C. TYSON.
Water Tube Boiler.

No. 196,844. Patented Nov. 6, 1877.

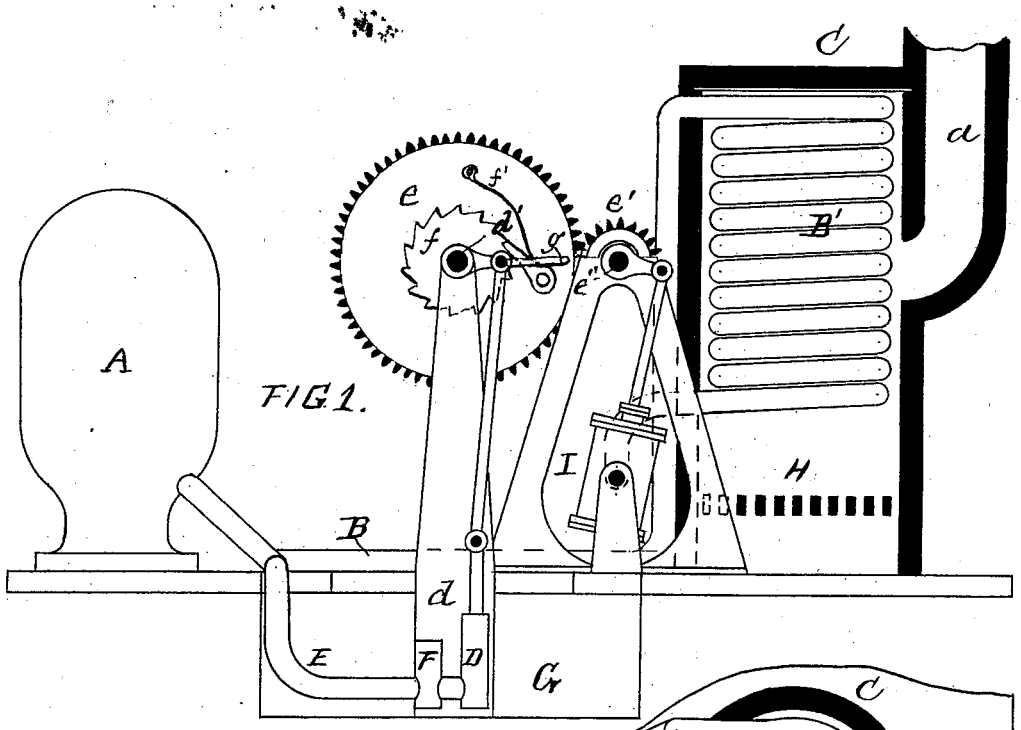


FIG. 1.

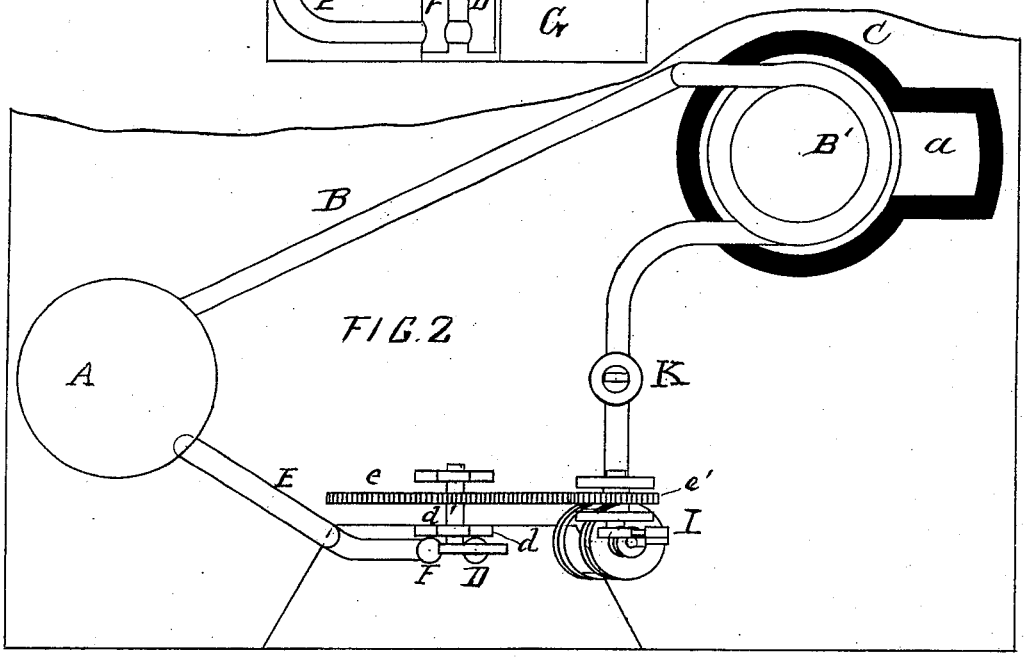


FIG. 2.

WITNESSES:
Albert D. Walker
Chas. F. Van Horn

INVENTOR
Charles Tyson
by Francis D. Pastorius
ATTORNEY.

2 Sheets—Sheet 2.

E. A. VANCE.
Tucker.

No. 196,845. Patented Nov. 6, 1877.

Fig: 3.

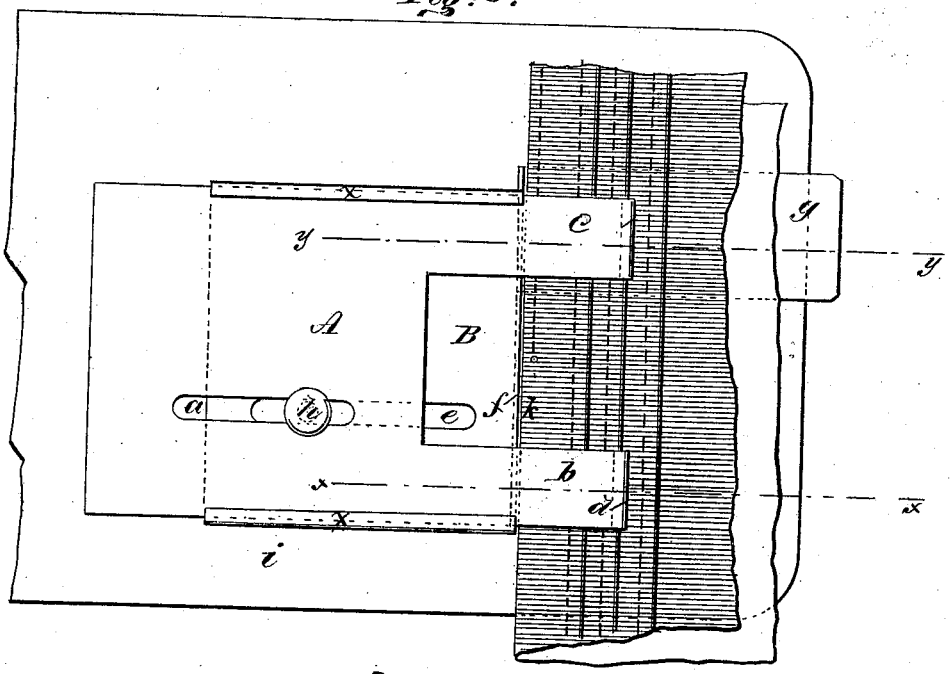


Fig: 4.

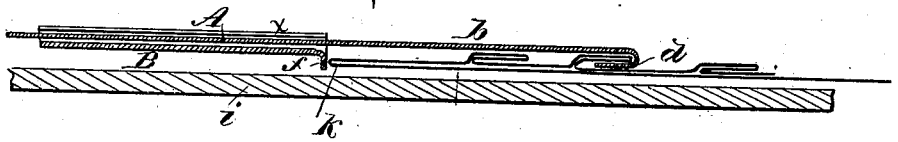
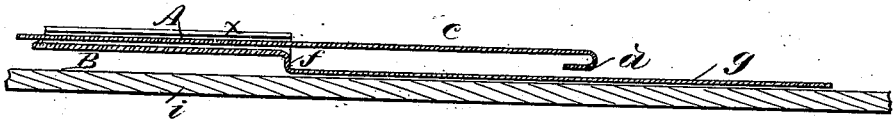


Fig: 5.



WITNESSES:

Chas. Nida
Alex F. Roberts

INVENTOR:
Eliza A. Vance
BY Munn & Co
ATTORNEYS.

UNITED STATES PATENT OFFICE.

ELIZA ANN VANCE, OF GALLIPOLIS, OHIO.

IMPROVEMENT IN TUCKERS.

Specification forming part of Letters Patent No. **196,845**, dated November 6, 1877; application filed June 11, 1877.

To all whom it may concern:

Be it known that I, ELIZA A. VANCE, of Gallipolis, in the county of Gallia and State of Ohio, have invented a new and Improved Tucker; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 is a plan view of my improved tucker. Fig. 2 is a side elevation of the same. Fig. 3 is a plan view, showing the work passing through the tucker. Fig. 4 is a longitudinal section, taken on line *x x* in Fig. 3. Fig. 5 is a longitudinal section, taken on line *y y* in Fig. 3, with the cloth removed.

The object of my invention is to provide a simple and inexpensive tucker for forming tucks of various widths, either spirally in a continuous or endless piece of goods, or in rows in the ordinary manner.

The tucker is composed of two movable parts, A B, both of which are firmly clamped to the cloth-plate of the sewing-machine by means of the ordinary gage-screw. The part A is movably attached to B by flanges *b b* upon the part B, to regulate the distance apart of the tucks, and the part B is moved upon the cloth-plate to adjust the width of the tuck.

The part A is provided with a slot, *a*, and with arms *b c*, the outer ends of which are turned under, forming lips or hooks *d*.

In the part B there is a slot, *e*, corresponding with the slot *a* in the part A. The edges of the part B are turned over the edges of the part A, forming a guide, in which the latter may slide.

The edge of the part B is turned downward, forming a shoulder, *f*, which is parallel with the hooks or lips *d*, and guides the folded edge of the work as the tuck is stretched.

An arm, *g*, extends from the shoulder *f* under and beyond the arm *c*, and lies in contact with the cloth-plate *i* of the sewing-machine.

The tucker is attached to the sewing-machine by the binding-screw *h*, which passes through the slots *a e*, and binds the parts A B securely to the cloth-plate. The arm *b* is placed in front of the needle and presser-foot, and the arm *c* behind it.

The operation is as follows: A piece of cloth is folded and passed through the tucker under the arm *b* and presser-foot of the machine, and between the arms *c g*, with its folded edge *k* in contact with the shoulder *f*, the said shoulder being removed from the needle a distance equal to the width of the tuck to be made. If a wide tuck is formed, it is folded down upon the upper surface of the cloth, and its folded edge is permitted to run in the hooks *d*, while a new tuck is folded and passed through the tucker, with its folded edge in contact with the shoulder *f*. When the tucks are narrow it may be necessary to form two of them before one can be used as a guide in forming the others.

If the ends of the piece of cloth upon which the tucks are formed are united, the tucks may be made continuously in a spiral line, it being only necessary to exercise care in forming the first tuck, so that when it overlaps itself, after passing once around the endless piece, the proper distance will be maintained. The distance between the tucks is adjusted by moving the hooks *d* toward or away from the needle.

I do not claim, broadly, a tucker formed of two slotted plates, one having an arm provided with a hook; but

What I do claim is—

The improved tucker formed of the two slotted plates A B, provided with coincident slots *a e*, and secured together by flanges *x x*, the plate A having the two parallel arms *b* and *c*, each provided with hooks *d d*, and the plate B having the ledge *f* and arm *g* extending under arm *c d*, all constructed and arranged, as shown and described, to form a new article of manufacture.

ELIZA ANN VANCE.

Witnesses:

ELIZA V. HEBARD,

A. VANCE.