

S. ELDER.

MACHINE FOR TRIMMING WALL PAPER.

No. 86,143.

Patented Jan. 26, 1869.

Fig: 1.

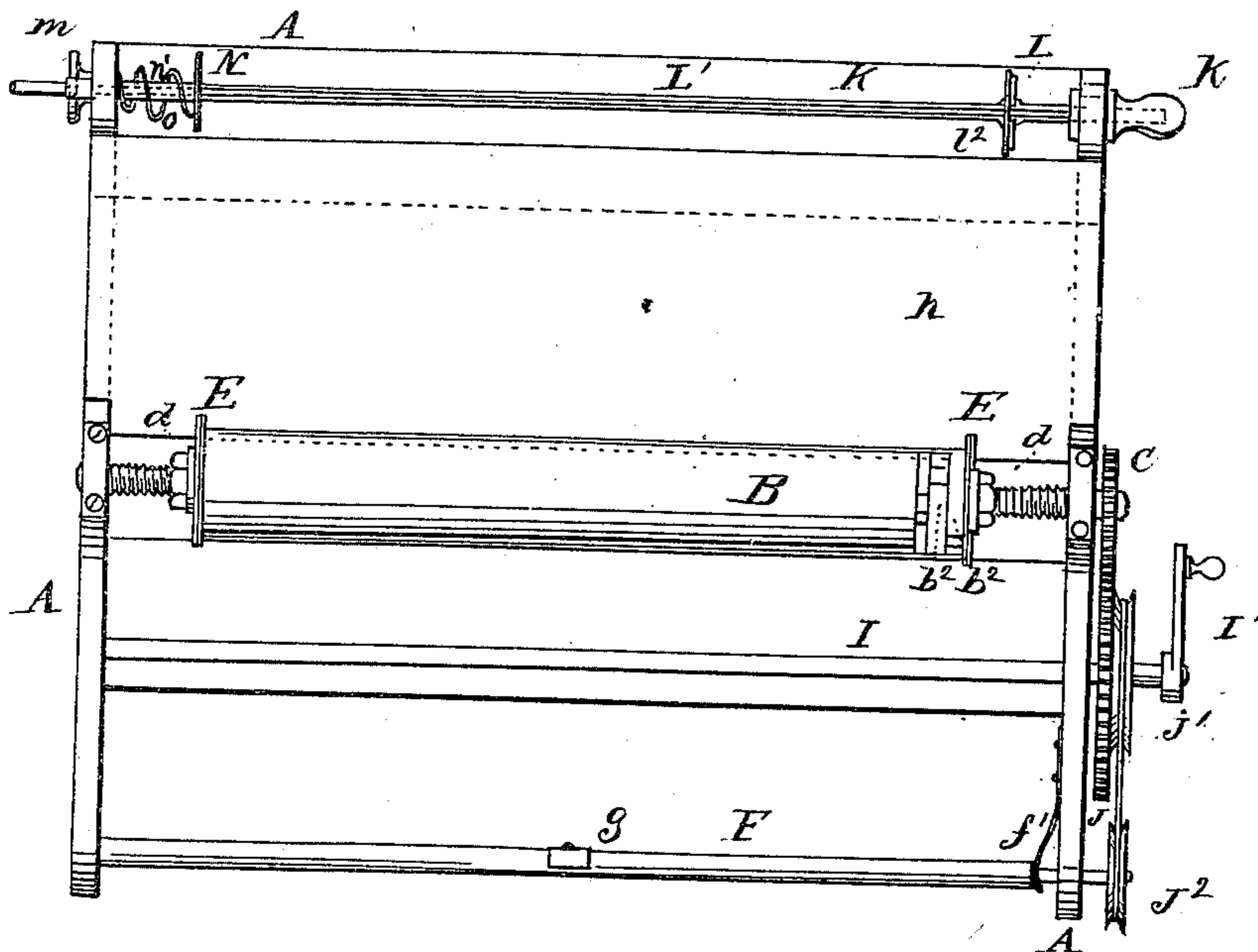
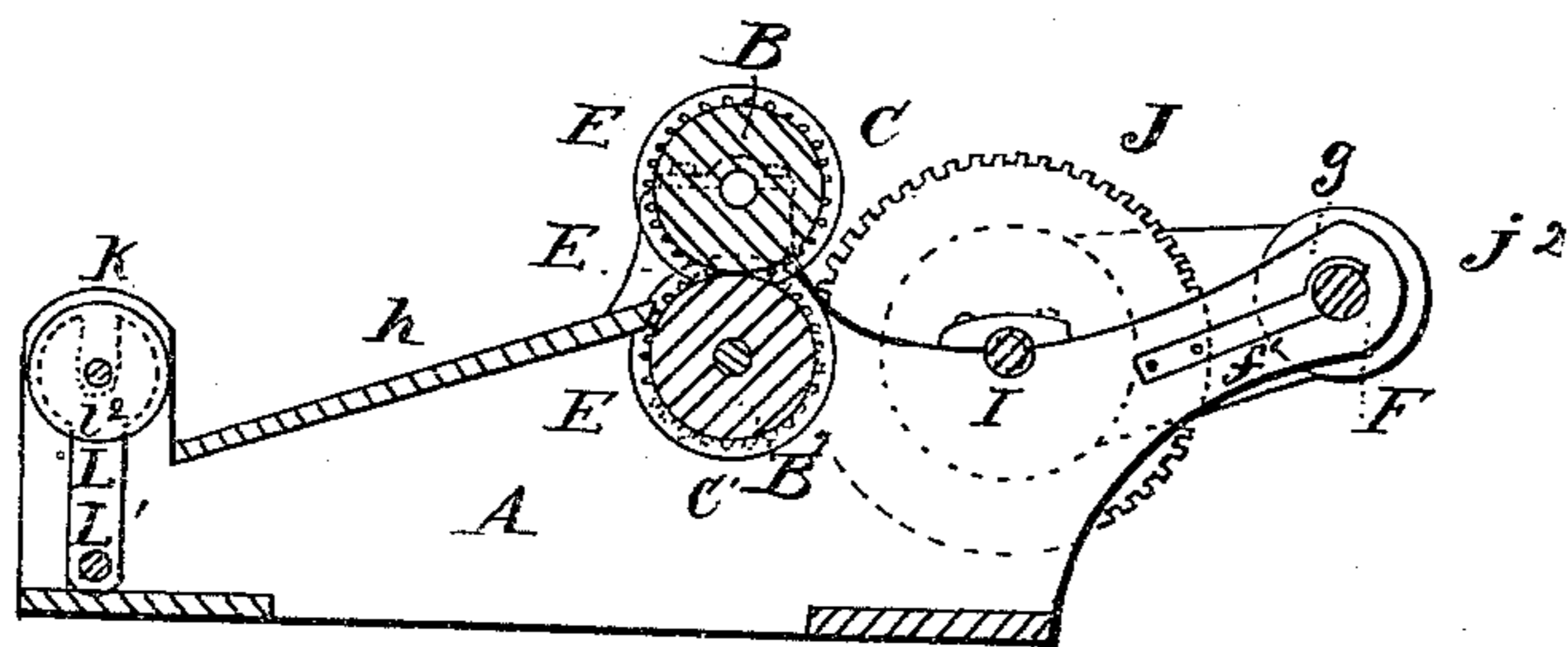


Fig: 2.



Witnesses:

B. H. Muehle
Fred. W. Scott

Inventor.

Stewart Elder

United States Patent Office.

STEWART ELDER, OF BUFFALO, NEW YORK.

Letters Patent No. 86,143, dated January 26, 1869.

IMPROVEMENT IN MACHINE FOR TRIMMING WALL-PAPER.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, STEWART ELDER, of the city of Buffalo, in the county of Erie, and State of New York, have invented a certain new and useful Machine for Trimming Wall-Paper; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure I is a top plan view.

Figure II is a transverse vertical section.

Letters of like name and kind refer to like parts in each of the figures.

A represents a frame, so constructed and arranged as to support all the operating-parts of the machine.

B B represent a pair of feed-rollers, which may be covered with cloth, felting, or other soft or elastic substance. They are placed one above the other, and contiguous to each other, in such manner that wall-paper may be fed between them, and moved in either direction when the rollers are revolved.

The two spur-wheels, *c c'*, serve to give both the rollers a uniform rotary motion, though in opposite directions.

The spindles upon which the rollers are supported are provided with an external screw-thread, for the accommodation of the set-screws or screw-nuts *d d'*, one being supplied at each end of each roller.

Between these nuts (or, rather, their attendant washers) and the rollers, I place circular knives, *E*, one pair being located at each end of the rollers. By means of the screw-nuts *d* these knives may be adjusted in any desired position, and at any requisite distance apart.

Wooden washers, as shown at *b²*, are interposed between the knives and ends of the rollers, whenever it is necessary to increase the distance between the knives.

F represents a drum or shaft, upon which the trimmed paper is wound.

One or more spring-clamps or catches, *g*, are secured to this drum, by which the end of the paper is held until the entire roll is wound up.

This shaft is made adjustable, in a manner to enable the operator to remove one end thereof from its bearings, by means of the spring *f'* or its equivalent.

I represents the main driving-shaft, which is revolved by means of the winch-handle *I*.

A spur-wheel, *J*, upon this shaft, gears with the spur-wheel *c'*, and hence, revolves the feed-rollers and knives.

A grooved pulley, *j¹*, connects, by means of an endless cord, with a similar pulley, *j²*, upon the shaft *F*, and thereby revolves the same, and winds up the roll of trimmed paper.

As a modification, the shaft *I* and spur-wheel *J* may be dispensed with, and the pulley *j¹* and winch-handle *I* be attached to the spindle of one of the rollers, if preferred.

An inclined table, *h*, is secured to the frame *A*, be-

tween the rollers and the rod, which holds the roll of paper to be trimmed, which is shown at *K*.

This rod *K* is made removable, and provided with a handle, *k'*, for that purpose.

A circular guide-plate, *L*, is supported vertically upon a horizontal rod, *L'*, and has a vertical slot extending from the centre upwardly to the periphery thereof, into which slot the rod *K* is passed, as shown in Fig. II.

A circular washer, *I²*, is used for covering up the slot in the guide-plate *L*.

The latter is located near one end of the rod *K*, and nearly in a line with one pair of the knives upon the rollers; but, in order to enable the operator to adjust the roll of paper to be trimmed upon the rod *K*, so as to cut off the requisite width of selvage, the rod *L'*, which carries the guide-plate, is made movable horizontally within its bearings, and provided with a thumb-screw, *m*, at one end thereof.

N represents an automatic follower, which is attached to a sleeve, *n'*, upon the end of the rod *K*, opposite the guide-plate *L*.

A spiral spring, *O*, is interposed between the follower and side-frame, in a manner to force the follower toward the guide-plate *L*, thereby keeping the roll upon the rod *K* in constant contact with the guide-plate while the paper is unwound therefrom.

Operation.

The rod *K* is first removed from the machine, by taking hold of the handle *k'*. The roll of paper to be trimmed is then adjusted upon the rod by passing the latter through the central opening of the roll. After the rod has been replaced in its bearings, it becomes necessary to adjust the guide-plate *L*, so as to present to the action of the knives the requisite width of selvage, according to the pattern of the paper. This is done by means of the thumb-screw *m*.

The follower *N* will, by the action of the spring *O*, be forced against the end of the roll, opposite the guide-plate, and thereby prevent any unevenness of the cut.

The roll of paper being secured to the rod *K*, in the proper position, the end of the paper is then taken and placed evenly upon the table *h*, and presented to the rollers *B B'*.

Upon turning the winch-handle *I'*, the rollers and knives are revolved, the paper drawn through between the rollers, and accurately trimmed upon one or both edges, as may be required. In the latter instance, the knives should first be adjusted upon their spindles, at the required distance apart, by the aid of the washers *b²* and screw-nuts *d*, as above described.

As the trimmed paper issues from between the rollers, it is taken and the end placed under the spring-clamp *g*, upon the shaft *F*. The latter being revolved by the action of the band-wheels or pulleys, *j¹ j²*, the trimmed paper will be rolled up or wound upon the shaft *F*.

After all the paper has been trimmed, and in the shape of a roll upon the shaft F, one end of the latter is removed from its bearing, and, by a slight back twist, the roll of paper disconnected from the clamp *g*, and removed.

I am aware that it is not new to provide rollers with several cutting-disks adjustable thereon, such being used in machines for cutting pasteboard into sheets, but as this could not be used for trimming both edges of paper, and as it forms no part of my invention, I disclaim it. Still, in view of it, I do not wish to claim broadly the combination of the feed-rollers provided with knives; but

What I claim as new, and desire to secure by Letters Patent, is—

1. The feed-rollers B B', mounted on screw-spindles, and provided with a cutter, E, at each end, adjustable in the manner described, when arranged as set forth, with relation to the rod K, adjustable guide-plate L, and spring-follower N, whereby wall-paper of various

widths is trimmed at both edges simultaneously, as herein shown and described.

2. The combination and arrangement of the adjustable rod L', guide-plate L, removable rod K, and spring-follower N, as and for the purposes herein set forth.

3. The removable roller F, when provided with a spring-holder, *g*, and retained in its bearing by the pressure of spring *f*', as herein shown and described, for the purpose set forth.

4. The described arrangement, on the frame A, of the feed-rollers B B', having adjustable cutters, E, at their ends, the inclined table *h*, rod L', with guide-plate L, and adjusting-screw *m*, removable rod K, spring-follower N *n o*, roller F with clip *g*, spring *f*, main shaft I I' and gearing J *c c'* J' J², or equivalent gearing, all constructed and arranged to operate in the manner and for the purposes herein described.

Witnesses:

STEWART ELDER.

FRED. W. SCOTT,

B. H. MUEHLE.