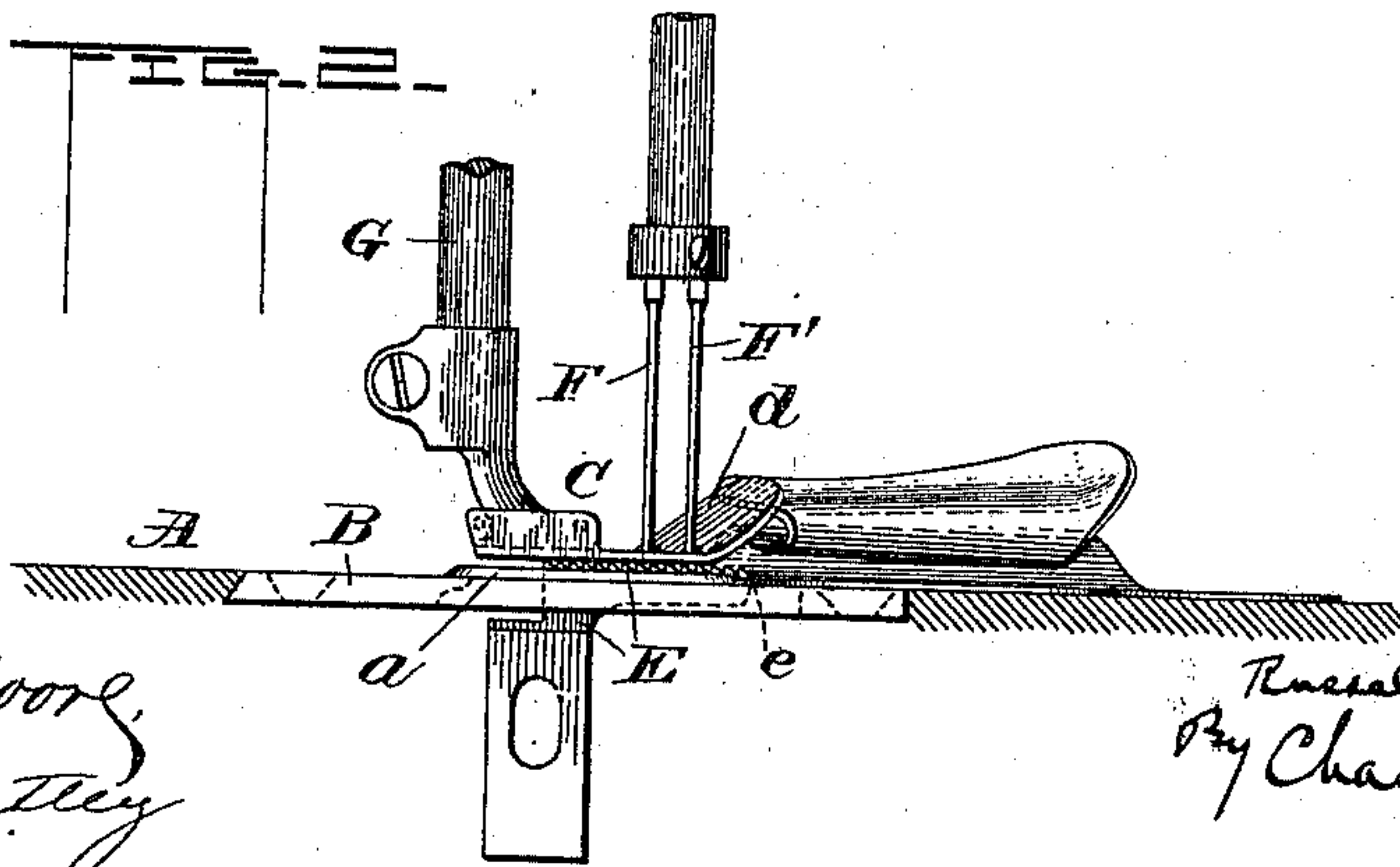
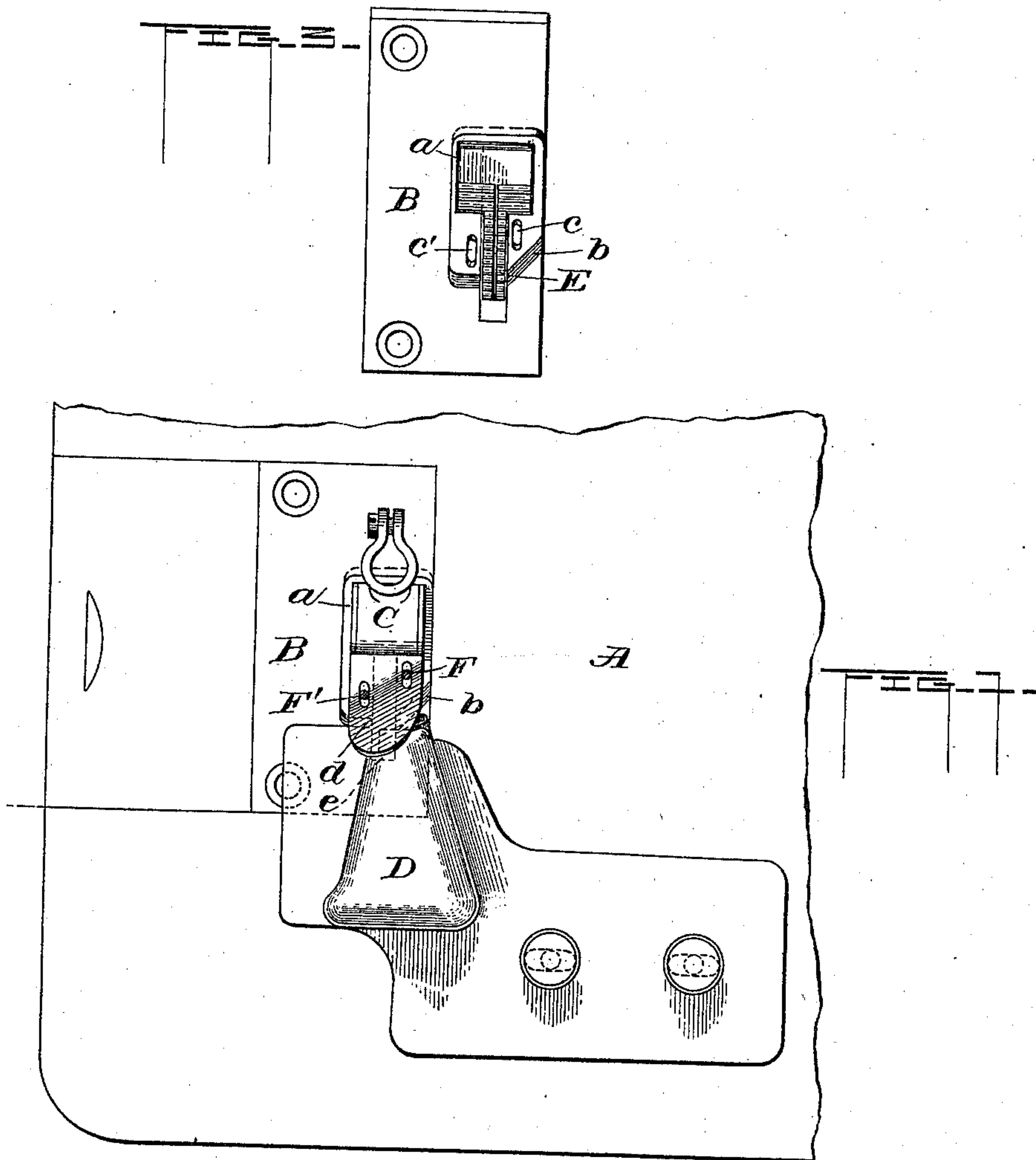


(No Model.)

R. G. WOODWARD.
GUIDING DEVICE FOR SEWING MACHINES.

No. 598,353.

Patented Feb. 1, 1898.



Witnesses
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UNITED STATES PATENT OFFICE.

RUSSEL G. WOODWARD, OF WAUKEGAN, ILLINOIS, ASSIGNOR TO THE UNION
SPECIAL SEWING MACHINE COMPANY, OF CHICAGO, ILLINOIS.

GUIDING DEVICE FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 598,353, dated February 1, 1898.

Application filed December 23, 1893. Serial No. 494,582. (No model.)

To all whom it may concern:

Be it known that I, RUSSEL G. WOODWARD, a citizen of the United States, residing at Waukegan, in the county of Lake, State of Illinois, have invented certain new and useful Improvements in Sewing-Machines, of which the following is a description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates to an improvement in sewing-machines, and especially to a construction of presser-foot, throat-plate, and cloth-folding device coöperating with a plurality of needles arranged in such a way that a line joining them is at an angle to the line of feed.

The invention consists in the matters hereinafter described, and referred to in the appended claims.

In the drawings which illustrate the invention, Figure 1 is a plan view of a cloth-plate of a sewing-machine, showing my invention applied thereto. Fig. 2 is a side elevation of the same, partly in section. Fig. 3 is a plan view of the throat-plate detached.

In the drawings, A represents the cloth-plate of the machine; B, the throat-plate; C, the presser-foot; D, the folder or hemmer, and E the feed-dog, the last being of well-known construction.

F F' are the inner and outer needles, respectively, and, as shown, are arranged in a vertical plane forming an oblique angle with the line of feed.

The throat-plate B is secured to the cloth-plate in the usual way and has slots for the passage of the feed-dog. It has a raised portion *a* and openings *c c'*, arranged in a vertical plane forming an oblique angle with the line of feed, and the raised portion *a* of the throat-plate in front of needle F, is cut off at an angle, as shown at *b*, corresponding, substantially, to the angle at which the line-joining needles and the line-joining slots in the throat-plate are arranged respecting the line of feed; or, in other words, the line of the cut-off portion of the throat-plate is approximately parallel with a line joining the slots *c c'* or the needles F F'.

The presser-foot C is secured to the bar *c*

in the usual manner and has an upwardly-turned toe *d*, the base of said upturned portion being formed on an angle corresponding to that of the arrangement of the needle.

In combination with my throat-plate I do, however, propose to use a cloth-folding guide or hemmer D of peculiar construction. It is provided with a slot *e*, registering with the front portion of the slot in the throat-plate through which the feed-dog passes, and its inner end, or that portion adjacent to the needles, and from which the folded or hemmed cloth emerges, is cut off at an angle corresponding to the angle of the other parts described. By so constructing the folder and throat-plate it will be seen that the former may lie up close to the needles, so that each side of the end of the folder is equidistant from its respective needle, and the goods, when passing from the same, will be seized by the feed, and that portion of the fabric which is to be sewed by the hindmost needle will be stitched thereby as soon after its passage from the folder as that portion stitched by the forward needle, thereby preventing the danger of twisting and distorting the goods, which would exist were the forward needle allowed to make a number of stitches through one part of the goods before the other part had been stitched at all, or were one part of the goods required to be fed a considerable distance after its passage from the folder before it came under the action of its needle.

What I claim is—

1. In a sewing-machine, the combination with a plurality of needles, so arranged that a line joining them is at an oblique angle to the line of feed, of means for holding the goods on the bed-plate, a throat-plate having a raised portion, the front of which is formed on an angle to the line of feed substantially the same as the angle of the line joining the needles, and a cloth-guide, substantially as described.

2. The combination, in a sewing-machine having a plurality of needles so arranged that a line joining them is at an oblique angle to the line of feed, a presser-foot, a throat-plate having a raised portion, the front of which is formed at a corresponding angle to the line of feed, and a cloth-guide having its portion

nearest the needles also cut off at substantially the same angle to the line of feed, substantially as described.

3. A sewing-machine comprising a plurality
5 of needles, so set that a line joining them is at an oblique angle to the line of feed, and a throat-plate provided with a raised portion, the front of which is formed on a line approximately parallel with the line joining said
10 needles, substantially as described.

4. The combination in a sewing-machine having needles so arranged that a line joining them is at an oblique angle to the line of feed, of a presser-foot having its front bearing ex-

tremity formed on a line approximately parallel with the line joining the needles, a throat-plate having a raised portion, the front of which is also at an oblique angle to the line of feed, and a cloth-folding device having its portion nearest the needles cut off at a corresponding angle to the line of feed; substantially as described. 15 20

In testimony whereof I affix my signature in presence of two witnesses.

RUSSEL G. WOODWARD.

Witnesses:

CHESTER MCNEIL,
MORTON MCNEIL.