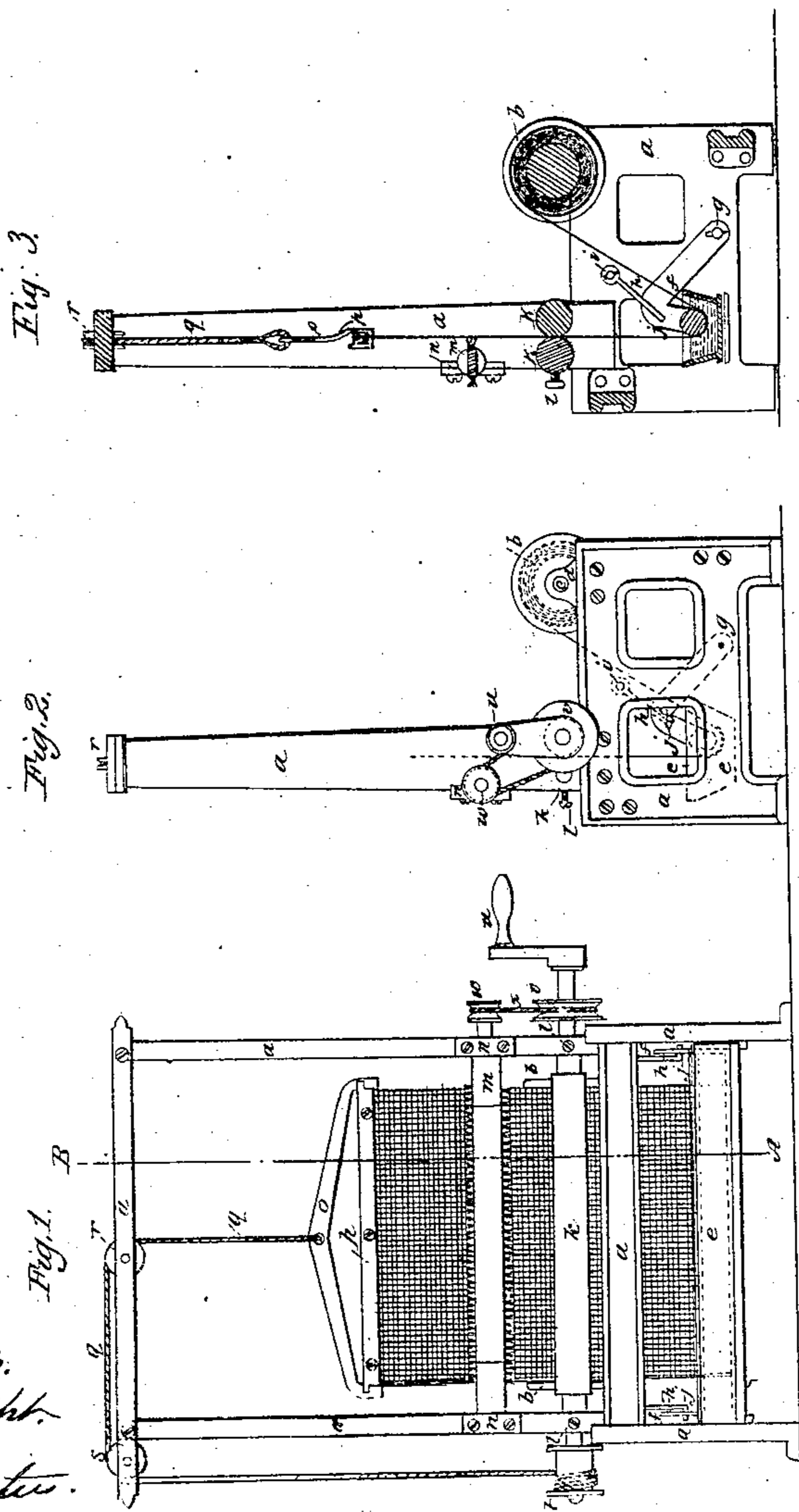


*C. H. Waters*

*Painting Wire Cloth,*

*N<sup>o</sup> 84520.*

*Patented Dec. 1, 1868.*



*Witnesses.*  
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# United States Patent Office.

CHARLES H. WATERS, OF GROTON, MASSACHUSETTS. \*

Letters Patent No. 84,520, dated December 1, 1868

## MACHINE FOR PAINTING WIRE CLOTH.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, CHARLES H. WATERS, of Groton, county of Middlesex, and State of Massachusetts, have invented a new and useful Machine for Painting Wire Cloth; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates to a new mode of painting wire cloth, and consists in the immersion of the cloth in a bath of paint, whereby every portion of it is covered; the use of pressure-rolls, by the aid of which a greater or less quantity of paint may be left upon the cloth, and, at the same time, a perfectly smooth surface attained.

By the use of a drying-room a great quantity of cloth is hung in a small space; good circulation of air is obtained, which aids in drying, and no injury can result to the paint while it is in a soft condition.

The invention consists,

First, in supporting, upon suitable bearings in the machine, a web of wire cloth, wound upon a roll, the end of said cloth being passed under and around a roll suspended in a trough of paint, and thence to the pressure-rolls.

Second, in the use of adjustable pressure-rolls, between which the cloth passes, to graduate the amount of paint to be left upon it.

Third, in the use of a brush or any suitable device to break the films of paint in the meshes, if any, after passing the pressure-rolls.

Fourth, in a mechanism to draw the cloth up, as it is being painted, to any desirable height, corresponding with the length of cloth to be painted, as will be presently described.

In the accompanying drawings, I have represented my improvements, reference being had to the same in the following description, of which—

Figure 1 is a front elevation of the machine.

Figure 2 is an end view of same.

Figure 3 is a vertical section through from A to B.

*a a a* represent the frame-work of machine, supporting all the working parts, of which

*b* is a beam or roll of wire cloth, its journals *c c* resting in the boxes *d d*.

*e* is a trough to contain paint, lying horizontally across the machine, parallel with beam or roll *b*.

*f f* are levers, being pivoted at one end upon the studs *g g* in the frame *a*, and supporting a roll in boxes at the opposite ends, which is immersed in the paint in the paint-trough *e*, all being held in their proper place by the hooks *h h*, secured to the frame *a* by the studs *i i*, and passing through the levers *f f* at the point *j*.

*k k* are two pressure-rolls, whose centres are on a common level, made of any suitable material, which, by the aid of the set-screws *l l*, shall have the effect to

graduate the amount of paint to be left upon the cloth after passing through between them.

*m* is a rotary brushing-device, having two or more brushes, and supported in the frame *a a*, in the boxes *n n*, at a proper distance from the cloth to allow it to brush it sufficiently to break all the films of paint which may fill the meshes, as it passes upward, being drawn by the bow-shaped metallic device *o*, provided with sockets at each end to receive the ends of the clamp *p*, which is secured to the end of the cloth, said device *o* being attached to the rope *q*, which passes upward to the grooved pulley *r*, thence horizontally to the grooved pulley *s*, thence to the flanged pulley *t*, upon shaft of roll *k*.

*u* is a crank upon the end of the pressure-roll shaft, and upon same shaft is a grooved pulley, *v*.

*w* is a grooved pulley upon the shaft of the rotary brush *m*, on the same vertical plane with the pulley *v*, motion being transmitted from *v* to *w* by the round belt *x*.

Having described the manner in which the devices composing my machine are arranged, I will now proceed to describe how the same operate together.

The end of the wire cloth, wound upon the beam or roll *b*, is passed under the roll in the trough of paint *e* by the attendant, and thence to pressure-rolls *k k*, which, being turned by the crank *u*, causes them to seize the cloth and draw it through in a perpendicular direction. The clamp *p* is then attached to the end of the cloth, and placed in the sockets of the lifting-device *o* attached to the rope *q*, which passes over the rolls *r* and *s* to the cylinder *t*, raising the cloth as it passes between the pressure-rolls *k k*.

The grooved roll *v*, secured to the shaft of the roll *k*, receives an endless belt, *x*, which passes around the grooved roll *w*, thereby communicating motion to the brushing-device *m* as the cloth passes by in the process of painting, breaking all films, and leaving the cloth more evenly coated with paint than can possibly be done by hand.

This machine is intended to be placed at the bottom of a drying-room, of any desirable height, the grooved pulleys *r* and *s* being secured at the top, and when the desired length of cloth to be hung in this room has passed through the process of painting, it is cut off and lifted out of the sockets in device *o*, and suspended upon brackets, so arranged as to receive the projecting ends of the clamp *p*.

Having described my improvements,

What I claim as new therein, and desire to secure by Letters Patent, is—

1. The combined arrangement of wire cloth and mechanism, herein described, for painting wire cloth, consisting of a trough of paint in which the wire cloth is immersed, and adjustable pressure-rollers, between which it is passed, and a mechanism by which the cloth,

after being painted, is drawn from the adjustable pressure-rolls, substantially in the manner and for the purpose specified.

2. In connection with the combined arrangement of wire cloth and mechanism, just described, the employment of a drying-room in which the cloth is suspended vertically while being dried, substantially as herein specified.

3. In combination with the adjustable rollers, which determine the quantity of paint applied to the wire cloth, the employment of a brush, by which the meshes are cleared, substantially as described.

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Witnesses:

GEO. F. WRIGHT,  
H. H. WATERS.