

No. 628,918.

Patented July 18, 1899.

W. BOWDEN.
TUCK SEWING MACHINE.

(Application filed Apr. 14, 1898.)

(No Model.)

2 Sheets—Sheet 1.

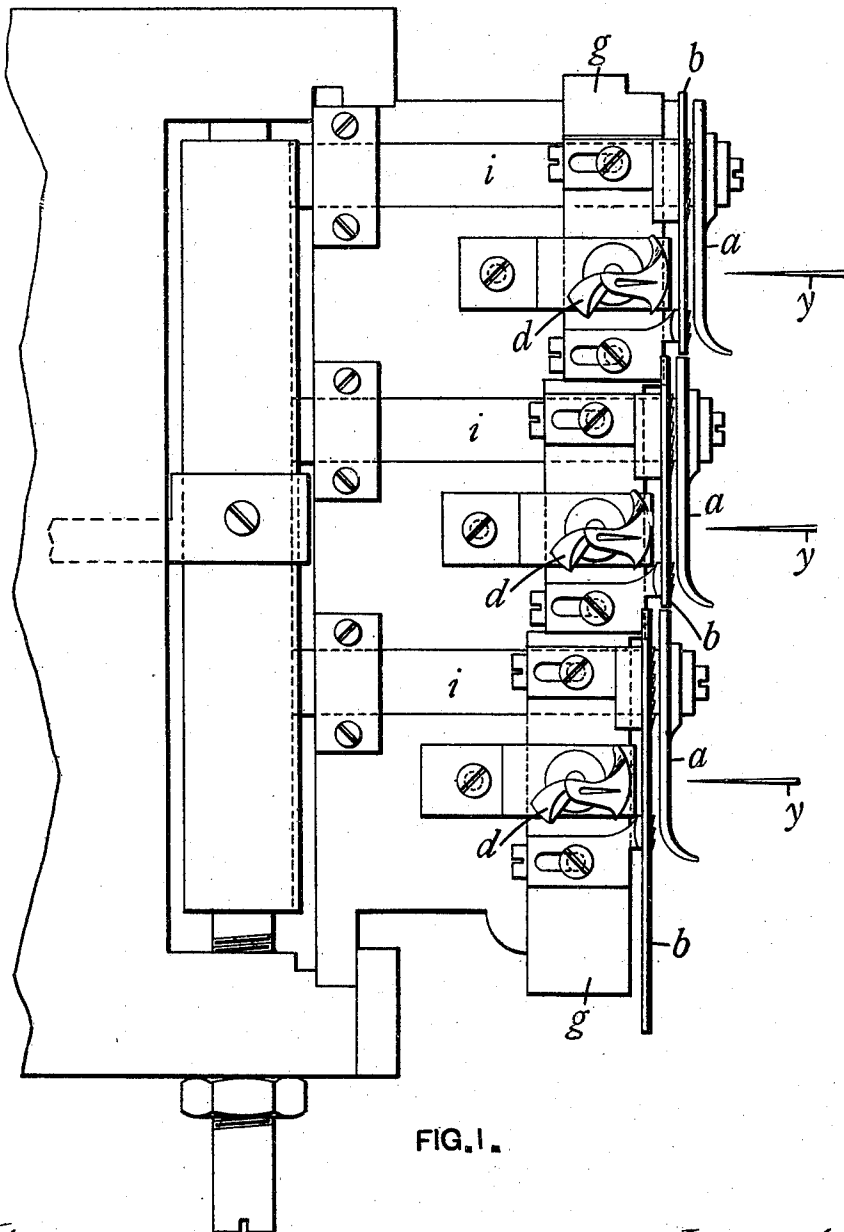


FIG. 1.

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2 Sheets—Sheet 2.

FIG. 2.

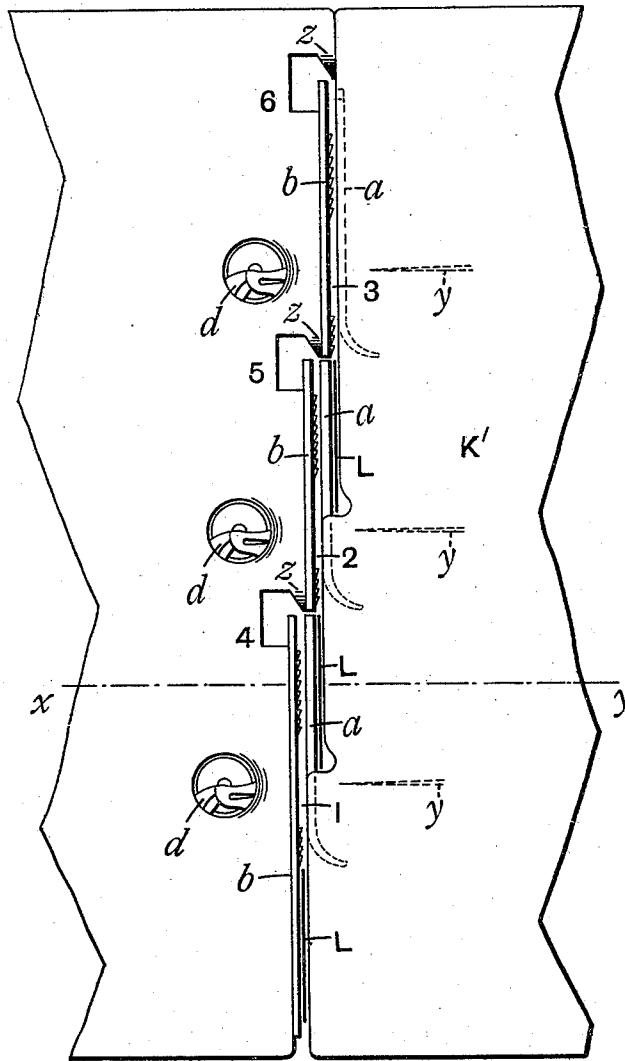


FIG. 3.

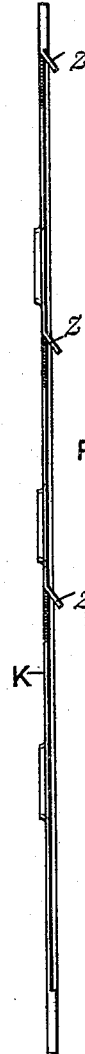
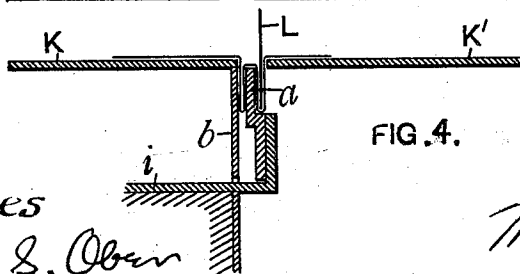


FIG. 4.



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TUCK-SEWING MACHINE.

SPECIFICATION forming part of Letters Patent No. 628,918, dated July 18, 1899.

Application filed April 14, 1898. Serial No. 677,590. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM BOWDEN, a citizen of Great Britain, residing at Manchester, in the county of Lancaster, England, have invented certain new and useful Improvements in Tuck-Sewing Machines, of which the following is a full, clear, and exact description.

In the specification of Letters Patent of the United States granted to me, No. 578,911, I have described a machine for sewing a plurality of tucks simultaneously in textile fabrics.

My present improvements have relation to my said former invention and have been designed with the objects of facilitating the formation of the tucks, for holding them during their formation, and for freeing the tucks from the channels more conveniently.

I will describe my present improvements with reference to the accompanying drawings, in which—

Figure 1 shows a plan view of that part of the machine in which the tuck-channels are situated with the cover-plates removed. Fig. 2 shows also plan views of the same part of the machine with the plates in position. Fig. 3 illustrates an edge view of one of the cover-plates. Fig. 4 represents a section along the line *xy*, Fig. 2.

The relative arrangement of the tuck-channels is the same as in the original machine, also the tucks are sewed through the channel by the needles *yy* in the same manner. The same letters of reference being employed as in the drawings accompanying my former specification, *aa* are the presser-feet; *bb*, the feed-plates; *dd*, the rotary hooks; *g*, the feed-bar; *ii*, the presser-feet bars, and *y* the needles. *LL* are the depressors. The channel sides and the curved guides at the ends of the channels are now discarded. The channels are now constituted by the edges of the cover-plates *K K'*, Fig. 2, and by the modified presser-feet *a a* and feed-plates *b b*, Fig. 1.

The feed-plates are fixed and have holes formed through them for the feeders and for the passage of the needles. They are substantially identical with the feed-plates in the existing machine. The presser-feet have a considerably greater length and are curved at their forward ends. It will be seen that as at present arranged the presser-foot of one

channel is in line with the feed-plate of the next following channel. Each channel is thus lengthened.

By reference to Fig. 2 it will be seen that the first channel (indicated by the numeral 1) extends from the front edge of the cover-plates to the point 4, where a part of the plate *K* is cut away, leaving a triangular projection *z*, which is slightly bent downward. The second channel 2 commences immediately behind the needles of the first channel and extends to the point 5, which is constructed and arranged similarly to the part 4. The third channel 3 and subsequent channels, if any, repeat. Instead of the second channel commencing behind the terminus of the first channel each succeeding channel therefore considerably overlaps the preceding channel. Each depressor *L* after the first is so placed within its channel that it occupies a position in advance of the rear end of the preceding channel. A result is that the first tuck is still held in the first channel while the second tuck in the second channel is being formed. This gives a far greater amount of certainty to the work. The curved guides at the ends of the channels in the original machine while serving their purpose effectively did not always fold the tuck nicely as it left the channel. The deviator or tuck-folder *z* not only lifts the sewed tuck, but folds it to the left under the fabric.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. In a tuck-sewing machine in which the tucks are sewed in a series of channels, the combination of a suitable bed-plate, a feed-plate and presser-foot forming the walls of each tuck-channel, the back part of the presser-foot forming part of the side of one channel being in line with the feed-plate of the next adjacent channel, means for folding the tuck in said channel and stitch-forming mechanism including a horizontally-arranged needle adapted to pass through the walls of the channel, substantially as described.

2. In a tuck-sewing machine in which the tucks are sewed in channels, the combination of a suitable bed-plate, presser-feet each of which forms part of one side of a preceding

channel and part of the opposite side of the next folding channel, means for folding the tuck in said channel and stitch-forming mechanism including a horizontally-arranged needle adapted to pass through the walls of the channel, substantially as described.

3. In a tuck-sewing machine in which the tucks are sewed in a series of channels, the combination with a suitable bed-plate provided with channels, tuck-formers one for each channel each of which after the first occupies a position within its channel that is in

advance of the rear end of the preceding channel, means for holding the tuck to receive the stitches, a stitch-forming mechanism including a horizontally-arranged needle adapted to pass through the walls of the channel, substantially as described.

In witness whereof I have subscribed my signature in presence of two witnesses.

WILLIAM BOWDEN.

Witnesses:

GEO. HEYS,

ARTHUR MILLWARD.