

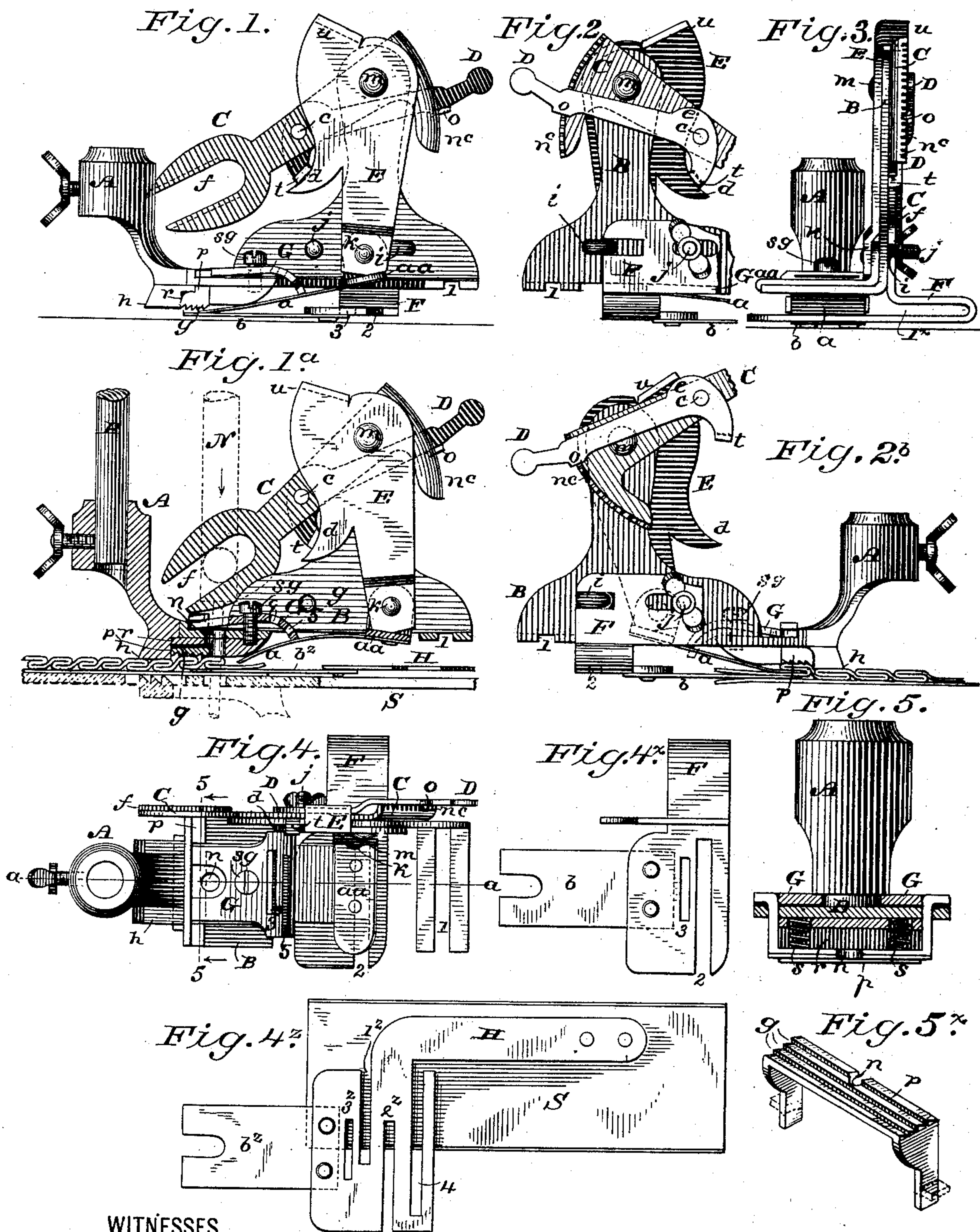
(No Model.)

W. R. PARSONS.

RUFFLER ATTACHMENT FOR SEWING MACHINES.

No. 375,681.

Patented Dec. 27, 1887.



WITNESSES

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# UNITED STATES PATENT OFFICE.

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## RUFFLER ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 375,681, dated December 27, 1887.

Application filed July 19, 1884. Serial No. 133,212. (No model.)

*To all whom it may concern:*

Be it known that I, WINSLOW R. PARSONS, a citizen of the United States, residing at Waterloo, in the State of Iowa, have invented a new and useful Improvement in Ruffler Attachments for Sewing-Machines, of which the following is a specification.

My improved ruffler is of that class or type known as "foot attachments with reciprocating ruffling-blades;" and my present invention consists in certain novel features of construction and combinations of parts, hereinafter set forth and claimed.

Figures 1 and 2 of the drawings are elevations of my improved ruffler in a condition of rest, showing its respective sides. Fig. 1<sup>a</sup> is another side elevation from the same point of view as Fig. 1, showing the ruffler, partly in longitudinal section, adjusted for shirring. Fig. 2<sup>b</sup> is another side elevation showing the same side as Fig. 2, with the ruffler adjusted for plaiting. Fig. 3 is an end view, and Fig. 4 is a top view, of the ruffler as seen in Fig. 1; and Figs. 4<sup>c</sup> and 4<sup>d</sup> are top views, respectively, of its removable separator part and the substitute shirring-blade part shown in Fig. 1<sup>a</sup>. Fig. 5 represents a magnified vertical section on the line 5 5, Fig. 4; and Fig. 5<sup>c</sup>, a perspective view of a part shown in Fig. 5.

Like letters of reference indicate corresponding parts in the several figures.

Except as converted for shirring, the improved ruffler represented by Figs. 1 to 5<sup>c</sup>, inclusive, of the drawings is composed of a foot part, A, a frame-piece, B, three lever parts, C D E, the latter carrying the ruffling-blade *a*, and a separator part, F, carrying the separating-blade *b*, with a clamp-piece, G, and accessories of the respective parts. Said foot part A and said frame-piece B are rigidly and fixedly united with each other, and the former is adapted to be attached to the presser-bar of the sewing-machine (P, Fig. 1<sup>a</sup>) as a substitute for the stitching presser-foot in an ordinary manner. Said foot part is peculiarly constructed with a transverse recess, *r*, in its sole, at and immediately behind the needle-hole *n*, and is provided at this point with a pair of small spiral springs, *s*, Fig. 5, projecting downward within said recess, and with a supple-

mental presser part, *p*, Figs. 1, 1<sup>a</sup>, 4, 5, and 5<sup>c</sup>, (shown detached and inverted in the figure last named,) which embraces the recessed portion of the foot, and is held in place below said springs *s* by passing its ends while straight, as shown in full lines in Fig. 5<sup>c</sup>, through holes in said frame-piece B and bending them down above the latter, the vertical portion of said ends being intended to work up and down freely through said holes.

In operation, as the ruffling-blade *a* advances to the position in which it is represented in Fig. 1, or that represented in Fig. 2<sup>b</sup>, and deposits a crimp or gather or plait of the "ruffle-piece" of cloth in position beneath the needle, as shown in Fig. 2<sup>b</sup>, said supplemental presser part *p* rises to accommodate the crimp or gather or plait, and permits the pressing surface or heel *h* of the foot to press with undiminished force upon both pieces of cloth as they lie beneath it, and thus provides against either piece of cloth being pushed through beneath said heel by the ruffling-blade. Moreover, owing to the adaptation of the supplemental presser part to rise and fall independently of the main pressing-surface, as aforesaid, said supplemental presser part is adapted to accommodate itself to the surface formed beneath it by the top of the sewing-machine throat-plate, cloth-plate, or feed-dog and the interposed crimps, gathers, or plaits, so as to press uniformly, or with substantially uniform pressure, on the latter across the whole width of the ruffling-blade, notwithstanding inequalities in the tops of said machine parts.

In retracting the ruffling-blade from its advanced position, as represented, for example, by Fig. 2<sup>b</sup>, there is in rufflers as heretofore constructed a liability that the unsewed portions of the ruffle-piece will be drawn back, so as to impair the crimps or gathers or plaits last formed, notwithstanding the transfixing thereof at the stitching-line by the needle, as illustrated by Fig. 1<sup>a</sup>. This is likewise effectively guarded against by the independent pressure over the entire area in which the last crimp or gather or plait lies, constantly exerted by said springs *s*, through said presser part *p*, as will be seen by comparing Figs. 1<sup>a</sup> and 2<sup>b</sup> with Fig. 5. The sole of said presser part *p* is pro-



vided with creases or grooves *g*, (best seen in Fig. 5<sup>a</sup>.) These grooves are transverse with reference to the movement of the cloth, and preferably numerous, and separated by ribs shaped like ratchet-teeth in cross-section, as seen in Fig. 1<sup>a</sup>, so that they shall not obstruct the movement of the cloth. The objects of these grooves are to keep fine crimps or gathers in shape and parallel with each other, as they are completed and left beneath said presser part, so as to imitate "stroking" the ruffle and to aid in preventing the retraction of crimps, gathers, or plaits by the ruffling-blade, as aforesaid. Fewer grooves, and grooves of different shapes, may answer for this purpose, and they may be used in a foot part which is not provided with a supplemental presser part; but the latter being used they are preferably formed in its sole, as shown. Said frame-piece B, lever parts C D E, separator part F, and clamping-piece G, with the shirring-blade substitute for said separator part, (represented by H and S, Figs. 1<sup>a</sup> and 4,) and the several features and details of all these parts form no part of the present invention; and so far as the same are novel and patentable they are hereby disclaimed in favor of another application for patent to be filed by me hereafter for the purpose of patenting them. (Application filed January 23, 1885, Serial No. 153,757.) They are shown herein and are to be considered as representing any suitable devices for completing a sewing-machine ruffler embodying a supplemental presser, *p* or *p*<sup>x</sup>, adapted to rise and fall independently of the main pressing-surface, a spring or springs, *s* or *s*<sup>x</sup>, acting on such supplemental presser, and a presser-foot, A or A<sup>x</sup>, recessed to accommodate such supplemental presser and spring or springs, as hereinbefore described.

Having thus described my said improve-

ment in ruffler attachments for sewing-machines, I claim as my invention and desire to patent under this specification--

1. In a sewing-machine ruffler having a reciprocating ruffling-blade, a foot part constructed with a pressing-surface which rests upon the sewed ruffle or gathers behind the point at which the crimps or gathers are successively completed or finished, and provided with a supplemental presser part or sole-piece, which rests upon the crimps or gathers at said point where they are completed or finished, and with an independent presser spring or springs between the latter and the top of said foot part.

2. In a sewing-machine ruffler having a reciprocating ruffling-blade, a foot part having a pressing-surface, which rests upon the sewed ruffle behind that point at which the gathers or plaits are successively completed and left, and provided at said point with a supplemental presser part forming a portion of the sole of the foot, and having creases or grooves therein transverse to the path of the cloth, substantially as herein specified, for the purpose set forth.

3. The combination, in a sewing-machine ruffler, of a foot part having a pressing-surface which rests upon the sewed cloth behind that point at which the gathers or plaits are successively completed and left, a reciprocating ruffling-blade for forming the gathers or plaits, and a supplemental presser part, with a spring or springs above the same, and creases or grooves in its lower surface at said point, substantially as herein specified, for the purposes set forth.

W. R. PARSONS.

Witnesses:

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