H. ALBRECHT.

FLUTING-MACHINE.

No. 169,327. Patented Nov. 2, 1875.

FIG. 1.

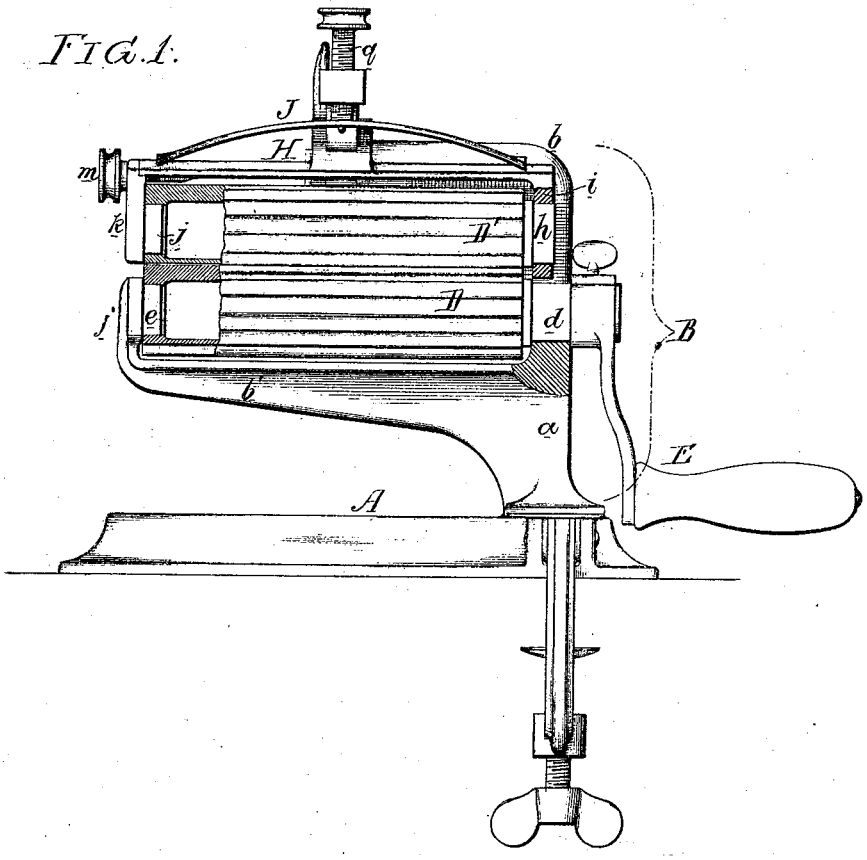
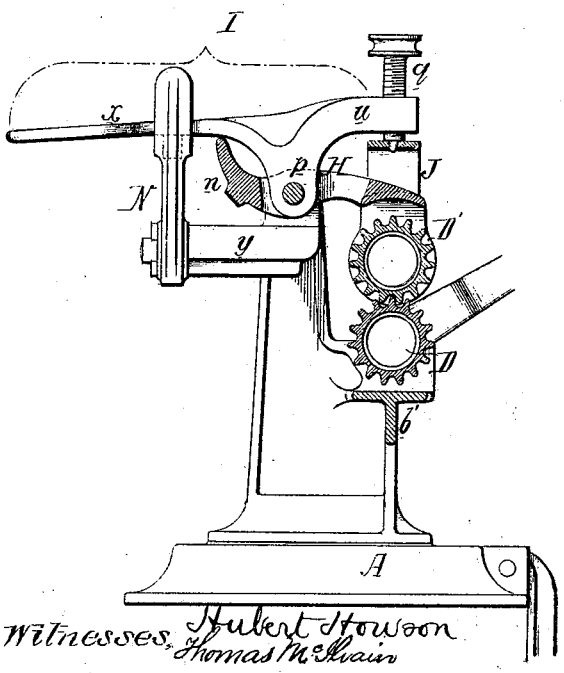


FIG. 2.



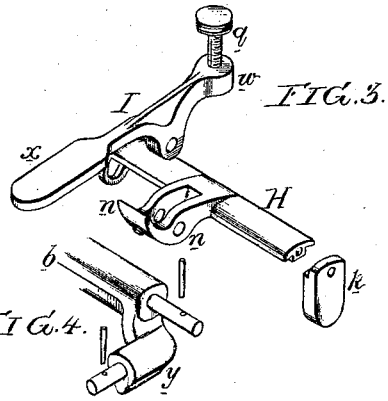


FIG. 3.

FIG. 4.

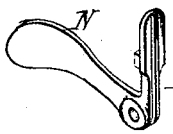


FIG. 5.

Witnesses,
Hubert Howson
Thomas McElvain

Hermann Albrecht
by his Attorneys,
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UNITED STATES PATENT OFFICE.

HERMANN ALBRECHT, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN FLUTING-MACHINES.

Specification forming part of Letters Patent No. **169,327**, dated November 2, 1875; application filed August 6, 1875.

To all whom it may concern:

Be it known that I, HERMANN ALBRECHT, of Philadelphia, Pennsylvania, have invented an Improved Fluting-Machine, of which the following is a specification:

The objects of my invention are, first, to so construct a fluting-machine that the depression of the upper fluting-roller shall require but a slight effort; and, second, to so construct the frame that there may be below the lower roller and its support a free, open space for the admission and passage of the fabric. These objects I attain in the manner which I will now proceed to describe, reference being had to the accompanying drawings, in which—

Figure 1 is a front view, partly in section, of my improved crimping or fluting machine; Fig. 2, a vertical section; and Figs. 3, 4, and 5, perspective views of detached portions of the machine.

To the base A of the machine is secured the frame B, composed of the vertical portion *a*, and the upper and lower arms *b* and *b'*, the latter overhanging the base, so as to permit the free introduction between the said arm and base of the fabric to be crimped. The journal *d* of the lower crimping-roller D has its inner bearing in the vertical portion *a* of the frame B, and is provided with a suitable handle, E, the outer bearing of the said roller being on a circular stud or projection, *e*, on the turned-up end *f* of the arm *b'*. A frame, H, carries the upper fluting-roller D', the inner journal *h* of which has its bearing in a projection, *i*, of the said frame, the outer bearing being on a circular projection, *j*, forming part of a plate, *k*, which is so attached by a set-screw, *m*, to the outer end of the frame H that it can be readily detached therefrom. From the frame H projects an arm, *n*, which is hung to a pin, *p*, on the upper stationary arm *b* of the frame B, and to the same pin is hung a lever, I, through the short arm *w* of which passes a screw, *q*, for bearing on a spring, J, and forcing the ends of the same onto the frame H. When the machine is in use the lever I is locked by a projection on the vertical arm of the bell-crank lever N, which is hung to a pin on the projection *y* of the arm *b* of the frame. When the upper fluting-roller has to be raised, however, the lever I is unlocked by operating the bell-crank lever, and the arm *x* of the said lever I is depressed, and as this arm bears on the outer end of the arm *n* of the frame H the latter, with the upper fluting-roller and spring J, must be elevated.

It should be understood that when the machine is adjusted for operation the fluted rollers are always in contact with each other; but when the fabric is passed between them the upper roller will yield, as the only obstacle to the rising of the frame is the spring J; hence the pressure on the fabric passed between the rollers will depend solely on the adjustment of this spring by the screw *q*. When the lever I is unlocked, and its arm *x* depressed, the latter arm, bearing on the upturned end of the arm *n* of the frame H, must elevate the latter, and with it the upper fluting-roller; in other words, while the frame H is under the control of the lever I, the said frame and its upper fluting-roller are capable of yielding independently of the said lever to an extent dependent upon the thickness of fabric introduced between the rollers, the fabric itself being subjected to a pressure depending upon the adjustment of the spring by the screw. Owing to these peculiarities the depression of the upper roller requires no such effort as in a machine in which the easy manipulation of the lever for depressing the upper roller is interfered with by the spring.

It will be understood that the fluting-rollers are, as usual, made hollow for the reception of heated irons.

I claim as my invention—

In a fluting-machine, the combination of the upper fluting-roller and its frame H, and the arm *n* of the latter, with the adjustable spring J, lever I, and a device for retaining and releasing the said lever, all substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HERMANN ALBRECHT.

Witnesses:

HARRY SMITH,

HUBERT HOWSON.