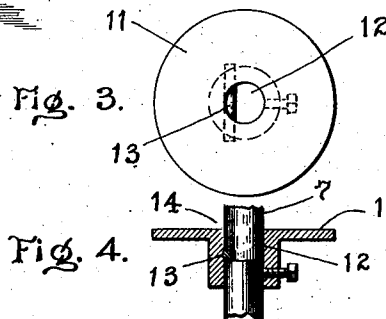
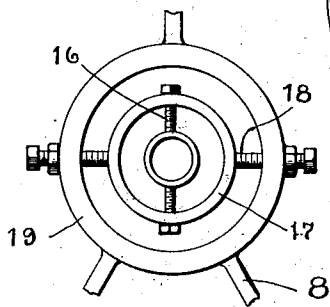
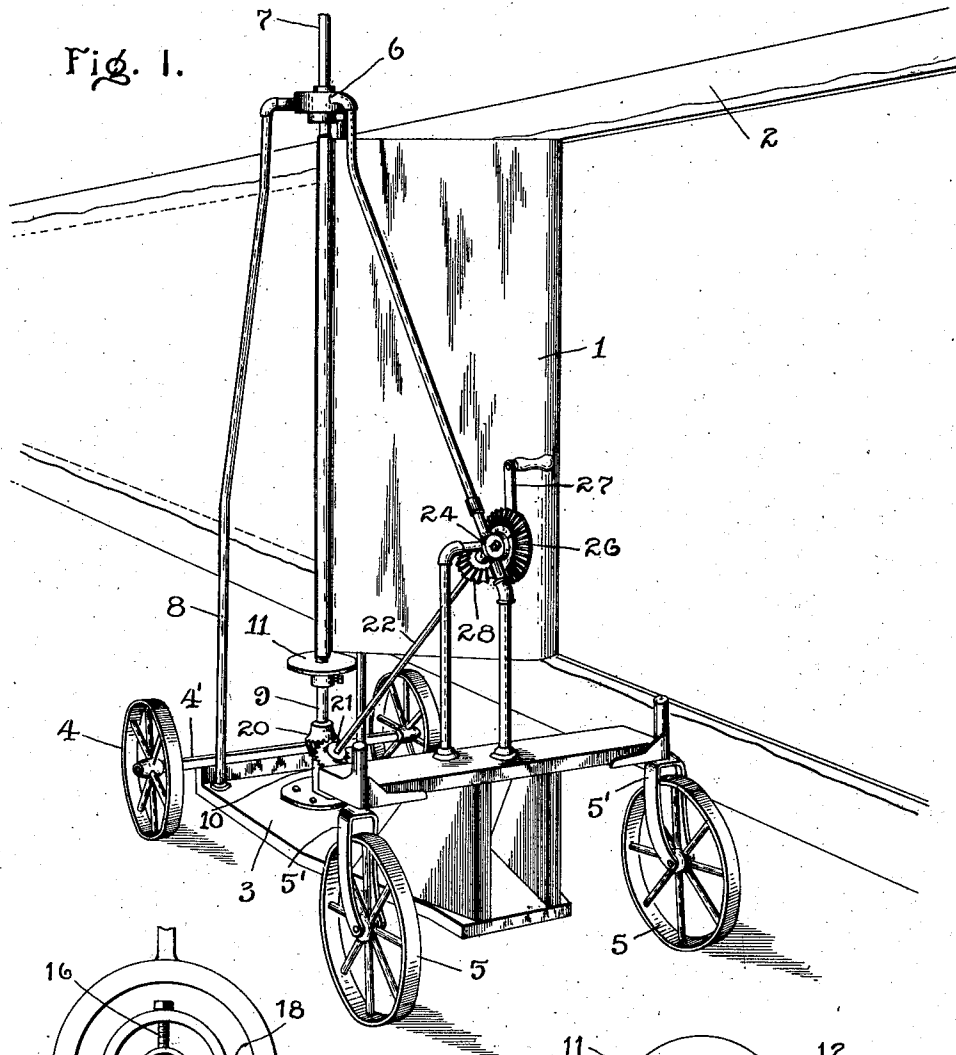


L. B. GIRARD.
ROLLING OFF MACHINE FOR SHADE CLOTH.
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1,022,024.

Patented Apr. 2, 1912.



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UNITED STATES PATENT OFFICE.

LOUIS B. GIRARD, OF LOS ANGELES, CALIFORNIA, ASSIGNOR TO THE GIRARD MANUFACTURING COMPANY, OF LOS ANGELES, CALIFORNIA, A CORPORATION OF CALIFORNIA.

ROLLING-OFF MACHINE FOR SHADE-CLOTH.

1,022,024.

Specification of Letters Patent.

Patented Apr. 2, 1912.

Application filed June 2, 1910. Serial No. 564,721.

To all whom it may concern:

Be it known that I, LOUIS B. GIRARD, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Rolling-Off Machine for Shade-Cloth, of which the following is a specification.

This invention relates to a machine for rolling shade cloth off of the frame upon which it has been secured during the painting and drying operation.

In order to produce a shade cloth of required stiffness and smoothness it is usual to secure the cloth on suitable frames, and after painting and drying the cloth is torn from said frames, and the present invention relates to a machine for performing this tearing off operation rapidly and economically and at the same time winding the cloth in such manner as to avoid any liability of creasing or wrinkling the same, thereby preserving the smooth surface of the cloth.

Other objects of the invention will appear hereinafter.

The accompanying drawings illustrate the invention and referring thereto:

Figure 1 is a perspective of the machine in operation. Fig. 2 is a plan of a gimbal bearing for supporting the upper end of the roller on which the shade cloth is wound. Fig. 3 is a plan of the socket in which said roller is inserted for support and rotation thereof. Fig. 4 is a vertical section of said socket with the roller therein.

Referring to Fig. 1, the shade cloth indicated at 1 is secured by suitable means on the frame 2 whereby it is stretched during the painting and drying operations. The machine for rolling off the shade cloth comprises a truck or movable support adapted to move or be moved longitudinally of said frame, and provided with means for rolling up the shade cloth and at the same time tearing it off of said frame. The movable supporting means consists preferably of a frame or vehicle body 3 mounted on truck wheels comprising for example a pair of forward wheels 4 on an axle 4' and a pair of rear wheels 5 having swivel or caster supports 5' whereby they may adjust themselves to the direction of motion of the vehicle. A frame 8 in the form of a tripod or other suitable construction serves to sup-

port an upper bearing 6 for the roller 7 on which the cloth is to be wound, and a lower bearing is provided for said roller, carried by a vertical shaft 9 mounted in a bearing 10 on the frame 1, said shaft 9 having a collar 11 at its upper end formed with a central recess or socket 12 to receive the lower end of the roller 7. A pin 13 extending transversely in said socket is adapted to engage with a cut-away portion 14 at the lower end of the roller 7 to cause rotation of the roller with the shaft 9.

The upper end of the roller is preferably supported by a gimbal or self-adjusting bearing, the bearing member 6 being mounted by pivots 16 in an intermediate ring 17 which is connected by pivots 18 in an outer ring 19 at the upper end of the tripod frame 8, the said sets of pivots 16 and 18 being transverse to one another so as to provide for self adjustment of the upper bearing 6 for the roller. The upper bearing 6 for the roller is formed as a sleeve through which the roller or stick for receiving the shade cloth may be passed vertically, said roller or stick engaging loosely in this sleeve so as to rotate therein, and extending more or less above the sleeve according to the length of the roller or stick.

Means are provided for driving the supporting shaft 9 for the roller, said means consisting, for example, of a bevel gear 20 on said shaft engaged by a bevel gear 21 carried by shaft 22, the lower end of said shaft being mounted in the bearing 10 aforesaid, and the upper end of said shaft being mounted in a bearing 24 on one of the legs of the tripod 8. A bevel gear 26 is mounted to turn in a bearing on said leg of the tripod and is provided with an operating handle 27 and is adapted to engage a bevel gear 28 on the shaft 22 so as to cause rotation of the shaft 9 by operation of the handle 27.

The operation is as follows: The roller 7 is inserted in the socket 12 and one end of the shade cloth is torn from the frame and secured to the roller. The machine is then moved longitudinally of the frame and at the same time the handle 27 is operated to rotate the shaft 9 so as to wind the shade on to roller 7 causing it to be torn from the frame 2, the machine being moved longitudinally of the frame at sufficient speed to follow up the tearing off motion as it is performed by the rotation of the roller 7. As

the shade is thus wound on to the roller its lower edge is supported by the collar 11, the collar 11 being flanged or extended horizontally so as to provide a support for the shade cloth as it is wound on the roller.

What I claim is:

1. A machine for rolling off shade cloth comprising a support formed as a wheeled vehicle, a frame thereon provided with an upper bearing for the roller on which the shade cloth is to be wound, said upper bearing having a gimbal support and consisting of a sleeve through which said roller is passed, a vertical shaft mounted to rotate on said vehicle, means on said shaft for engaging with the lower end of the roller to rotate the same, and means for rotation of said shaft, said shaft being rotatable independently of the movement of the wheeled vehicle.

2. In a machine for rolling off shade cloth comprising a wheeled vehicle, a member rotatably mounted on the said vehicle to turn on a vertical axis, said member being provided with a socket for receiving the lower

end of a roller, means for engaging the lower end of the roller to cause said roller to rotate with said member and with a flange extending horizontally from said member for supporting the said cloth as it is wound on said roller, a frame extending upwardly from said wheeled vehicle and provided with a bearing for receiving the upper end portion of said roller, said bearing being formed as a sleeve for engaging the roller loosely to permit rotation of the roller in said sleeve, manual operating means, and gearing connecting said manual operating means with the roller supporting member on the vehicle, said roller supporting member and its operating means being movable independently of the movement of the vehicle.

In testimony whereof, I have hereunto set my hand at Los Angeles, California, this 24th day of May, 1910.

LOUIS B. GIRARD.

In presence of—

G. T. HACKLEY,
FRANK L. A. GRAHAM.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."