

(No Model.)

2 Sheets—Sheet 1.

R. H. & L. E. GOWAN.
MACHINE FOR HANGING WALL PAPER.

No. 566,680.

Patented Aug. 25, 1896.

Fig. 1.

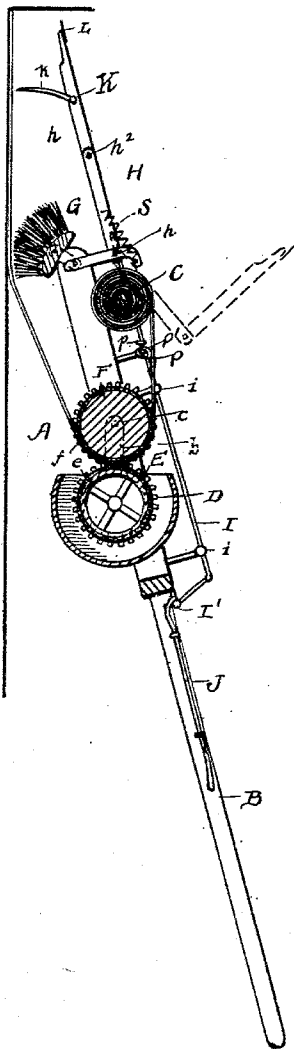
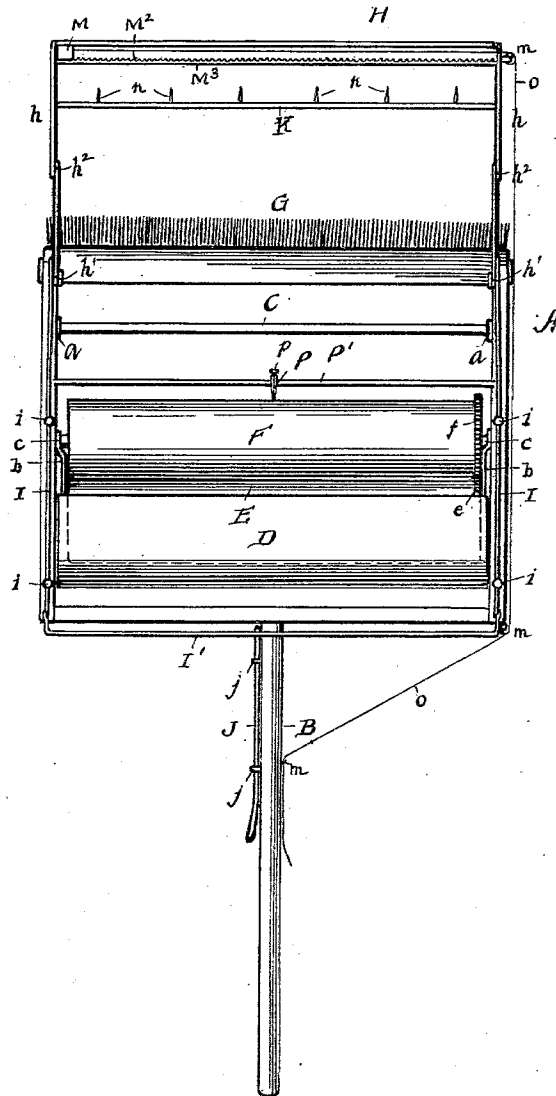


Fig. 2



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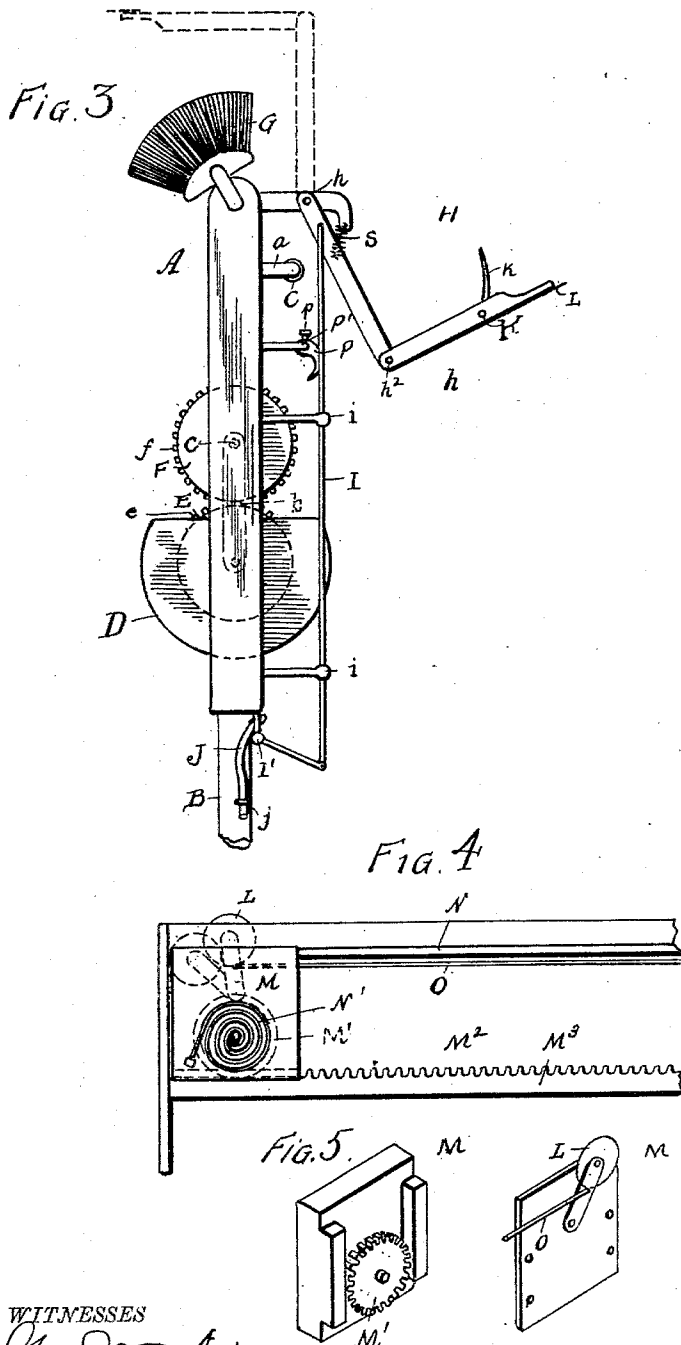
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UNITED STATES PATENT OFFICE.

RICHARD H. GOWAN AND LOUISE E. GOWAN, OF CORSICANA, TEXAS.

MACHINE FOR HANGING WALL-PAPER.

SPECIFICATION forming part of Letters Patent No. 566,680, dated August 25, 1896.

Application filed August 2, 1895. Serial No. 557,988. (No model.)

To all whom it may concern:

Be it known that we, RICHARD H. GOWAN and LOUISE E. GOWAN, citizens of the United States, residents of Corsicana, in the county of Navarro and State of Texas, have invented certain new and useful Improvements in Machines for Hanging Wall-Papers; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 is a vertical section of a machine embodying the invention, shown in operation, with the matching-frame distended or in position to hold the paper against the wall while matching, its position when thrown out of use being shown in dotted lines. Fig. 2 is a front elevation of the machine with the matching-frame in the same position as in Fig. 1. Fig. 3 is a side elevation of the machine with the matching-frame thrown back and its intermediate position indicated in dotted lines. Fig. 4 is a detail view of a portion of the matching-frame with the cutter-carrier and cutter thereon. Fig. 5 shows a perspective view of the carriage M and its gear-wheel, and also of the cutter-plate and cutter.

The object of this invention is to provide a practical and efficient machine for applying wall-paper to walls and ceilings; also for posting bills and the like; and the invention consists in the novel construction and combination of parts, all as hereinafter described, and pointed out in the appended claims.

Referring to the accompanying drawings, the letter A designates a rectangular frame, which is carried by a handle B attached to the central portion of its base. Supported across said frame in bearings *a* is a rod or roll C, which is slipped through the roll or bolt of paper as it comes from the dealer, said rod or roll being removable from its bearings for this purpose.

D designates a paste-pot, which is swung between the arms of the frame below the paper roll by means of the links or stirrups *b*, which swing on the studs or journals *c*, in order that said pot may assume or maintain

a horizontal position whatever may be the position or inclination of the frame. Journaled in the ends of the paste-pot is a roller E, which is surfaced with flannel, felt, or other suitable material. Said roller is preferably made hollow with open ends, in order that it may fill with paste, and thus increase the holding capacity of the pot D. Journaled in the frame, in working relation to this roller E, is a second and parallel roller F, whose surface is covered with rubber cloth or other suitable material. On one end of this roller F is a gear-wheel *f*, which meshes with the teeth of a similar gear-wheel *e* on the roller E.

G is a transverse brush, which is at the upper end of the frame A, and which is for the purpose of smoothing and setting the paper to the wall.

H designates a jointed frame whose lateral arms *h h* are pivotally secured to the lateral arms of the frame A at the points *h'*, and to which are connected rods I, one at each side, which work in suitable guides *i*, said rods I in turn being connected to a transverse rod I', which is connected to a common lever J, which is movable up and down in guides *j* of the handle B. Connecting the upper portions of the arms *h h* is a rod K, which carries a series of points *k*. The arms *h h* are each jointed at the points *h''*, said joints being fitted somewhat tightly, in order that the upper sections of the arms may be held at different angles to the lower sections.

L designates a rotary cutter, which is for the purpose of cutting the paper at the proper points. Said cutter is carried by a carriage M, in which is a gear-wheel M', arranged to travel in a rack M² on a bar M³, which connects the upper ends of the arms *h h*. The carriage M moves on a guide or track-bar N. Attached to the shaft of the gear-wheel is a spring N', which is arranged to wind as the carriage moves in one direction, and in unwinding to move the carriage in the reverse direction.

O is a cord, which is attached to the carriage M and which is extended through suitable guides *m* to the handle.

P is a second knife or cutter, which is for the purpose of splitting or ripping the paper in a lengthwise direction when necessary.

This knife is arranged to slide upon a rod P', and is held at the desired point by means of a set-screw p.

S are springs for throwing the frame H forward when not in use.

The operation of the machine is as follows: The paper is led from the roll C down and through between the two pasting-rollers E and F, receiving from the roller E, upon its blank surface, the proper coating of paste. Supposing a side wall is being papered, the frame A is first carried up to a point near the ceiling, the paper being led up between the brush and the wall and caught at its upper edge portion by the points k. The position of the matching-frame H at this time is as shown in full lines in Fig. 1. The paper being held in this position, the operator can readily determine its proper adjustment to match the figures of the pattern and moves the matching-frame slightly up or down, as the case may require, in order to effect such adjustment. Until the paper is properly matched care must be taken that it is not pressed against the wall with sufficient force to cause it to adhere thereto; but this is not difficult, owing to the fact that only a small area is pressed against the wall by the points k. The machine is now moved up toward the ceiling, which causes the frame H to buckle outwardly with the points k still pressing the paper. The brush G is now nearly up to the ceiling and is pressed against the paper. The lever J is now released, and the frame H falls back into the position shown in dotted lines in Fig. 1. The machine is now moved down the wall to the base-board, the brush setting the paper as it moves down. When the base-board is reached, the operator again actuates the lever J and throws the matching-frame into the position indicated in dotted lines in Fig. 3, and catches the transverse end bar of said frame upon the base-board. The position of the machine as a whole at this time will be readily understood, as the operator has simply moved it down the wall, keeping hold of the handle B. With the matching-frame resting upon the base-board, he now presses on said handle in such a manner as to cause the arms h h of said frame H to straighten out, until the frame again assumes the position shown in Fig. 1, except that it is inverted or nearly so. The cord O is now pulled, causing the carriage M to run across the frame H, the gear-wheel M' working in the rack M². This rotates the cutter and causes it to make the cut as it moves across the paper. During this action the paper, where the cut is being made, is held between the cutter and the base-board, and the cutter works against this board. When the frame H is straightened out, before making this cut, the points k are pressed into engagement with the running part of the paper near where the cut is made, and catch and hold it in position for commencing the next operation, which is a repetition of that described. It will be seen that

as the frame is moved down the wall, as described, the tension on the paper will cause it to unwind from the roll C as fast as it is required, and that as it passes between the rollers E and F it rotates the roller E, and thereby the roller F, so that the latter is constantly bringing a freshly-coated surface to the paper. It often occurs, of course, that but a partial breadth of paper is required, as, for instance, in papering adjacent to a door or window-frame. In such a case the knife P is properly adjusted on the rod P', and as the paper is pulled over this knife it is split at the proper point. That portion of the paper so split which is not to be used is allowed to hang loosely down the front of the machine, and is not passed between the rollers E and F.

It will be apparent that the exact manipulation of the machine will depend largely upon the nature of the work being done, but the above general description will be sufficient to enable the operation to be readily understood.

The joints h² of the frame H are sufficiently stiff to enable the said frame as a whole to be readily moved by the lever J, and the upper section thereof can be thrown into the position which may be required in any particular case by causing it to take a bearing against the wall or other object and properly manipulating the main frame.

In using the machine in the manner above described, there will of course sometimes remain at the top of the breadth of paper being hung, after it has been matched with the preceding breadth, an excess or margin. When such excess or margin is sufficiently narrow, it may be left and subsequently covered by the border. Otherwise it should be subsequently trimmed off by hand.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a machine for papering walls and like purposes, a handled frame, a paste-pot and pasting devices supported thereon, a paper-holding roll, a matching-frame, pivoted to the main frame, a cutting device, and means for setting the paper to the wall, substantially as specified.

2. In a machine for papering walls and like purposes, a handled frame, a paste-pot having a swinging support thereon, the pasting-rollers, a paper-holding roll, the pivoted matching-frame, means for throwing said frame into and out of operation, and a traveling cutter working on said frame, substantially as specified.

3. In a machine for papering walls and like purposes, a frame, the paste-pot swung thereon, the pasting-rollers, the setting-brush, means for holding the paper while matching, and a cutting device, substantially as specified.

4. In a machine for papering walls and like purposes, the combination with the main frame, of the angular matching-frame pivoted thereto, the rods and lever for throwing

said frame into operative position, the cutter-carrying carriage and its cutter arranged to travel on said matching-frame, the cord for moving said carriage in one direction, and a spring for moving it in the opposite direction, substantially as specified.

5. In a machine for the purposes described, the handled frame, its paste-pot, paste-applying devices, paper-holding roll, and paper-setting brush, of the jointed matching-frame pivoted to the main frame, means for operating said matching-frame, its rack-bar, the cutter-carrying carriage the cutter carried thereby, the cord attached to said carriage, and the adjustably-ripping cutter device, substantially as specified.

6. In a machine for the purposes described,

the combination with the frame A, and the paper-holding, feeding and paste-applying devices carried thereby, of the matching-frame H pivoted to said frame A, said frame H having the jointed lateral arms *h*, means for cutting the paper carried by said frame H, and means for operating said frame to move it into desired positions, substantially as specified.

In testimony whereof we affix our signatures in presence of two witnesses.

RICHARD H. GOWAN.
LOUISE E. GOWAN.

Witnesses:

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ALLIE STORY.