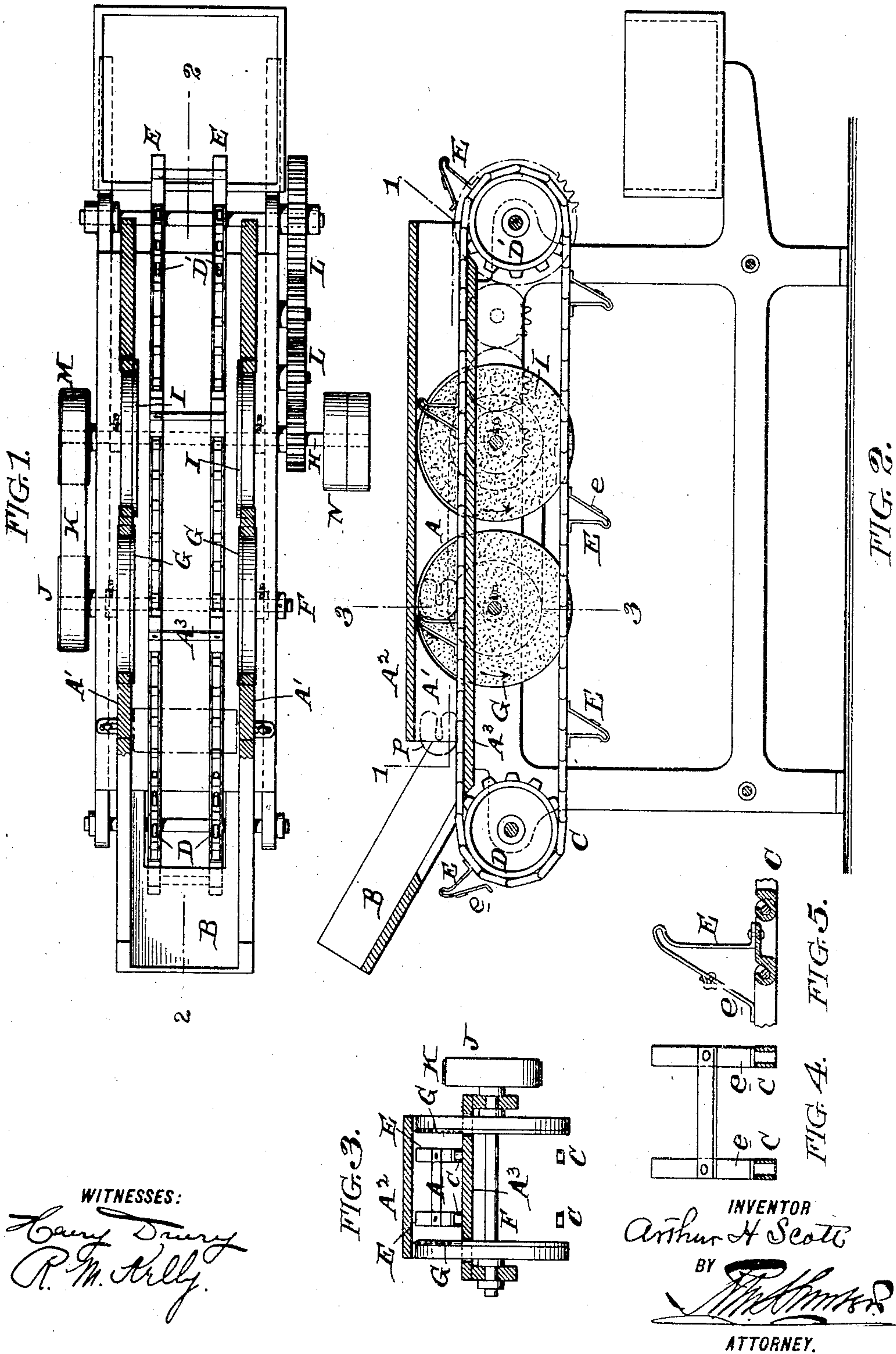


No. 785,103.

PATENTED JULY 12, 1904.

A. H. SCOTT.
SANDPAPERING MACHINE.
APPLICATION FILED SEPT. 8, 1903.

NO MODEL.



WITNESSES:

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ARTHUR HOYT SCOTT, OF PHILADELPHIA, PENNSYLVANIA.

SANDPAPERING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 765,103, dated July 12, 1904.

Application filed September 8, 1903. Serial No. 172,296. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR HOYT SCOTT, of the city and county of Philadelphia and State of Pennsylvania, have invented an Improvement in Sandpapering-Machines, of which the following is a specification.

My invention has reference to sandpapering-machines for toilet-paper rolls; and it consists of certain improvements, which are fully set forth in the following specification and shown in the accompanying drawings, which form a part thereof.

The object of my invention is to sandpaper or smooth the ends of rolls of toilet-paper in a speedy and efficient manner.

In carrying out my invention I provide a guide-channel through which the paper-rolls are conveyed by an endless conveyer and combined with one or more sets of rotating, sandpapering, or grinding wheels or disks, which smooth the ends of the rolls of paper and bring the widths of the rolls to a uniform standard.

My invention also comprehends details of construction, which, together with the above features, will be better understood by reference to the drawings, in which—

Figure 1 is a sectional plan view of a sandpapering-machine embodying my improvements, taken on line 1 1 of Fig. 2. Fig. 2 is a sectional elevation of same, taken on line 2 2 of Fig. 1. Fig. 3 is a cross-section of the same on line 3 3 of Fig. 2, and Figs. 4 and 5 are sectional detail views of the conveyer.

A is a guide-channel through which the paper-rolls P (dotted lines) are conveyed by the endless conveyer-chains C C and the carriers E, secured to the links thereof. These carriers may be provided with rearwardly-extending struts *e* to resist backward movement. These struts are not attached directly to the conveyer-chains, so that they are free when passing about the guide-wheels D D', carrying and propelling the conveyer-chains.

G G are two grinding or sand wheels. They are secured to a shaft F and driven by a pulley J. These wheels G are in line with two side steel guides A', which cause the paper-rolls P to be properly fed between the said

wheels so that each end of the rolls shall be evenly ground off.

I I represent a second set of sandpapering or grinding wheels and are set slightly nearer together than the wheels G G, so as to complete the grinding of the ends of the paper-rolls to the finished size. The wheels I I are secured to a shaft H, having at one end a driving-belt pulley N and at the other end a driving-pulley M, which is belted by belt K with the pulley J of the other sand-wheels G G. In this manner both sets of sand-wheels are driven in the same direction and at uniform speeds. If desired, the sand-wheels G G may be dispensed with, or one of the said wheels and the opposite wheel I may be omitted, if preferred, though I find in practice that it is best to employ both sets of sand-wheels, as shown.

The driving-wheels D' for the conveyer-chains C are driven by gearing L from shaft H or otherwise.

The guides A' are preferably somewhat farther apart where they join with the chute B than at the sand-wheels G G, so that they easily receive the paper-rolls from the chute and then centralize them between the sand-wheels, so that each end shall be properly abraded. The channel A is provided with a top board A², which holds the paper-rolls from riding up when passing the upwardly-moving portions of the sand-wheels G and I.

The sand-wheels are adjustable on their shafts by means of set-screws, and the side guides A' are also adjustable to or from each other to accommodate themselves to various widths of paper-rolls. As the weight and downward thrust upon the conveyer-chains would cause them to sag, I provide a floor or guiding support A³, over which the said conveyer-chains run to support them.

It is obvious that belts may be used in place of chains as the conveyers and also that the sand-wheels may be made of emery, corborundum, or sand, either solid or coated on the inner face, and that more than two pairs of such wheels may be employed, if preferred.

While I prefer the construction shown, I do not confine myself to the details of con-

struction, as these may be modified without departing from the spirit of the invention.

Having now described my invention, what I claim as new, and desire to secure by Letters

5 Patent, is—

1. In a machine of the character described, the combination of a conveyer for rolls of paper, guides for centralizing the rolls, and rotating grinding-wheels respectively arranged
10 upon opposite sides of the conveyer and rotating about axes at right angles to the conveyer to grind the ends of the paper-rolls and make them smooth and parallel.

2. In a machine of the character described, the combination of a conveyer for rolls of paper, guides for centralizing the rolls, and two sets of rotating grinding-wheels the wheels of each set respectively arranged upon opposite sides of the conveyer to grind the ends of the
20 paper-rolls and in which the second set of grinding-wheels are placed closer together than the first set.

3. In a machine of the character described, the combination of a conveyer for rolls of paper, adjustable guides for centralizing the rolls, and rotating grinding-wheels respectively arranged upon opposite sides of the conveyer to grind the ends of the paper-rolls and adjustable to or from each other.

30 4. In a machine of the character described, the combination of a channel through which paper-rolls are conveyed and guided, a flexible endless conveyer arranged along the

lower portion of the channel for moving the paper-rolls, a support to hold the conveyer
35 against sagging, and grinding-wheels arranged respectively upon opposite sides of the conveyer and rotating upon axes at right angles to the length of the conveyer to grind the ends of the paper-rolls smooth and parallel. 40

5. In a machine of the character described, the combination of a channel through which paper-rolls are conveyed and guided, a flexible endless conveyer arranged along the lower
45 portion of the channel for moving the paper-rolls, a support to hold the conveyer against sagging, a guide to hold the paper-rolls against upward movement, and grinding-wheels arranged respectively upon opposite sides of
50 the conveyer and rotating upon axes at right angles to the length of the conveyer and across the faces of which the paper-rolls are conveyed to grind the ends of the said paper-rolls smooth and parallel.

6. In a machine of the character described, the combination of endless conveying devices
55 having projecting carriers provided with rearwardly-extending struts, and two rotating grinding-wheels arranged respectively upon opposite sides of the conveying devices. 60

In testimony of which invention I hereunto set my hand.

ARTHUR HOYT SCOTT.

Witnesses:

GEO. E. GRIFFIN,
E. IMER SCOTT.