W. A. McLaughlin.

Shirt-Cutting Mach.

No. 83,870. Patented Nov. 10, 1868.

Fig. 1.

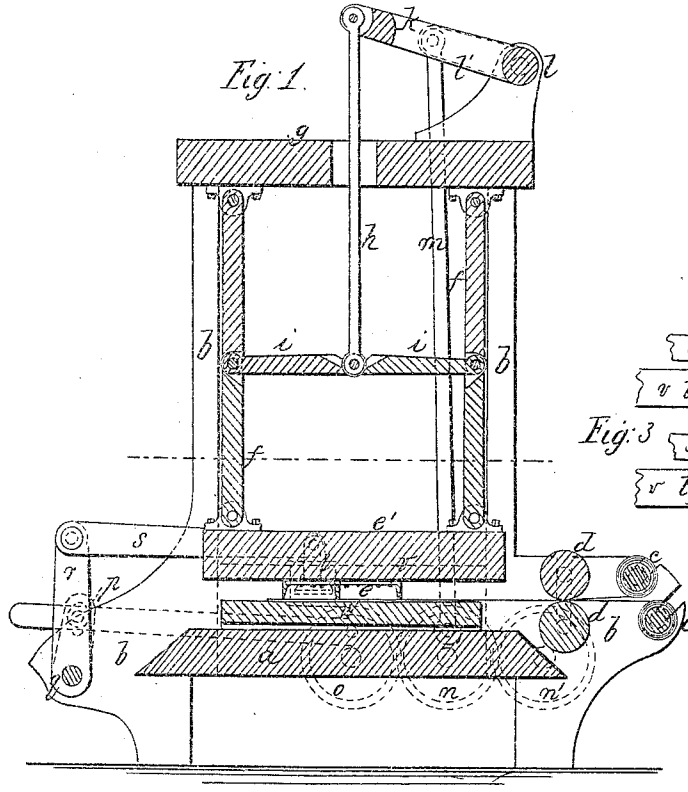


Fig. 3

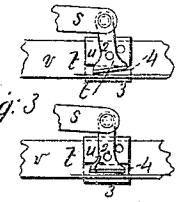
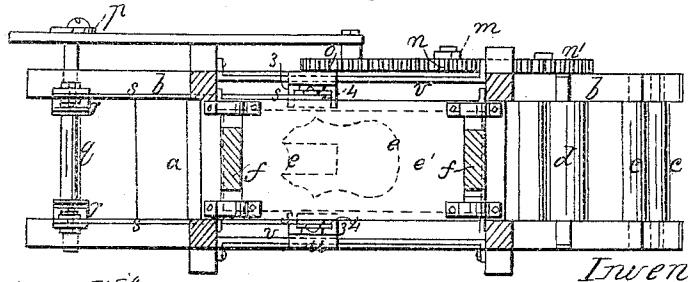


Fig. 2.



Witnesses;
Chas. H. Smith
Geo. D. Wales

Inventor;
W. A. McLaughlin
per Lemuel W. Serrell
Atty

E. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

United States Patent Office.

W. A. McLAUGHLIN, OF NEW YORK, N. Y.

Letters Patent No. 83,870, *dated November* 10, 1868.

IMPROVEMENT IN MACHINES FOR CUTTING OUT GARMENTS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, W. A. McLAUGHLIN, of the city and State of New York, have invented, made, and applied to use a certain new and useful Improvement in Machinery for Cutting Out Shirts and Similar Articles; and I do hereby declare the following to be a full, clear, and exact description of the said invention, reference being had to the annexed drawing, making part of this specification, wherein—

Figure 1 is a vertical longitudinal section of my said machine;

Figure 2 is a sectional plan of the same; and

Figure 3 is an elevation of the clamp, for drawing the material along.

Similar marks of reference denote the same parts.

Heretofore envelopes and other articles have been cut out of paper, leather, &c., by means of a properly-shaped knife pressed upon the material to be cut out.

The nature of my said invention consists in a peculiarly-arranged feeding-clamp, combined with a reciprocating cutter, and with rollers, for presenting several thicknesses of material to the action of the cutter, so that pieces of muslin or cloth required to be cut out in the manufacture of shirts, &c., can be separated from the strip or length of fabric as it is presented smoothly to the action of said cutters.

In the drawings, *a* is a bed, carrying, at one end, by side frames *b*, the rollers *c c*, upon which the muslin or other material is to be wound. There may be any desired number of these rollers.

d d are pressure-rollers, that serve to press the layers of cloth together, and guide the same into the machine.

e is a knife or series of forms, made with cutting-edges of the character and shape desired, and attached to the under side of the follower *e'*, and *f f* are toggles, connected at their lower ends with the followers *e'*, and at their upper ends to the head-block *g*, that is sustained by the frames *b b*.

h is a connecting-rod to the links *i i*, passing to the toggles *f f*, and this rod *h* receives its motion from the arm *k*, shaft *l*, arm *l'*, and pitman *m*, to the crank-pin wheel *n*, that is driven by competent power applied to the gear-wheel *n'*, or otherwise, so that by this means the toggles *f f* are actuated to give motion to the follower *e'*, and cause the knife *e* to rise from or give pressure to the fabric, and cut out the properly-sized and shaped pieces, and when the follower and cutter are raised, the feed takes place by the mechanism next described.

The wheel *o* receives motion from the wheel *n*, and, by its crank-pin and connecting-rod to the arm *p*, gives a rocking motion to the shaft *q*, from which two arms *r r* extend upward, and have, at their upper ends, bars *s s*, jointed to the arms and the feeding-clamp *t*.

Each feeding-clamp *t* is made as a lever, hung on a fulcrum, 2, upon the slide *u*, that is sustained by and moves upon the bar *v*.

The lower part of the slider *u* is formed as a flange, 3, upon which the edge of the muslin or fabric rests.

When the slider *u* and clamp *t* are being driven back toward the rollers *d*, there is a space between the flange 3 and the flanged end 4 of the lever-clamp *t*, so that the fabric is not acted upon, but, when the motion is in the other direction, the fabric is firmly seized between and moved along by the surfaces 3 and 4.

The adjustment at the end of the arm *p* allows the extent of movement given to the cloth to be regulated so as to supply only the quantity necessary for the particular shape and size of article being cut out.

The edge of the cutter comes down upon the press-board *w*, which, for convenience, may be removable, and is to be of any suitable material, and I place a sheet of rubber between the same and the bed *a*, in order that the press-board *w* may yield slightly, and be less liable to injure the knives or cutters, and insure a perfect cut.

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

The slider *u* and clamping-lever *t*, constructed as set forth, and actuated by the arms and rock-shaft *q*, in combination with the follower *e'* and toggles *f*, actuated as specified, to operate the cutters when the feeding-device is not acting upon the cloth, as set forth.

In witness whereof, I have hereunto set my signature, this 11th day of August, 1868.

W. A. McLAUGHLIN.

Witnesses:

CHAS. H. SMITH,

LAWRENCE WALKER.