J. P. MARSTON.

Sewing Machine Guide.

No. 17,224. Patented May 5, 1857.

Fig. 1.

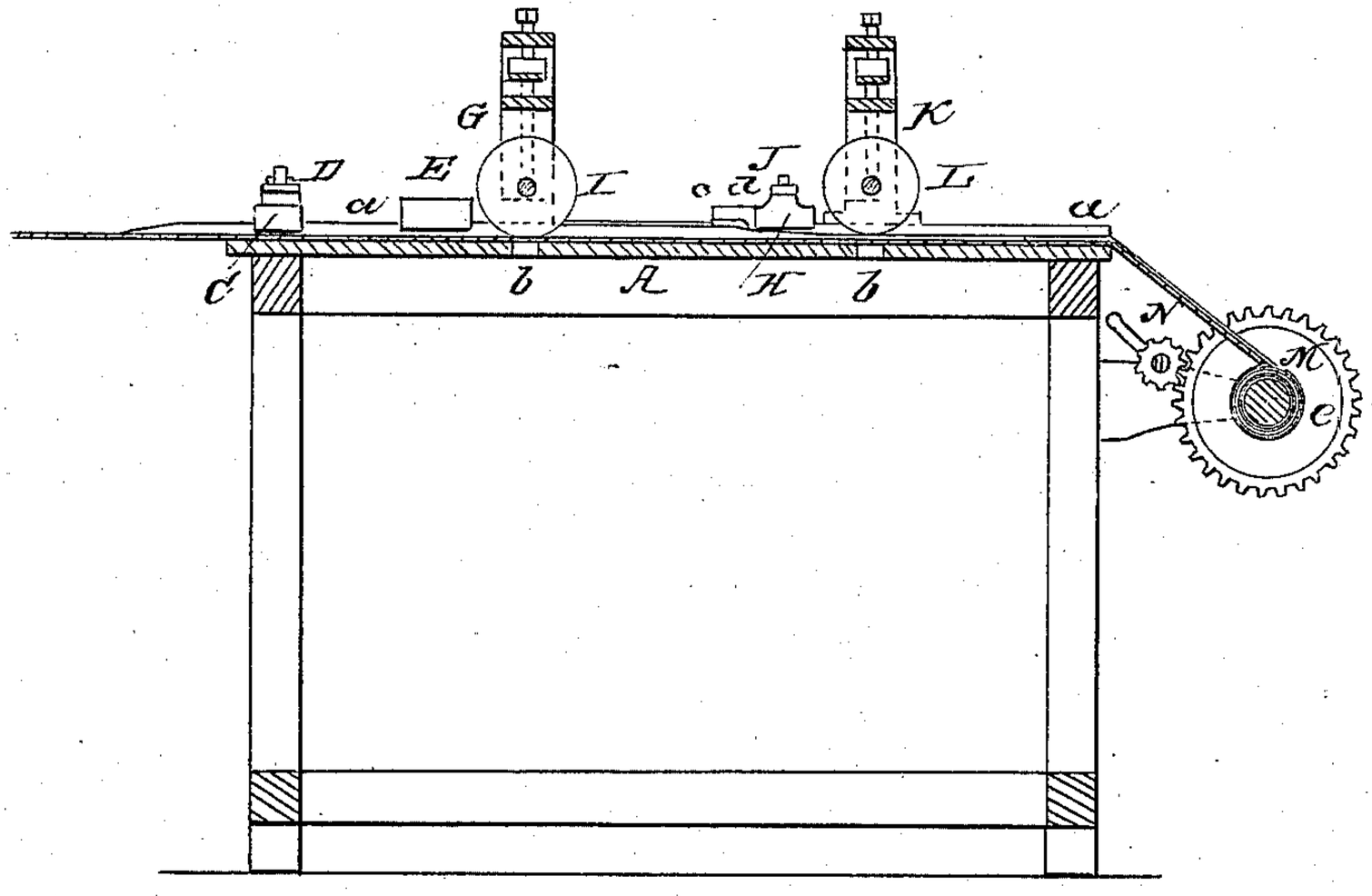


Fig. 2

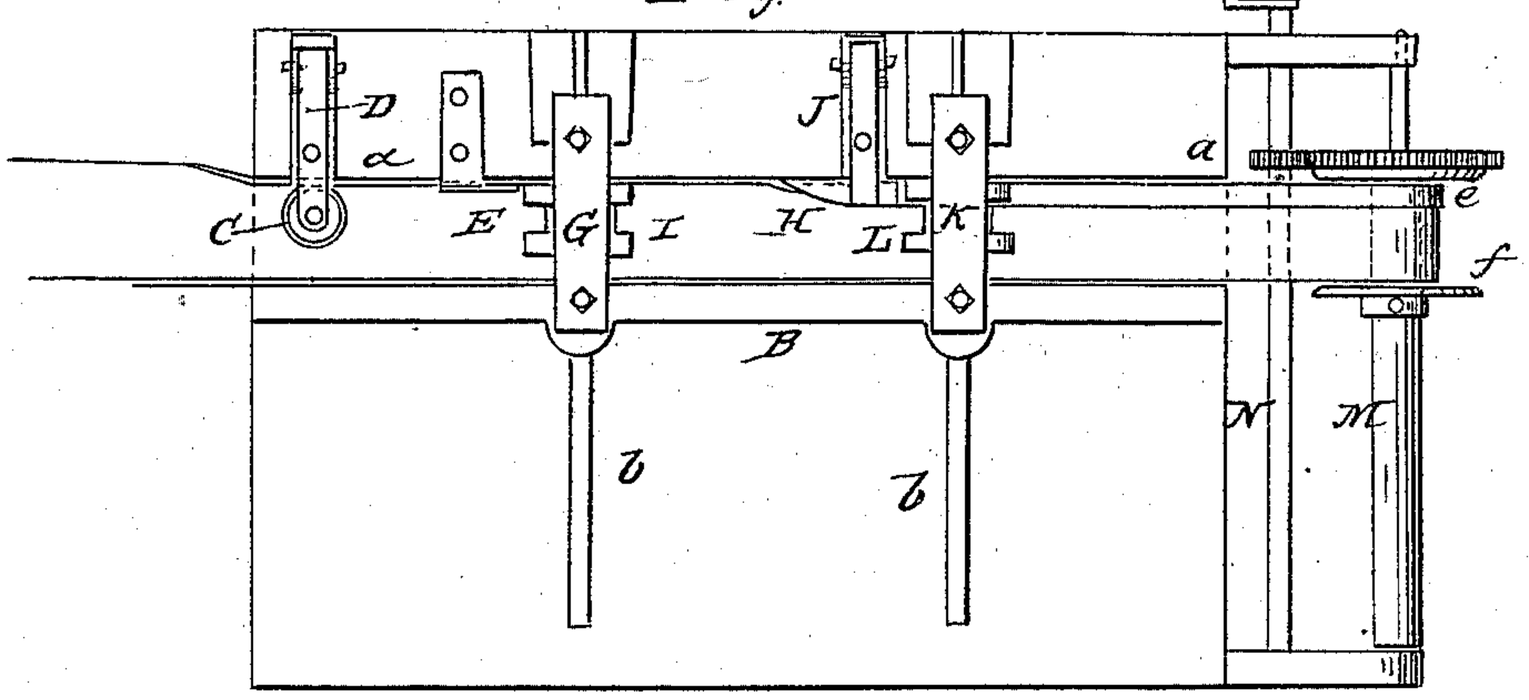


Fig. 3

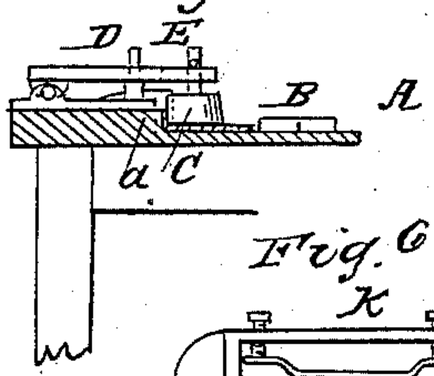


Fig. 4

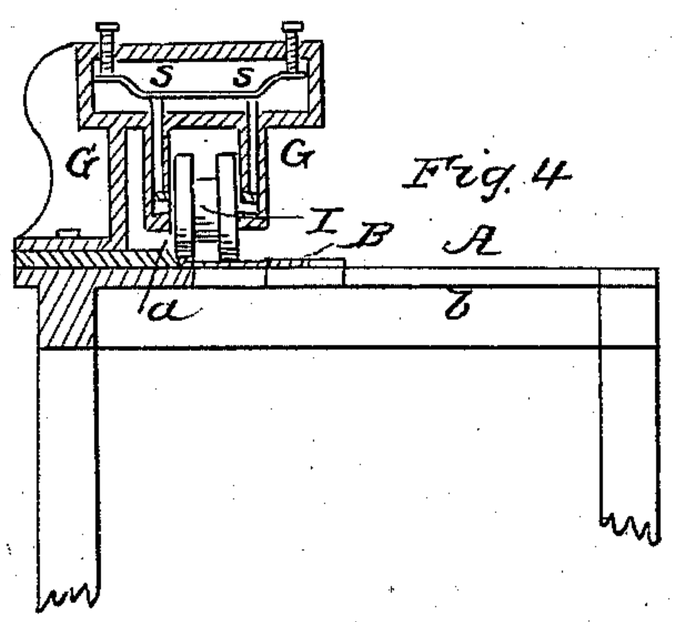


Fig. 5

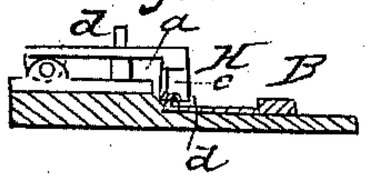
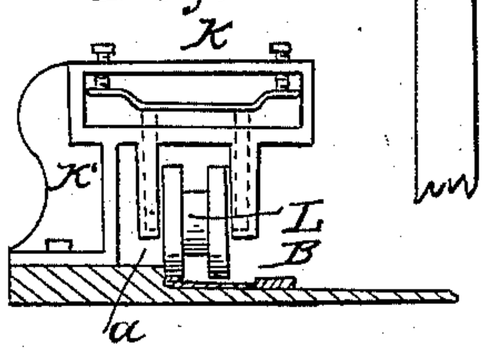


Fig. 6



UNITED STATES PATENT OFFICE.

JOHN P. MARSTON, OF CHARLESTOWN, MASSACHUSETTS.

IMPROVEMENT IN MACHINES FOR TURNING THE EDGES OF CLOTH.

Specification forming part of Letters Patent No. **17,224**, dated May 5, 1857.

To all whom it may concern:

Be it known that I, JOHN P. MARSTON, of Charlestown, in the county of Middlesex and State of Massachusetts, have invented a new and useful Machine for Turning the Selvages or other Edges of Cloth, for sail-making and other purposes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a longitudinal vertical section, showing all the working parts of the machine. Fig. 2 is a plan of the same. Figs. 3, 4, 5, and 6 are transverse vertical sections of different portions of the machine.

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

This invention consists in a novel combination of guides and rollers for turning over and pressing down the edges of cloth. It is particularly applicable to the business of sail-making, but may be employed in other operations.

To enable others to make and use my invention, I will proceed to describe its construction and operation.

A is a horizontal table, having a stationary straight guide-piece, *a*, extending along one side of it from end to end, said guide-piece standing up at a right angle to the face of the table, as shown in the transverse sections, Figs. 3, 4, 5, and 6.

B is an adjustable straight-edged guide-piece, that can be secured upon the table A at any distance from the stationary guide-piece *a* by set-screws or their equivalents passing through slots *b b* in the table. This adjustable guide-piece is intended to be set parallel with the edge of the stationary guide-piece *a*, and at a distance therefrom equal to the width of the piece of cloth whose edge is to be turned, minus the width of the margin that is to be turned with the edge.

C, Figs. 1, 2, and 3, is a roller with an upright axis, having a single journal at the top fitted into an arm, D, which hangs over the edge of the stationary guide *a*, near one end of the table A, said roller having a flat bottom, but having its sides slightly concave, and being free to rest with all its weight upon the table, with its lower edge nearly close to the face of the stationary guide *a*. This roller is to give the first part of the turn to the edge of the cloth as it is drawn or otherwise moved over the table in the direction of the arrow shown in Fig. 1, with one edge against the guide B, and the said roller comes into operation on the cloth almost as soon as it arrives upon the table, causing the edge next the guide *a* to turn upward against the said guide, as shown in Fig. 1, in which, as in all the other figures, the cloth is shown in red outline.

E is a guide, consisting of a thin plate of metal attached to a stationary arm, F, which hangs over the edge of the guide *a*, the said guide E standing in a vertical position and nearly close to the face of the guide *a*, not being quite parallel therewith, but being a little closer at the end farthest from the roller C, so as to make the space between it and the face of the guide *a* slightly tapering. The marginal portion of the cloth, which has been turned up by the roller C, passing between the guide *a* and that E, is flattened, and the turn brought more nearly to an angular form.

G (see Figs. 1, 2, and 4) is a stationary frame secured to the table A, and containing two journal-boxes for a roller, I, which has its axis arranged parallel with the table, but in a direction transverse thereto, the said journal-boxes having springs *s s* applied to them to press the roller down upon the table. The roller I runs so close to the face of the guide *a* that it presses the cloth closely into the angle formed between the face of the said guide and the face of the table, and thus completes what has been partially done by the guide E—viz., brings the turn in the cloth to a sharp angular form. The above roller derives motion through the friction of the cloth as the latter is drawn along the table.

H, Figs. 1, 2, and 5, is another guide, arranged near the face of the guide *a*, but not quite parallel therewith, the end nearest the roller I being nearest to the face of *a*, and in fact almost or quite touching the same. This guide H, which is attached to a swinging arm, J, so as to enable it to rise and fall freely, is made of a wedge shape in its horizontal section at the end next the roller I, as shown at *c* in Fig. 2, and at the same end the lower face

is beveled transversely, as shown at *d* in Figs. 1 and 5; but the remaining portion of the lower face is flat, and parallel, or nearly so, with the table. This guide commences the turning down of the marginal portion turned up by the two rollers, C I, and plate-guide F. The turned-up marginal portion of the cloth, coming in contact with the sharp wedge-shaped end *c*, is pushed away from the guide *a a*, and as the cloth advances the said marginal portion is turned gradually over by passing the oblique portion *d* of the said guide, until, when it arrives under the flat portion of the lower face of the guide, it is nearly laid down flat.

K, Figs. 1, 2, and 6, is a frame like G, carrying a roller, L, of similar character, and having pressure applied to it in a similar manner, for the purpose of pressing down flat the marginal portion that has been turned down by the successive operation of the roller C, guide E, roller I, and guide H.

M is the barrel, and N the driving-shaft, of a windlass at the end of the table next the roller L, for the purposes of drawing the cloth along to effect the turning of the edge and of winding it up as fast as it is finished. This windlass has on its barrel a fixed flange, *e*, whose face is in the same plane with the guide *a*, and also a movable flange, *f*, which is always adjusted to bring its face in the same plane as the face or edge of the movable guide B.

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

The combination of the guides *a* and B, roller C, guide E, roller I, guide H, and roller L, substantially in the manner and for the purpose specified.

JOHN P. MARSTON.

Witnesses:

JAMES K. FROTHINGHAM,

HUGHES CUNNINGHAM.