

H. S. Brown.

Ruffle.

N^o 43943.

Patented Aug. 23, 1864

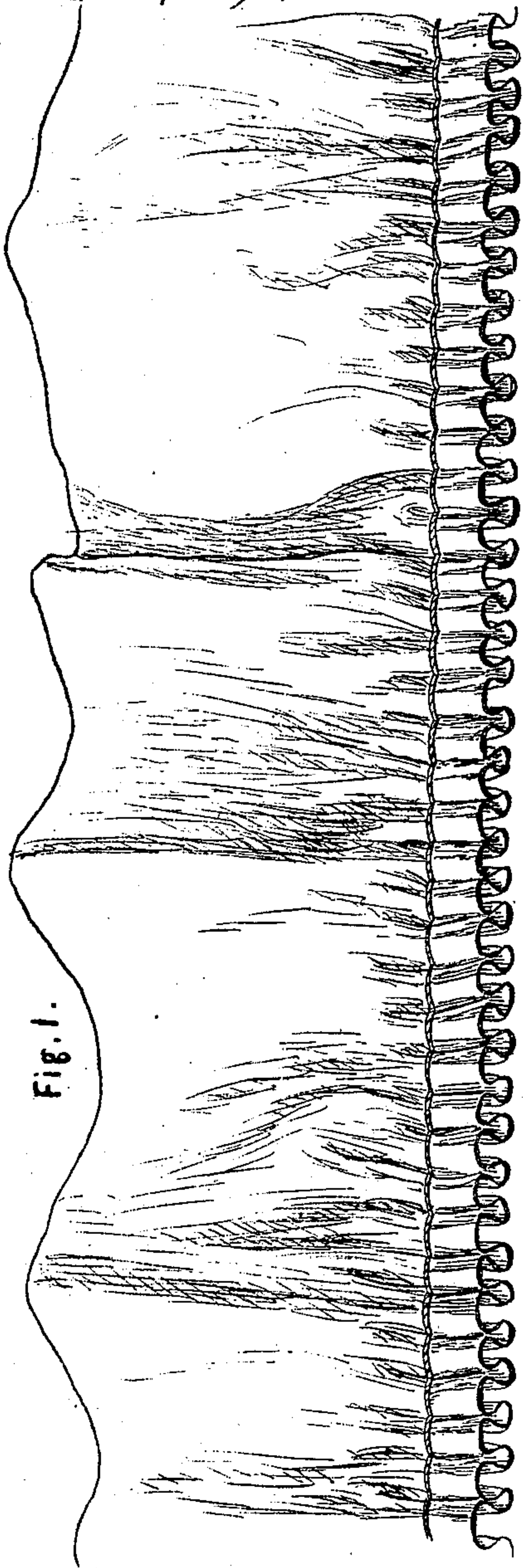
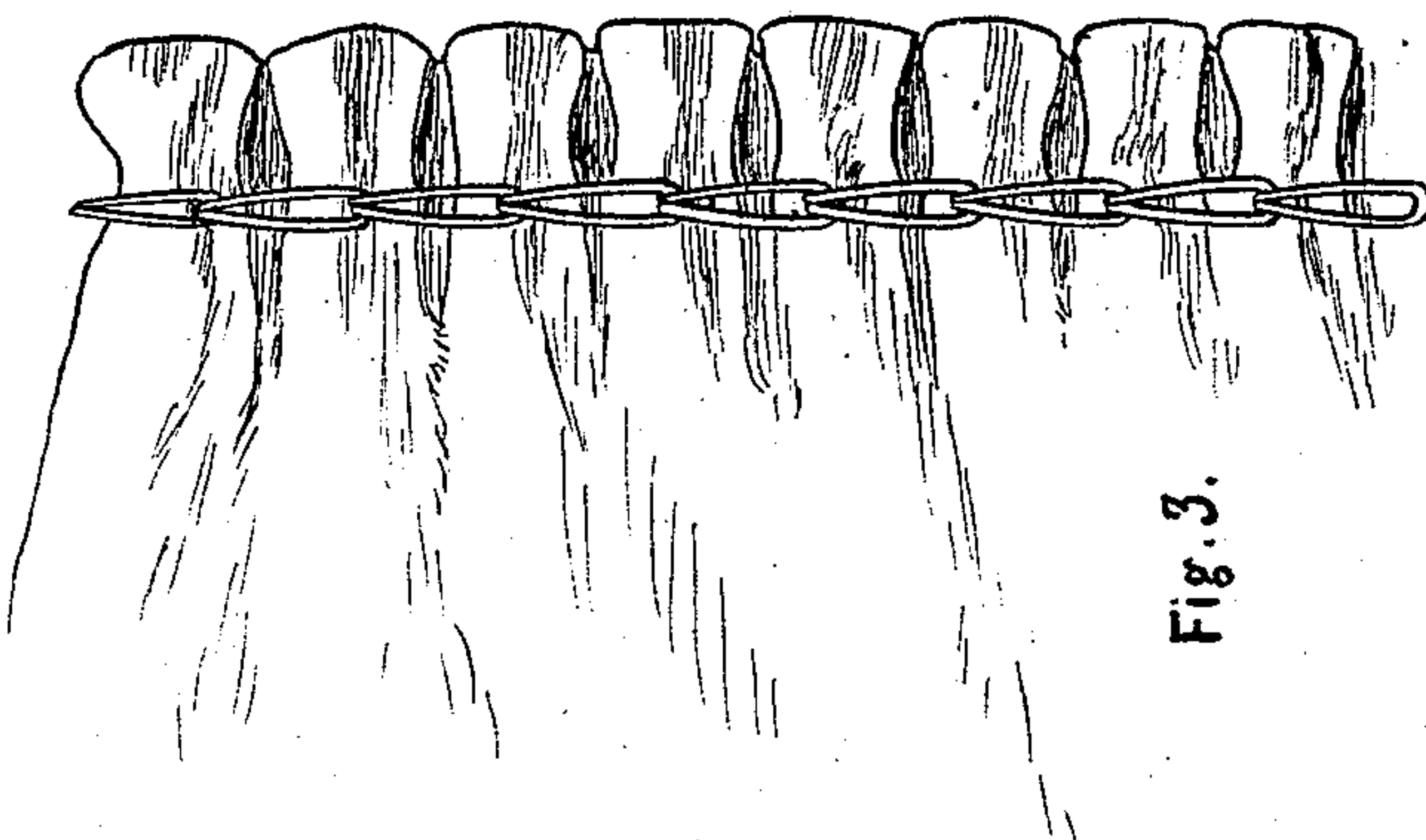
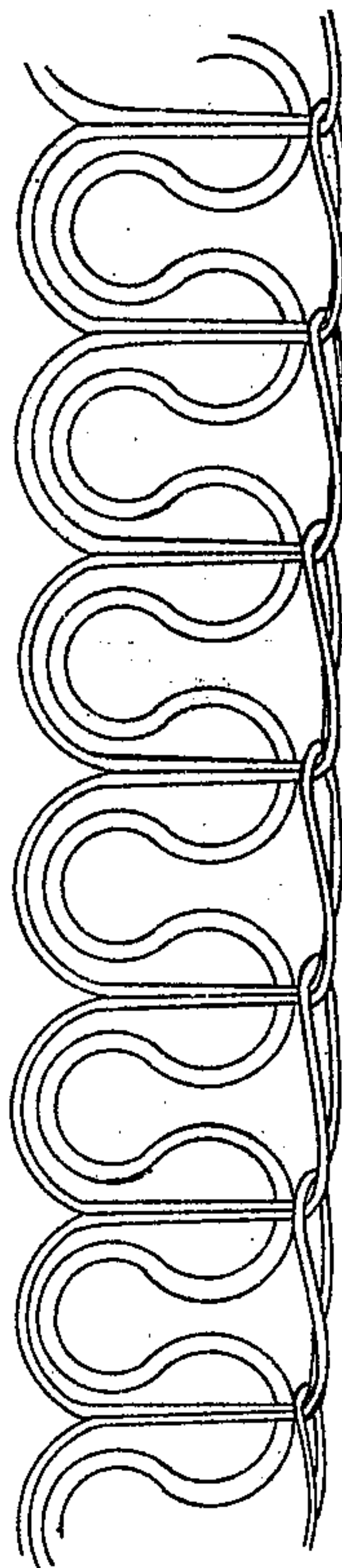


Fig. 2.



Witnesses.

Henry D. Stanton
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HENRY S. BROWN, OF NEW YORK, N. Y., ASSIGNOR TO ALFRED ARNOLD,
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IMPROVEMENT IN GATHERED FABRICS.

Specification forming part of Letters Patent No. 43,943, dated August 23, 1864.

To all whom it may concern:

Be it known that I, HENRY S. BROWN, of the city and State of New York, have invented a new and useful Improvement in Gathered Fabrics, such as ruffles and other gathered work, of which the following is a specification.

In my improvement the gathers differ from all others, inasmuch as they are held in place by a thread which passes through the cloth necessarily and invariably between the gathers, and the gathers resemble curved corrugations rather than more sharply-defined folds or plaits. The tendency to curved corrugations and the fixed uniformity with which the thread passes through the cloth between the corrugations are incidental to and result from the novel manner in which my improved fabric is made.

As I desire to claim no more than the novelty of my invention entitles me to, I will first describe the kinds of gathered or plaited fabrics heretofore known and the modes of making them, and then explain my improved gathered fabric, with the novel method of producing it, to which novel method it owes its peculiar form and superiority.

There are two modes of making gathers or plaits by hand—first, by the use of the gathering-thread, as shown in Figure 4 of the accompanying drawings, which constitute a part of this specification, where the straight horizontal thread *a* passes through the vertical plaits *b*. The second mode is to form one or more gathers or plaits without the use of the gathering-thread, and then sew them in place by any of the well-known hand-stitches, as shown in Fig. 5 of the accompanying drawings, where the plaits *b* lie nearly in a horizontal line and the thread *a* passes through them vertically, and the number of perforations made by the needle bears no fixed and uniform relation to the number of plaits or gathers, because the thread sometimes passes directly through a plait and at other times between two plaits.

Gathers or plaits formed by the feeding device of a sewing-machine, as described in the specification of Letters Patent dated September 25, 1860, No. 30,111, must necessarily be laid more or less flat and be sharply defined—that is to say, if a single piece of cloth be placed between the presser-foot and feeding device of a sewing-machine, and a portion of

said feeding device takes hold of and moves a portion of the cloth up to the needle, while both the portion of cloth which is being moved and the portion of cloth beyond the needle which is at rest are tightly clamped between two pieces of rigid metal, then the fold so formed must necessarily be sharply defined, and thus partake of the character of “plaited fabric,” rather than “gathered fabric with curved corrugations.” Again, it is obvious that no feeding mechanism can always lay minute plaits in the exact position necessary to insure the needle to perforate the cloth invariably between two gathers; but in practice the needle will often perforate the plaits themselves, and thus tend to chop up the cloth, causing more or less injury to the fabric.

In my improvement in “gathered fabrics, such as ruffles and other gathered work,” the gathers are made by the needle and thread of a sewing-machine. The cloth is fed along, as in ordinary sewing, in a plain ungathered state a distance equal to the throw of the feeder, which is equal to the length of a stitch before the gather is made. Then the gather is made by the needle and thread while in the act of drawing up the loop and completing the stitch. Hence each gather must necessarily and invariably be made from that portion of the cloth which is comprised between two perforations of the needle, and the tendency of each gather is to adapt its shape to the curve of the thread when drawn up.

To enable others skilled in the art to make this my improved manufacture, reference is made to the specification attached to Letters Patent for improvement in the gathering mechanism for sewing-machines, No. 42,043, granted to Alfred Arnold, my assignee, March 22, 1864, in the specification and drawings annexed to which the mechanical devices whereby I make said improved manufacture are fully described.

As a further description of my improved manufacture, I will here refer to the accompanying drawings in illustration thereof, and which drawings constitute a part of this present specification.

Fig. 1 is a perspective view of a piece of cloth gathered, wherein the thread invariably passes between the gathers, and wherein the cloth is represented by the darker colors and

the thread by red lines. Fig. 2 is a sectional view of Fig. 1, the darker lines representing the gathers and the red lines the thread. Fig. 3 represents the back or other side of Fig. 1. In all these figures the stitches represented are the "chain-stitch," so called; but any other of the known machine-stitches may be used for doing the work without materially changing the character of my manufacture.

An obvious superiority in my improved manufacture over all other gathered fabrics consists in the uniformity of its gathers, and in dispensing with the necessity of either scratching between each fold with a sharp-pointed instrument, as is done in some of the hand-made fabrics, or of crimping the cloth in sharply-defined folds or plaits, as is done by the devices for gathering or plaiting with the feeding mechanism of a sewing-machine, both of these methods tending to injure the fabric and lessen its durability.

That there may be no misapprehension as to the exact nature and extent of my invention, I will disclaim as follows:

First. I do not claim broadly as a new manufacture a ruffle or other gathered fabric, for this is not new.

Second. I do not claim as a new manufacture a ruffle or other gathered fabric wherein the gathers are formed on a straight thread, and thus allowed to slip on said thread like beads loosely strung, for this is not new.

Third. I do not claim broadly as a new manufacture a ruffle or other gathered fabric wherein the gathers are each held in place by a firm stitch, for I am aware that long before sewing-machines were known it was not infrequent in making some kinds of ruffles and other gath-

ered fabrics to form gathers by hand without the use of a gathering-thread, and fasten each gather firmly in place by a tight stitch. Therefore this is not new.

Fourth. I do not claim as a new manufacture a ruffle or other gathered fabric wherein the gathers are held in place by a "machine-stitch" in contradistinction to a "hand-stitch," for I am aware that this would be merely the application of a well-known stitch to a new use, or what is technically termed "a double use," and hence not patentable.

Fifth. I do not claim as a new manufacture an article wherein the fabric to be plaited or ruffled is operated upon so as to be ruffled by the feeding device and fastened by the stitching apparatus of a sewing-machine at one and the same operation, for this method, as quoted, is claimed in Letters Patent dated September 25, 1860, No. 30,111; and if it were not therein claimed this method would not, as I have already shown, produce the manufacture described by me.

What I do claim as my invention, and desire to secure by Letters Patent as a new manufacture, is—

A gathered fabric wherein each gather is held firmly in place by a thread which necessarily and invariably passes through the cloth between the gathers, and wherein the gathers resemble curved corrugations rather than more sharply-defined folds or plaits, substantially as herein described.

HENRY S. BROWN.

Witnesses:

HENRY B. STANTON,
SEDMON T. KEESE.