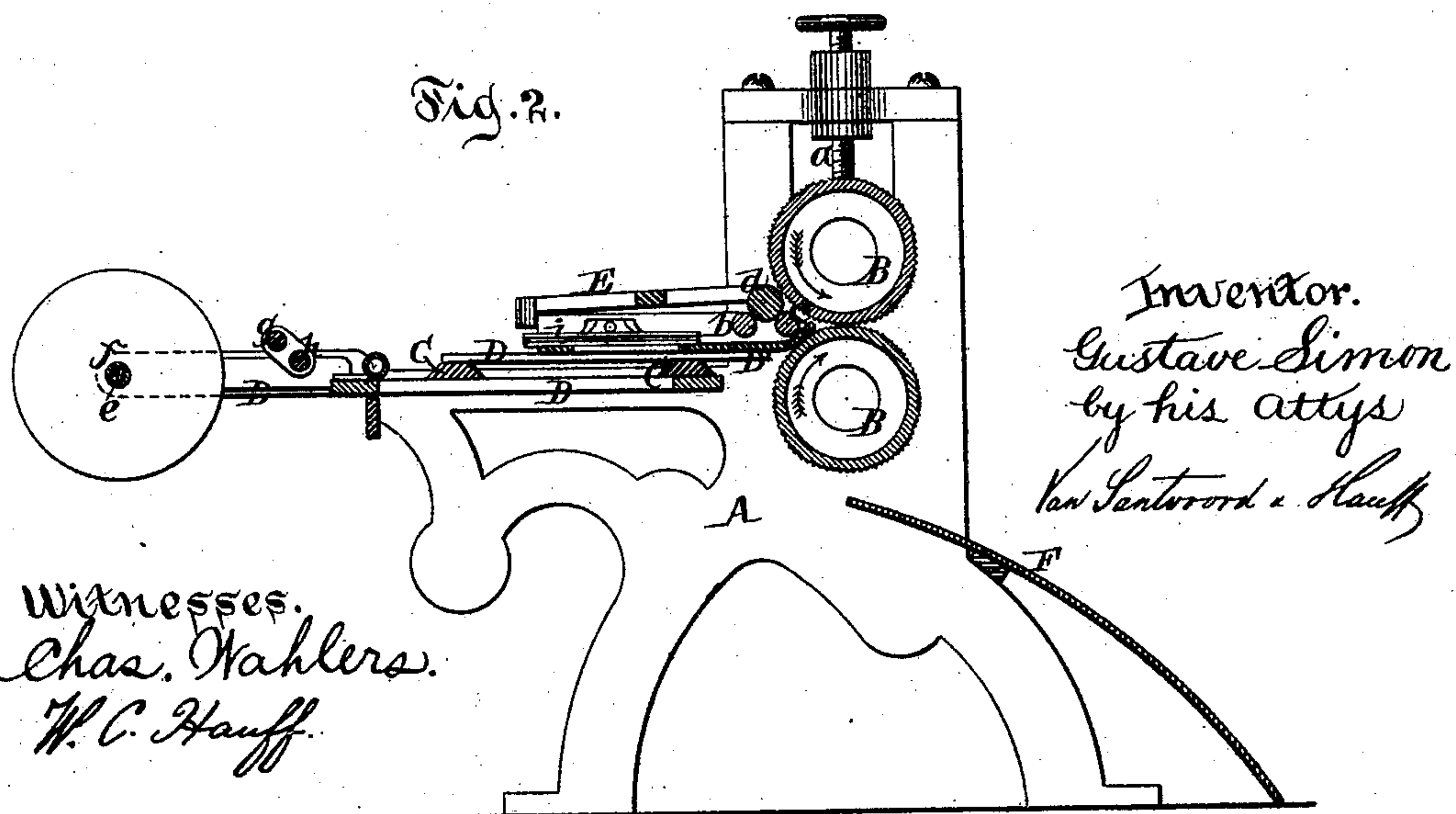
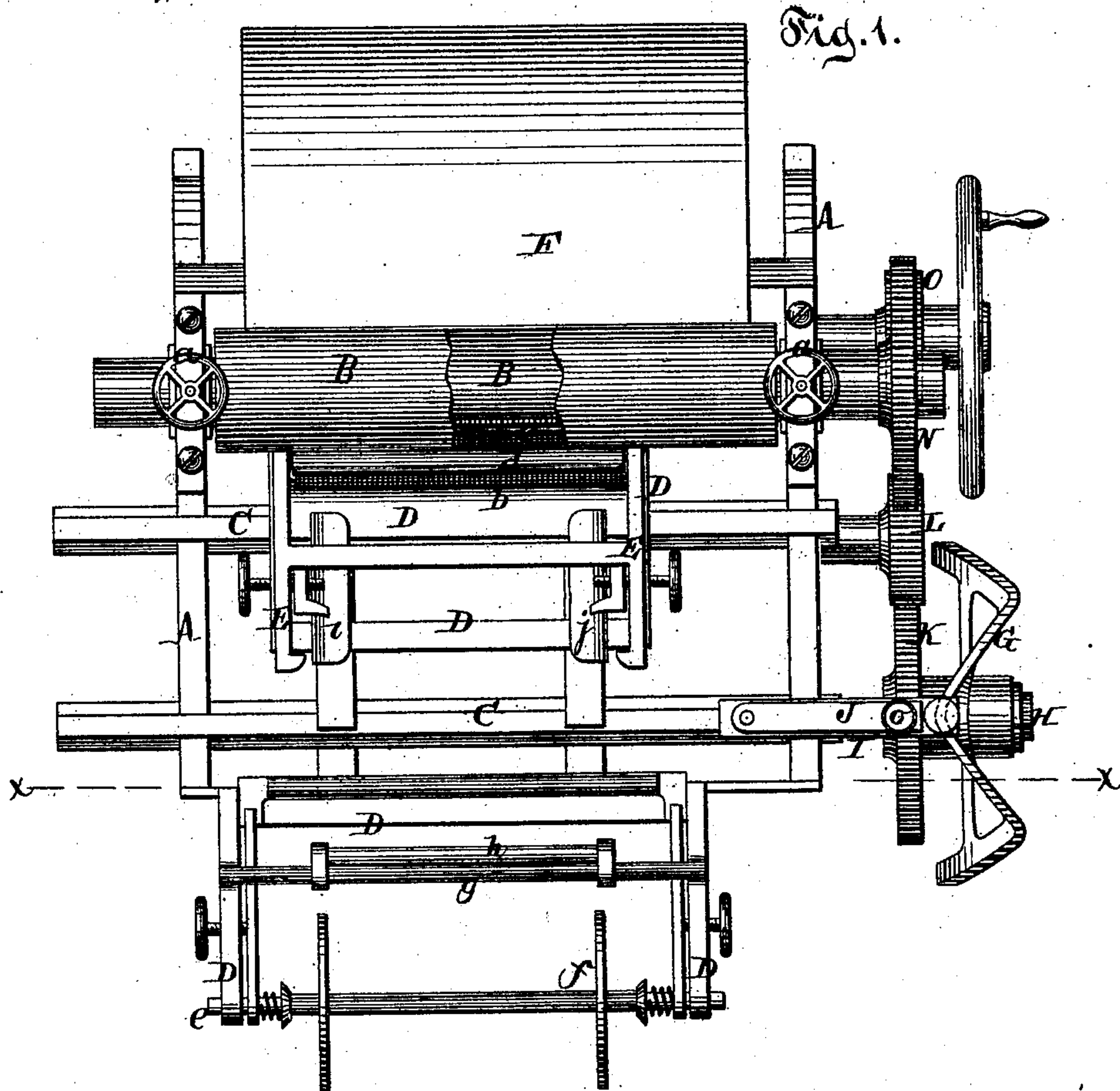


G. SIMON.
Machine for Shaping Dress-Trimming.
No. 210,570. Patented Dec. 3, 1878.



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Fig. 3.

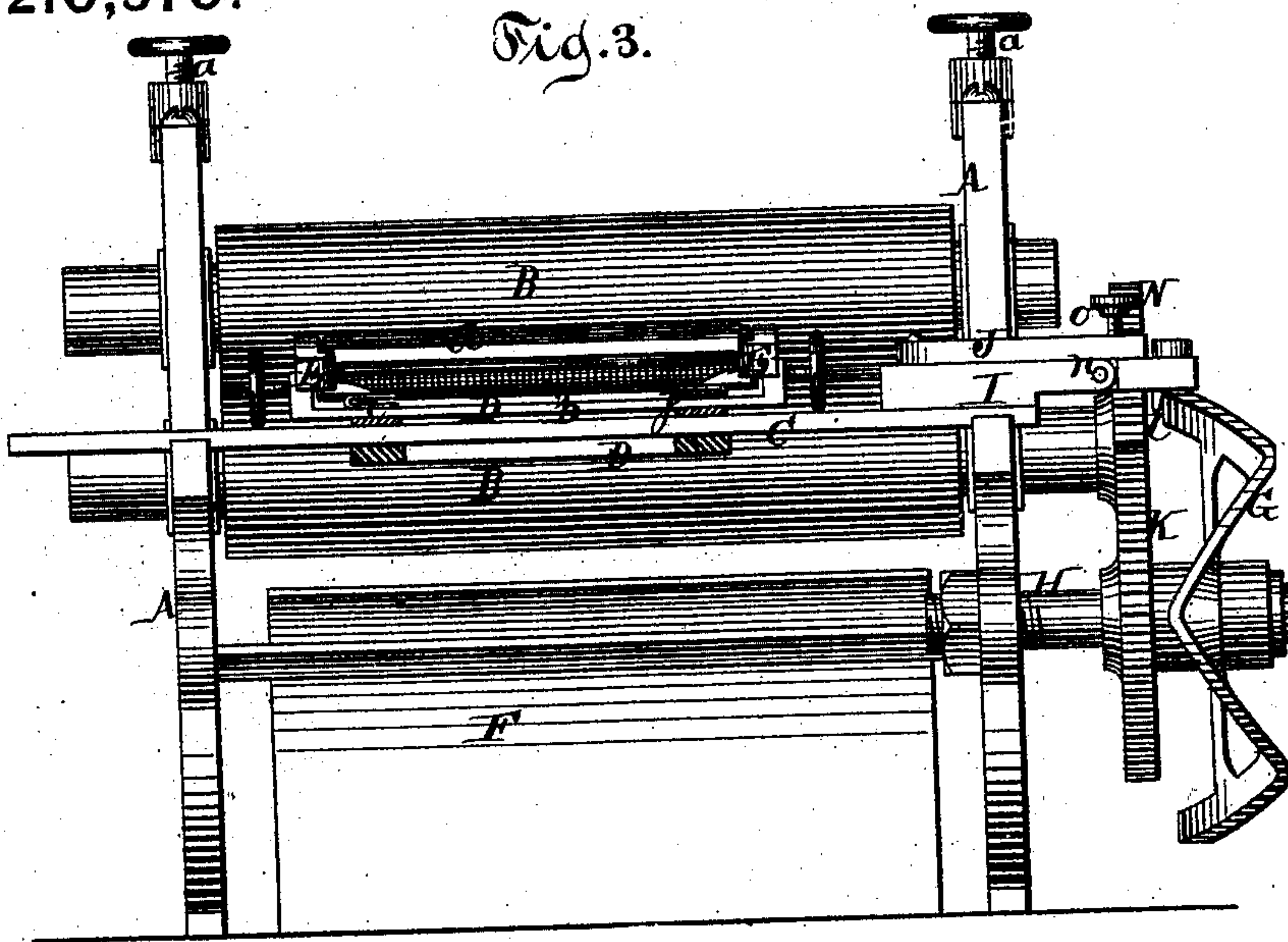
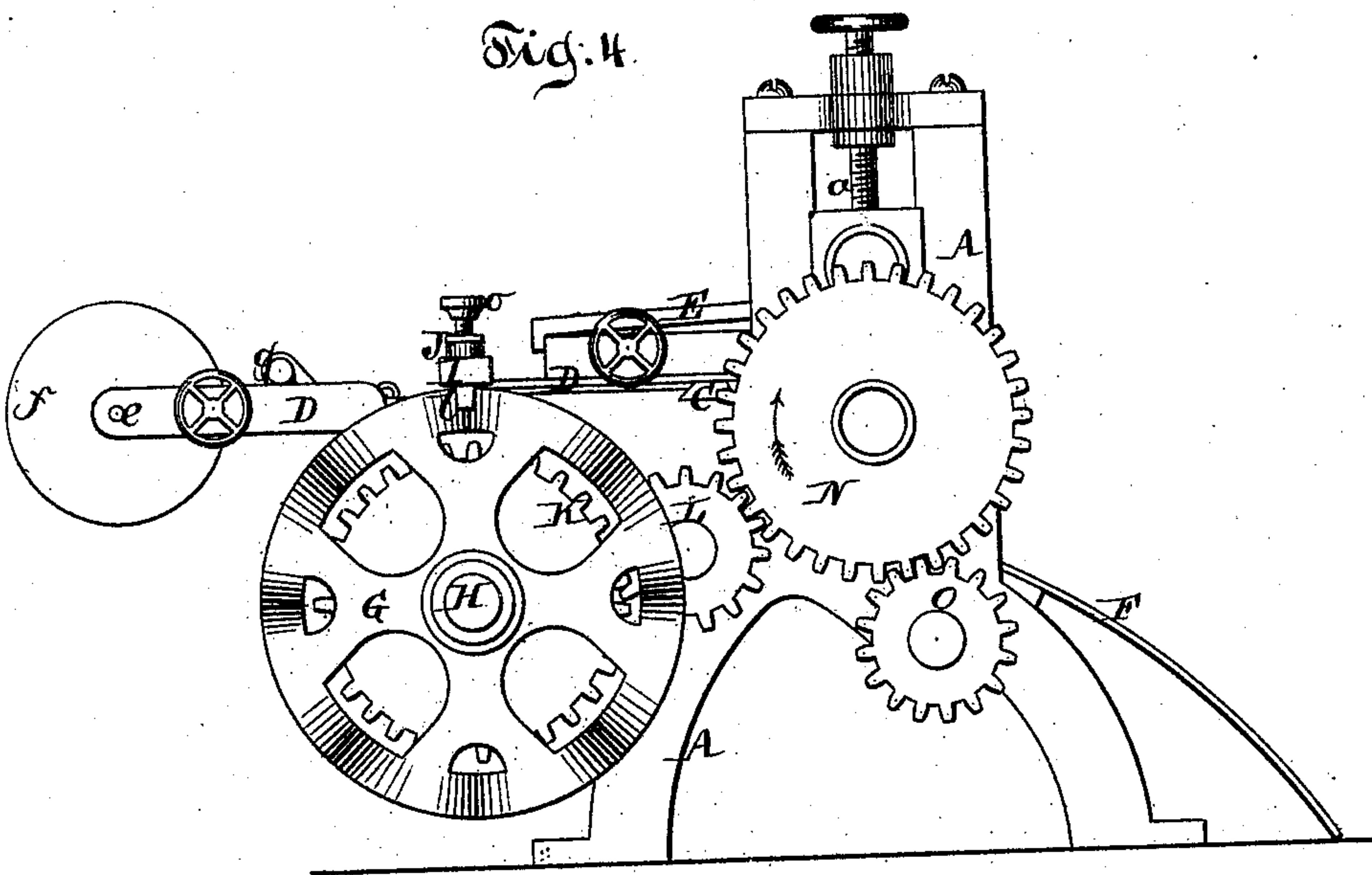


Fig. 4.



Witnesses.
Chas. Wahlers.
W. C. Hauff.

Inventor.
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UNITED STATES PATENT OFFICE.

GUSTAVE SIMON, OF NEW YORK, N. Y.

IMPROVEMENT IN MACHINES FOR SHAPING DRESS-TRIMMINGS.

Specification forming part of Letters Patent No. **210,570**, dated December 3, 1878; application filed August 28, 1878.

To all whom it may concern:

Be it known that I, GUSTAVE SIMON, of the city, county, and State of New York, have invented a new and useful Improvement in Machines for Shaping Dress-Trimnings, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a plan or top view of a machine containing my invention. Fig. 2 is a longitudinal vertical section thereof. Fig. 3 is a transverse vertical section of the same in the plane of the line *x x*, Fig. 1. Fig. 4 is a side elevation thereof.

Similar letters indicate corresponding parts.

My invention relates to a machine for treating straight-edged trimmings to produce an article having scalloped edges, as shown and described in Letters Patent of the United States granted to me June 4, 1878, No. 204,626.

It consists in the combination of pressure-rollers and a gage or carriage having a reciprocating motion lengthwise of said rollers and serving to guide the unshaped trimming between the rollers in an undulating line, the gage or carriage being provided with tension-rollers to regulate the movement of the trimming, and being also provided with suitable bearings to support a reel containing the unshaped trimming.

It also consists in certain novel means for imparting motion to the reciprocating gage or carriage, whereby I am enabled to give to said gage or carriage either a rapid or a slow motion or an irregular motion.

In the drawing, the letter A designates the frame of my machine, in which are mounted the pressure-rollers B B. These rollers may have either a plain or fluted surface; and they are preferably made hollow and mounted on hollow gudgeons, so that they can be heated. Said rollers, moreover, have their bearings in boxes sliding in the frame A, and are held in superficial contact with each other by the action of set-screws *a*. The letter C designates slides which are arranged parallel to the pressure-rollers B B and to each other in the frame A, and which, together with a frame, D, secured to the slides, constitute the reciprocating gage or carriage of my machine. On this gage or carriage are arranged tension-rollers

b c d, the same being located adjacent to the pressure-rollers B B.

The tension-rollers *b c* are mounted in the frame D of the gage or carriage in a corresponding horizontal plane to each other, while the tension-roller *d* lies between and above said rollers *b c*, and is mounted in an independent frame, E, resting on the frame D. The object of this arrangement of the rollers *d* is to permit of lifting the same off the rollers *b c*, and thus facilitate the operation of drawing the trimming around the rollers. The edge of the frame D of the gage or carriage adjacent to the pressure-rollers B B is preferably serrated, as shown in Fig. 1, to increase the effect of the tension-rollers *b c d*.

The trimming to be shaped passes under the roller *b*, (see Fig. 2,) over the roller *d*, under the roller *c*, and thence between the pressure-rollers B B, whereby the movement of the material is regulated and it is accurately shaped. The trimming is prevented from being caught or soiled as it emerges from between the pressure-rollers B B by a deflector, F.

On a suitable portion of the frame D of the gage or carriage is arranged a spindle, *e*, to receive a reel, *f*, on which is wound the trimming to be shaped, so that this reel, besides revolving on its own axis, partakes of the motion of the gage or carriage.

On the frame D of the gage or carriage are also, in some cases, arranged bars *g h*, to guide the trimming as it passes off the reel *f*, and adjustable guides *i j* for the edges of the trimming.

By arranging the reel *f* to move with the reciprocating gage or carriage C D the trimming is not liable to be twisted or torn as it is drawn from the reel by the action of the pressure-rollers.

For the purpose of imparting a reciprocating motion to the gage or carriage C D, I make use of a cam-wheel, G, which is mounted loosely on a shaft, H, secured to the machine-frame, and engages with an arm, I, projecting from one of the slides C, the arm I having two spurs, *l l*, (see Figs. 3 and 4,) between which the cam-wheel catches, so that when a revolving motion is imparted to the cam-wheel the arm I and the slide receive a reciprocating motion. The arm I is jointed, as at *n*, Fig. 3,

and to its upper surface is pivoted a latch or button, J, carrying a set-screw, *o*. When the latch J is in the position shown—namely, to cover the joint *n*—the arm I is held rigid, while, when the latch is swung clear of said joint, the outer portion of the arm can be swung upward, so as to disengage the same from the cam-wheel G, when the latter can be removed. By this arrangement I am enabled to use cam-wheels of various different shapes, and thus give the gage or carriage any desired motion, so as to bring the scallops of the finished trimming either at regular or irregular distances from each other and at various distances apart.

On the shaft of the cam-wheel G is mounted a cog-wheel, K, which gears, through a pinion, L, with a similar wheel, N, mounted on one of the gudgeons of the lower pressure-roller, the cog-wheel N being also geared with a driving-wheel, O, so that a revolving motion is imparted to the pressure-rollers and to the cam-wheel simultaneously.

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

1. The combination, in a machine for shaping dress-trimmings, of pressure-rollers and a gage or carriage having a reciprocating motion lengthwise of said rollers, adapted and serving to guide the unshaped trimming between the rollers in an undulating line, substantially as described.

2. The combination, in a machine for shaping dress-trimmings, of pressure-rollers and a

reciprocating gage or carriage for guiding the unshaped trimming between said rollers, the gage or carriage being provided with tension-rollers to regulate the movement of the trimming, substantially as described.

3. The combination, in a machine for shaping dress-trimmings, of pressure-rollers and a reciprocating gage or carriage for guiding the unshaped trimming between said rollers, the gage or carriage being provided with bearings to support a reel containing the unshaped trimming, substantially as described.

4. The combination, in a machine for shaping dress-trimmings, of pressure-rollers and a reciprocating gage or carriage for guiding the unshaped trimming between said rollers, the gage or carriage being provided with tension-rollers for regulating the movement of the trimming, and being provided with suitable bearings to support a reel containing the unshaped trimming, substantially as described.

5. The combination, with pressure-rollers and a reciprocating gage or carriage for guiding the unshaped trimming between said rollers, of the jointed arm I, latch J, and cam-wheel G, engaging with the jointed arm, substantially as shown and described.

In testimony whereof I have hereunto set my hand and seal this 23d day of August, 1878.

GUSTAVE SIMON. [L. s.]

Witnesses:

FRANK M. TAYLOR,
A. G. LANE.