

(No Model.)

J. W. MEYER.
WALL PAPER ROLLING MACHINE.

No. 565,116.

Patented Aug. 4, 1896.

FIG. 1.

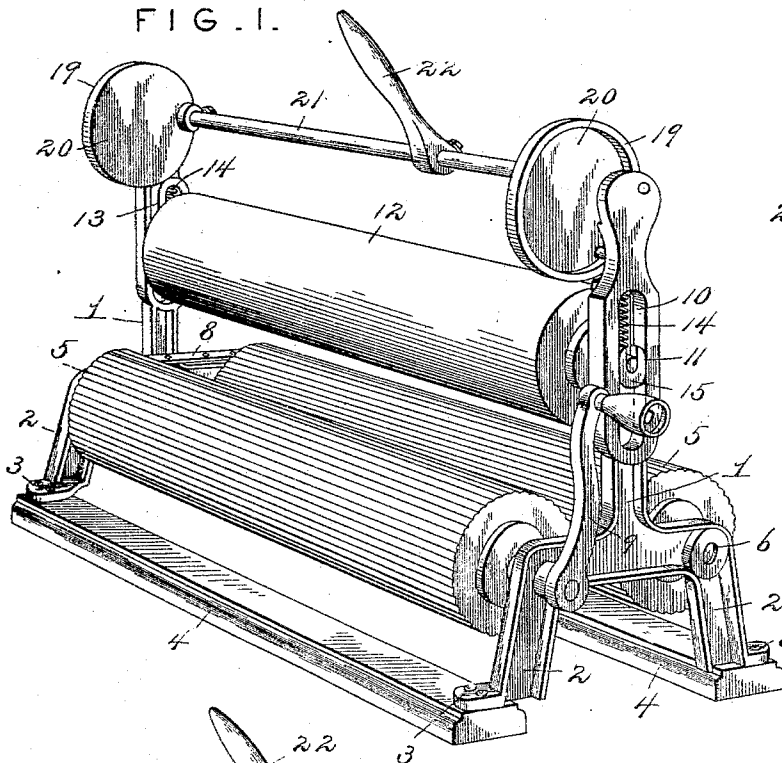


FIG. 4.

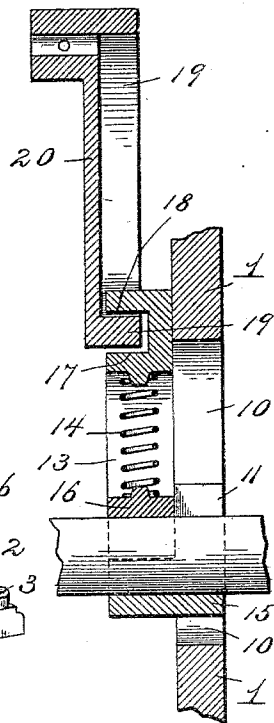


FIG. 2.

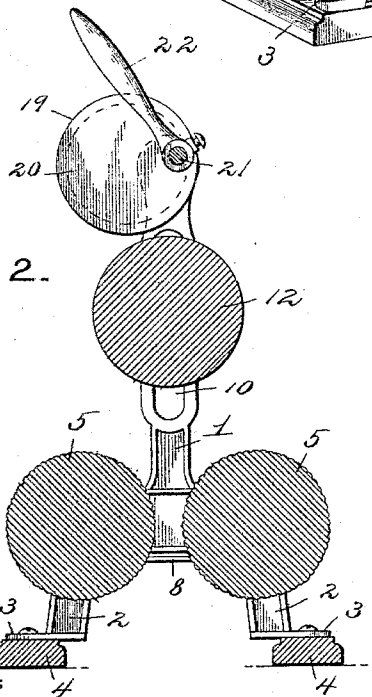
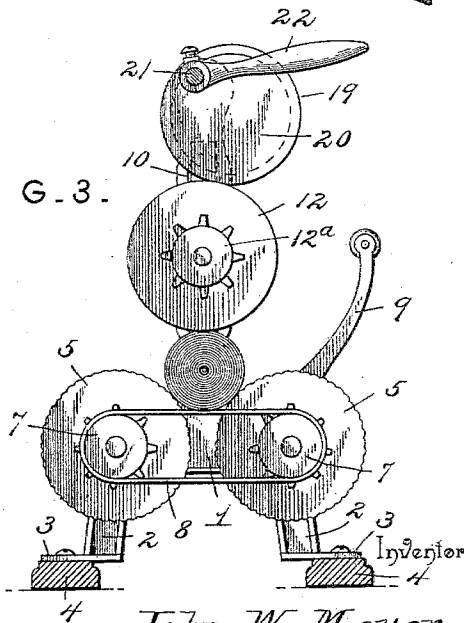


FIG. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN WILLIAM MEYER, OF WILMETTE, ILLINOIS.

WALL-PAPER-ROLLING MACHINE.

SPECIFICATION forming part of Letters Patent No. 565,116, dated August 4, 1896.

Application filed December 23, 1895. Serial No. 573,087. (No model.)

To all whom it may concern:

Be it known that I, JOHN WILLIAM MEYER, a citizen of the United States, residing at Wilmette, in the county of Cook and State of Illinois, have invented a new and useful Wall-Paper-Rolling Machine, of which the following is a specification.

This invention relates to an improvement in wall-paper-rolling machines, and the object in view is to provide a hand-machine which will tighten rolls of wall-paper which have become loose and to straighten out and make smooth and symmetrical rolls of paper which have become indented or bent out of their usual cylindrical form.

To the above end the invention consists in an improved wall-paper-rolling machine embodying certain novel features and details of construction and arrangement of parts, as hereinafter fully described, illustrated in the drawings, and finally pointed out in the claims hereto appended.

In the accompanying drawings, Figure 1 is a perspective view of the improved machine complete. Fig. 2 is a vertical transverse section through the same. Fig. 3 is a similar section taken just inside of one of the end standards and showing the manner in which the rolls are geared. Fig. 4 is a vertical longitudinal section through one of the standards, showing the bearing of the pressure-roll and the means for adjusting the same.

Similar numerals of reference designate corresponding parts in the several figures of the drawings.

Original packages of wall-paper as received from the factory, by reason of tight packing and careless handling, contain many rolls which are not cylindrical, but flattened or triangular in shape, and in this condition are not fit to place upon the market, as the trade requires that all rolls shall be perfect in form. Also in the handling of wall-paper considerable time is lost by reason of the rolls becoming loose on account of their being repeatedly unrolled when exhibiting the paper to intending purchasers. In order to reshape or tighten said rolls and in that way prevent injury to the same, it becomes necessary in many cases to unwind a roll to perhaps half its extent and rewind the same by hand by

rolling the paper upon a table or other flat surface. In order to save the time thus required and to quickly and effectively tighten a loose roll, I have devised the machine which will now be described.

Referring to the accompanying drawings, 1 designates a pair of standards which have their lower ends bifurcated or forked to form separate legs 2, having perforated feet 3, by means of which the standard may be secured to a pair of longitudinal base-bars 4, spaced apart and arranged in parallelism, thus forming a broad base upon which the machine rests.

5 designates a pair of friction-rolls which are longitudinally corrugated, roughened, or ribbed, as shown, and have their shaft ends journaled in bearings in the lower bifurcated portions of the standards, as indicated at 6. These corrugated rolls are arranged preferably in the same horizontal plane and spaced a slight distance apart, and each is provided at one end with a sprocket-wheel 7, by means of which and with the aid of a slotted or perforated belt or chain 8 the two corrugated rolls are driven simultaneously in the same direction. The shaft of one of the rolls 5 is extended beyond and outside of one of the standards and has secured thereto an operating-crank 9, by which the rolls may be driven.

Each of the standards 1 is formed with a vertical longitudinal slot 10, in which reciprocates the vertically-movable bearing 11 of an adjustable pressure-roll 12. This roll may, like those 5, be provided with a sprocket-wheel 12^a, and, if desired, the chain or belt 8 may be made longer and passed around or over said sprocket-wheel 12^a for driving the roll 12 positively. The bearing 11, at each end of the pressure-roll, comprises an open vertical portion 13, in which is arranged a spring 14 and a lateral extension 15, of substantially U shape, which receives the journal of the pressure-roll, said U-shaped extension being slidably fitted within the vertical slot 11 of the standard. The vertical portion 13 of the bearing lies within the plane of the standard, so as to be capable of up-and-down movement, and the spring 14, which bears at its upper end against the corresponding end of the bearing, exerts its pressure

upon a cap 16, fitting over the journal of the pressure-roll. In this manner the pressure-roll is held firmly toward the corrugated rolls and at the same time adapted to yield vertically for accommodating an indented or uneven roll of wall-paper. Each of the bearings 11 is provided at its upper end with inwardly-extending shoulders 17 and 18, between which operates the rim or flange 19 of a cam 20. Two of these cams are employed, one at each end of the machine, and mounted rigidly upon opposite ends of a rock-shaft 21, journaled in the upper ends of the standards and having a lever 22, by means of which the cams may be operated. The flange 19 of each cam is annular and projects laterally from the main body or web of the cam and works between the shoulders 17 and 18 of the bearing 11, so that when the lever 22 is vibrated the pressure-roll 12 will be raised or lowered.

In operation the pressure-roll is elevated by vibrating the lever 22 in the proper direction, after which the roll of paper to be tightened is introduced between the corrugated rollers. The pressure-roller is now lowered until it bears against the roll of paper, whereupon motion is imparted to the corrugated rolls, which effect a rotation of the roll of paper in a reverse direction, and by reason of their frictional grasp upon the paper and the pressure of the roll 12 the roll of paper is quickly tightened and any indentations therein straightened out. By reason of the presence of the springs 14 the pressure-roll 12 may readily yield, so as to accommodate an uneven roll of paper, the tension of said springs, however, being always exerted to straighten out the roll of paper.

The machine hereinabove described is very simple in construction and has been found efficient in operation, and will effect a considerable saving in time and trouble to the retailer of wall-paper.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed as new is—

1. In a machine for tightening rolls of paper, a frame having vertical slotted standards, in combination with spaced friction-rolls journaled therein, means for simultaneously rotating said rolls in the same direction, a pressure-roll journaled in bearings slidingly mounted in the slotted standards and movable toward and away from the friction-rolls, a superposed rock-shaft journaled in the standards above the pressure-roll, and cams fast on the opposite ends of the rock-shaft and provided with laterally-projecting rims engaging between shoulders on the bearings of the pressure-roll, whereby in the operation of the rock-shaft, the pressure-roll is moved toward and away from the friction-rolls, substantially as described.

2. In a machine for tightening rolls of paper, a frame having slotted standards, in combination with friction-rolls journaled therein, means for simultaneously rotating said rolls in the same direction, a pressure-roll journaled in bearings slidingly mounted in said standards and movable toward and away from the friction-rolls, said bearings being slotted to permit the shaft of the pressure-roll to yield relatively thereto, springs arranged in and movable with said bearings for holding the pressure-roll to its work, a rock-shaft, means for operating said rock-shaft, and cams secured to the opposite ends of said rock-shaft and having laterally-projecting rims which engage between shoulders on the bearings of the pressure-roll, whereby the pressure-roll may be moved positively up or down and at the same time allowed to yield relatively to the friction-rolls, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN WILLIAM MEYER.

Witnesses:

JOHN S. MOWER,
BERNARD SUES.