2 Sheets—Sheet 1.

W. ROBERTS.

MACHINE FOR PAINTING LATHS.

No. 191,372. Patented May 29, 1877.

FIG 1.

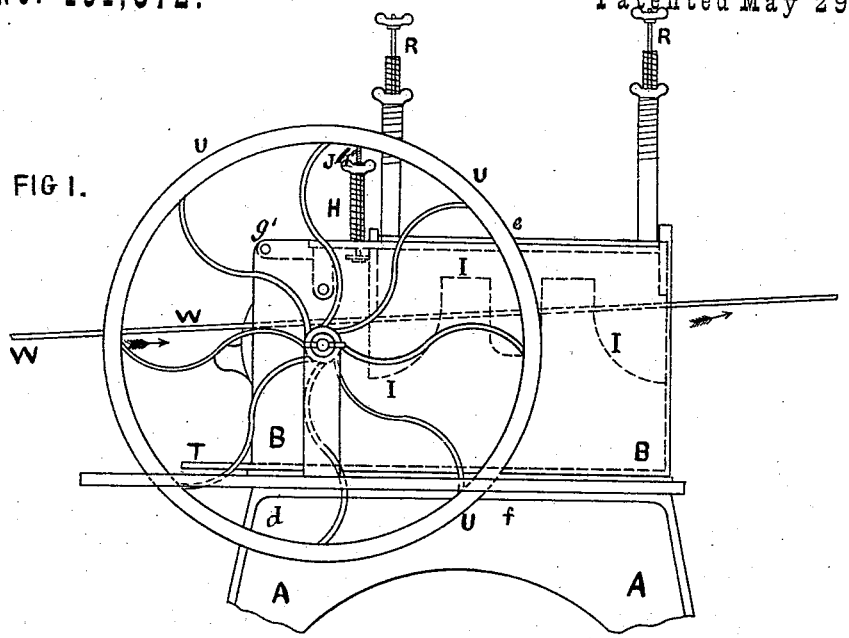


FIG 2.

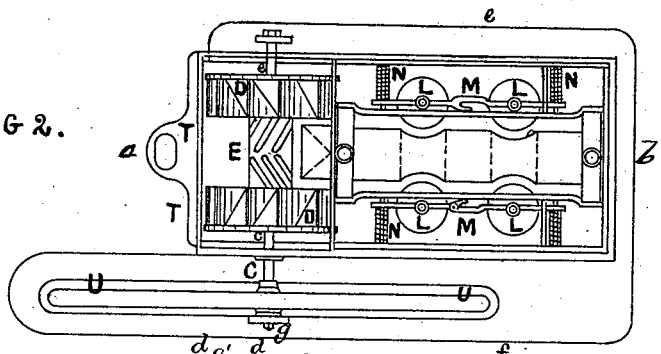
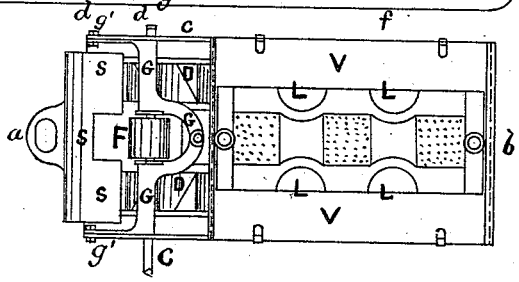


FIG 7.



WITNESSES.

Frederick John Cheesbrough

Odell Hamilton Redmond

INVENTOR.

William Roberts

2 Sheets—Sheet 2.

W. ROBERTS.

MACHINE FOR PAINTING LATHS.

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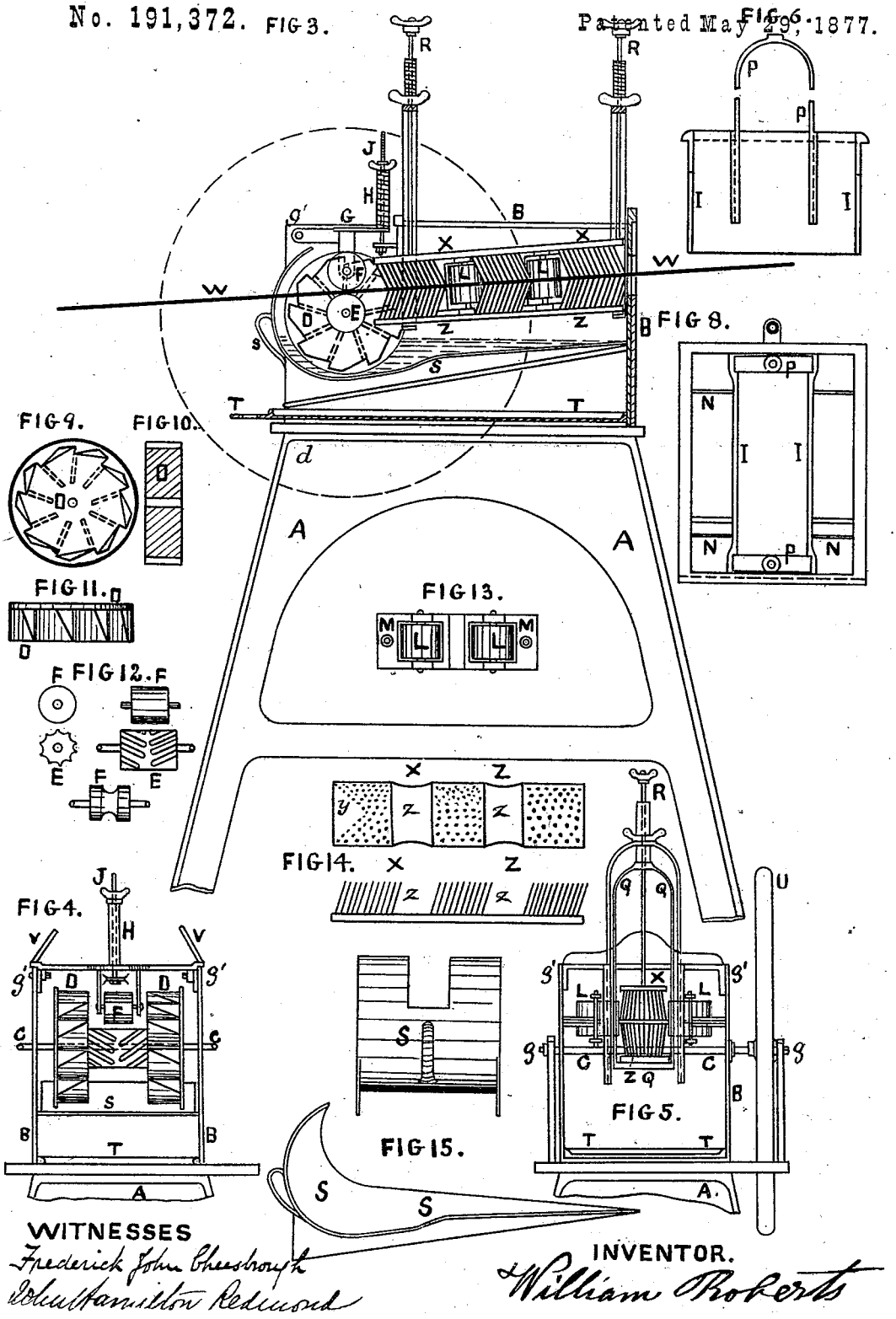

WITNESSES

Frederick John Cheesbrough

John Hamilton Redmond

INVENTOR.

William Roberts

UNITED STATES PATENT OFFICE.

WILLIAM ROBERTS, OF LIVERPOOL, ENGLAND.

IMPROVEMENT IN MACHINES FOR PAINTING LATHS.

Specification forming part of Letters Patent No. **191,372**, dated May 29, 1877; application filed August 11, 1876.

To all whom it may concern:

Be it known that I, WILLIAM ROBERTS, of Liverpool, in the county of Lancaster, in that part of the United Kingdom of Great Britain and Ireland called England, have invented a new and useful Machine for Painting or Coating Laths and other Articles; and I do hereby declare the following to be a full, true, and exact description thereof, reference being had to the accompanying drawings, and to the letters and figures marked thereon.

The object of my invention is to expeditiously cover with paint, varnish, or other liquid coating, shingles, laths, molding, or strips of wood, metal, or other material; also to oil braided or twisted tobacco and oil or tar rope.

My invention is contained in the object represented in the accompanying sheets of drawings, of which—

Figure 1 is a side elevation; Fig. 2, a plan; Fig. 3, a longitudinal vertical section through *a b* of Figs. 2 and 7; Fig. 4, a vertical cross-section through *c d*, Figs. 1, 2, and 3; Fig. 5, a cross-section through E F, Fig. 1; Fig. 6, a cross-section of an inner frame; Fig. 7, a plan of the body of the machine; Fig. 8, a plan of the loose or inner frame; Fig. 9, a side elevation of the paint-elevating wheels, to deliver the paint or other material on the thing to be coated; Fig. 10, transverse section thereof; Fig. 11, edge view of same; Fig. 12, front and end elevation of horizontal feed-rollers, to draw in the thing or substance to be coated, and to spread the coating; Fig. 13, elevation of guide-rollers and frame by which the thing to be coated is held in position and the edges covered; Fig. 14, elevation and plan of lower brush to spread and lay on the paint or other coating, the upper one being similar; Fig. 15, elevation of paint-trough containing the prepared paint or other coating, and in which the wheel D is arranged to work.

It will be observed that to economize space the lower portions of the stand upon which the machine is mounted are shown broken off. (See Figs. 1, 3, 4, and 5.)

Upon reference to the drawings it will be seen that my invention consists of a machine, of which Figs. 1, 2, 3, 4, and 5 are general views, and Figs. 6 to 15, inclusive, are details.

A is a stand or frame, upon which is mounted B, a rectangular box or casing, the front end of which is open, and across which runs C, a transverse shaft carried on the bearing *g g*, and onto which is keyed D, a pair of toothed wheels, used for elevating the paint, varnish, or other coating matter. (Shown in detail at Figs. 9, 10, 11, and 12.) These wheels are toothed on the face and grooved on their insides, as shown by the dotted lines in Figs. 3 and 9. The lower roller E has oblique grooves or channels to carry the coating material under the thing to be coated. The upper roller F is a pressing-roller, which is carried on the forked beam G, having its fulcrum at *g'*, and is kept down by the helical spring H. The faces of these two rollers should conform in shape to the thing to be coated. J is a vertical rod, the lower end of which is connected to a lug on the front of I, an internal movable frame, which carries the brushes X and their adjusting-gear. The face of these brushes may be made to conform to the shape of the thing to be coated. The frame I is capable of being withdrawn and replaced with ease.

K is a thumb-screw for regulating the pressure on the top roller F. L L are guide-rollers, and M are sliding plates, carrying the rollers L, and kept in position by helical springs N. P is a bridge-piece, carrying the brushes by means of a stirrup-piece, Q. R is an adjustable rod for regulating the position of the upper brush X. S is a removable and an adjustable sliding trough for containing the paint, and the bottom and end of which should be curved to give depth of paint under the wheel D, and act as a shield to keep the coating material from scattering; T, sliding tray to catch the dripping of the wheels and brushes when the trough is removed; U, fly-wheel on the shaft C; W, a lath passing through the machine.

In operation the trough S is filled with paint or other liquid, the lath W is inserted between the rollers E F, the fly-wheel is started, and, by pressing the lath W through the rollers E F, the machine is kept working. The wheels D elevate the paint or other coating material onto the top of the lath or other thing to be coated, and also allow the paint to run through the dotted conduits until it is taken

up by the oblique grooves or channels in the roller E, which delivers the paint or coating against the under side of the lath. The paint or coating is then smoothed over the lath or thing coated by the lath or thing passing between the brushes X Z.

In operation, if the brushes were made with the bristles in a continuous length, the effect would be to paint the laths on the sides only. To avoid this I make the receiving end of the brushes of the peculiar form as shown at *y*, Fig. 14, the effect of which is that the fish-tail form causes the paint to flow into the center of the lath, and the blank parts *z* allow the surplus paint to fall into the trough.

Having now fully described and ascertained the nature of this my invention, and the best means I am acquainted with for carrying the same into practical effect, I wish it understood that I do not confine myself to the precise relative detailed arrangement, proportions, or dimensions of the several parts of the apparatus, as it will be readily seen that the same may be considerably varied without departing from my invention; but

What I claim is—

A painting-machine consisting of the paint-reservoir S and the elevator-wheel D, in combination with the spreading-wheels E and F, the brushes X Z, having two or more sets of bristles, and the guide-rollers L, substantially as described.

In witness whereof I, the said WILLIAM ROBERTS, have hereunto set my hand and seal this sixteenth day of June, in the year of our Lord one thousand eight hundred and seventy-six.

WILLIAM ROBERTS. [L. S.]

Witnesses:

FREDERICK JOHN CHEESBROUGH,

JOHN HAMILTON REDMOND,

Both of 15 *Water Street, Liverpool, England.*