside of the wheel by the wipers I i and K L. Should the bristles of the brushes become set or inclined to one side the brush-wheel may be reversed in its bearings, so as to operate the other way against the wipers.

The brushes H H are not essential in painting the wire by the use of a flanged wheel rotated by contact with the wire, as a wheel, E', Fig. 5, having a V-shaped peripheral groove provided with spurs or teeth 1 may be used, in which case I will provide the wipers M M, which are fixed to standards m m, attached to and rising from the bearing-blocks F F, and whereby these wipers are supported diagonally at the top of the wheel against the opposite inclined side walls of the V shaped groove, and act thereon to wipe the paint carried up by the periphery of the wheel E' down into the angle of the groove or next the teeth 1, and thereby insure the thorough coating of the wire with paint as the wheel is moved along and rotated by and beneath the wire.

A machine made substantially as above described, but without the handles C C, may be fixed where wire passing from one reel to another over the wheel may be painted by contact with the flanged wheel or brushes thereon, as will readily be understood.

Fence-wires may be painted thoroughly as rapidly as two persons carrying the machine would walk, and with little or no waste of paint, and with great economy of time and labor as compared with the painting of the wires with a brush operated directly by hand.

Should the fence-wires be too closely together to admit of carrying the machine upright, the machine may be inclined or canted over to one side while the paint-wheel is acting on each wire, as will readily be understood.

Where the fence-wires cross the fence-posts they will be painted by a hand-brush in the usual way.

The machine may be applied to various uses—such as coating bridge-rods or rope with tar or paint of any kind.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, in a wire-painting machine, of a paint-vessel and a wheel journaled thereto, and having peripheral flanges provided with spurs or teeth adapted to be engaged by the wire to turn the wheel, substantially as and for the purposes herein set forth.

2. The combination, in a wire-painting machine, of a paint-vessel, a wheel journaled thereto, with its periphery rotating in the paint held in the vessel, and a wiper or wipers removing the surplus paint from the periphery of the wheel, substantially as herein set forth.

3. The combination, in a wire-painting machine, of a paint-vessel, A, a wheel, E, journaled thereto, and provided at its periphery with spurs or teeth, and opposite brushes, H H, outside of the teeth, substantially as and for the purposes herein set forth.

4. The combination, in a wire-painting machine, of a paint-vessel, A, a wheel, E, journaled thereto, and having a grooved periphery, brushes H H, secured thereat, and a wiper acting to remove the surplus paint from the brushes and return it to the vessel A, substantially as herein set forth.

5. The combination, in a wire-painting machine, of a paint-vessel, A, a wheel, E, journaled thereto, and provided with a grooved periphery, brushes H H, secured thereat, and a wiper consisting of a coiled-wire comb, i, supported between the brushes by arms, as at I, substantially as herein set forth.

6. The combination, in a wire-painting machine, of a paint-vessel, A, a wheel, E, journaled thereto to rotate in the paint, and wipers arranged at the side faces of the wheel, to remove the paint therefrom and return it to the vessel A, substantially as herein set forth.

7. The combination, in a wire-painting machine, of a paint-vessel, A, a wheel, E, journaled thereto to rotate in the paint, and wipers, as at K L, arranged at the sides of the wheel, substantially as and for the purpose herein set forth.

8. The combination, in a wire-painting machine, of a paint-vessel, A, a wheel, E, journaled to bearing-blocks F, vertically adjustable on the vessel A, opposite brushes, H H, arranged at the grooved periphery of wheel E, and a wiper, I i, held to blocks F, to rise and fall with the wheel and remove surplus paint from the brushes, substantially as herein set forth.

9. The combination, in a wire-painting machine, of a paint-vessel, A, a wheel, E, journaled to bearing-blocks F, vertically adjustable on vessel A, and wipers, as at K L, attached to blocks F, substantially as and for the purposes herein set forth.

10. The combination, in a wire-painting machine, of a paint-vessel, A, a wheel, E, jour-

naled to bearing-blocks F, vertically adjustable on vessel A, and carrying brushes H H, and wipers I i and K L, held to blocks F, and adapted to remove surplus paint from the brushes and the sides of the wheel, respectively, substantially as herein set forth.

5 11. The combination, in a wire-painting machine, of a paint-vessel, A, a paint-applying wheel journaled thereto, handles, as at C, piv-

oted to vessel A, plates D on vessel A, and a 10 clamping device adapted to hold the handles to plates D at different adjustments, to regulate the operative height of the wheel E, substantially as herein set forth.

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Witnesses:

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