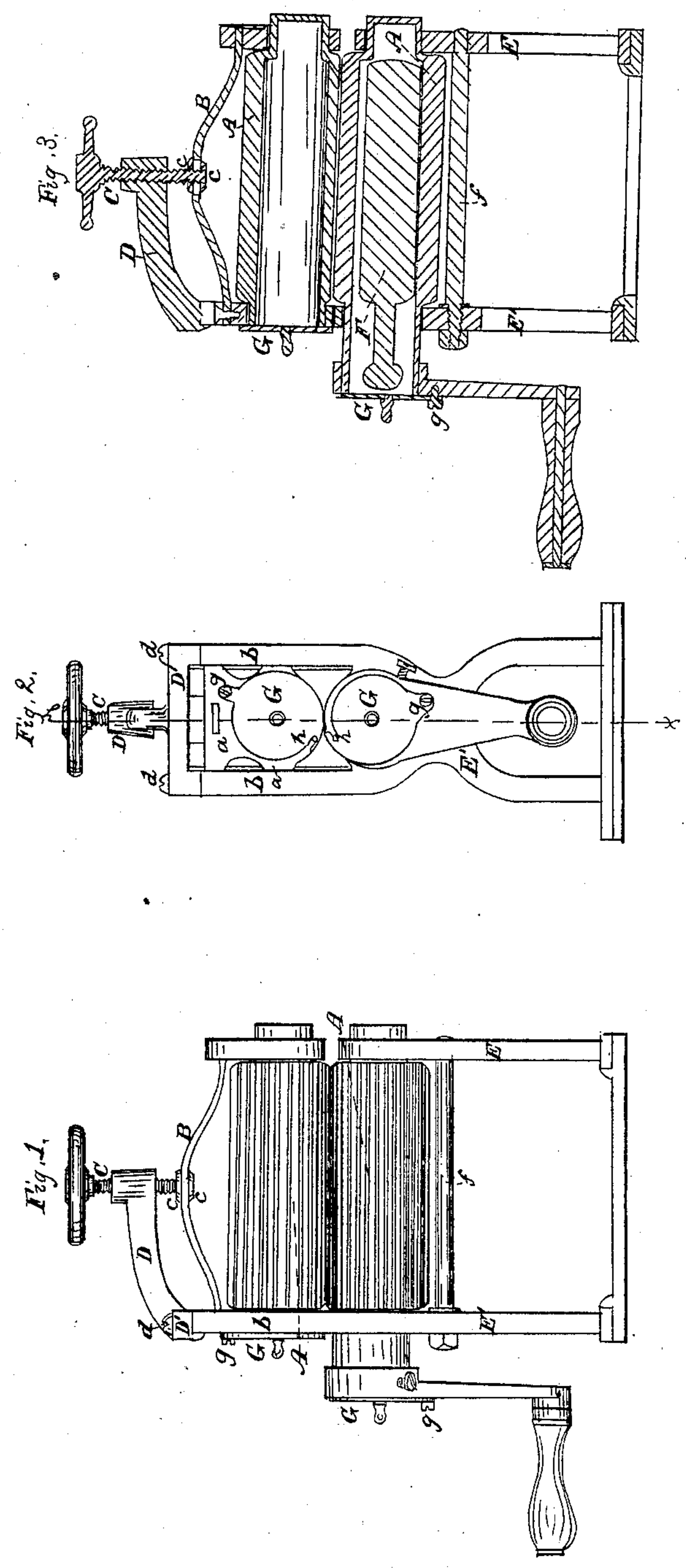


# S. G. Cabell, Crimping Machine.

No. 56365.

Patented July 17. 1866



Witnesses

Wm. W. Lamb.  
Gilbert B. Towles  
Inventor

Savage & Co. 1866

# UNITED STATES PATENT OFFICE.

SAMUEL G. CABELL, OF QUINCY, ILLINOIS.

## IMPROVEMENT IN CRIMPING-MACHINES.

Specification forming part of Letters Patent No. 56,365, dated July 17, 1866.

*To all whom it may concern:*

Be it known that I, SAMUEL G. CABELL, of the city of Quincy, Adams county, State of Illinois, have invented a new and useful Improvement in Crimping-Machines; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvements without further invention or experiment.

The nature of my invention and improvements consists in the application of hot irons in hollow, corrugated, or fluted cylinders for the crimping of ladies' linen, laces, &c., and the retention of the heat therein emitted from the irons for the heating of the cylinders by means of pivoted or hinged cap-plates, so arranged over the open ends of the cylinders as to render the same perfectly tight from the cold air, as well as preventing any burning or scorching of the hand resulting from the turning of the crank-handle in close proximity to the cylinders containing the irons by their being otherwise open.

My invention further consists in constructing a slotted curved spring attached to a curved grooved collar-slide for supporting the upper fluted cylinder and operating on curved tongued bars of the frame, whereby the upper cylinder may be adjusted to the lower one in the crimping of the material with facility and to a desirable advantage.

A feature of my invention also consists in so arranging the cylinders as to have them deviate from a horizontal line to a slight inclination from the heads of the same, so as to keep the irons therein to the lower ends of the cylinders, and thus prevent their working up against the caps during the revolution of them.

I am aware of a machine in use for crimping ladies' linen, laces, &c.; but the machinery for operating it is of such a cumbersome nature and so arranged as to render it objectionable to most ladies using it, in so far as the passing of the material from the fluted rollers to the rear coming in contact with the machinery at that point, requiring the material to be thus inconveniently manipulated to avoid the same, whereas the machinery in this is of such a simple nature as to enable the material to be

passed from the rollers in the process of crimping without hinderance or inconvenience from the arrangement of the machinery, and at the same time allow material of almost any width to be crimped to a better advantage from the open frame-work supporting the rollers on the left side facing the machine.

The following figures of the drawings fully illustrate my invention, viz: Figure 1, side elevation of my improved crimping-machine; Fig. 2, end view of the same; Fig. 3, longitudinal sectional elevation, as indicated by the line *xy* in Fig. 2.

Like letters in the figures of the drawings indicate like parts.

A A represent the fluted or corrugated hollow cylinders, the upper one of which is placed in collar-plates *a a*, (see clearly Figs. 2 and 3,) and so arranged as to revolve freely therein. The collar-plate to the right facing the machine is made with curved grooved edges, so as to fit over the curved tongued edges of the vertical bars *b b* of the frame, and so constructed as to be moved freely up and down thereon in the space allowed for the adjustment of the upper cylinder connecting therewith. The collar to the left is supported by the curved spring B, (see Figs. 1 and 3,) one end of which is secured permanently thereto. The other end is secured in a likewise manner to the collar opposite, but so done as to be readily detached therefrom by having the end tenoned and then slipped into a mortise made through the collar and near the top edge thereof to receive it, and secured from the top of the collar by a screw, *c*, passed down through the end. (See Fig. 3.)

The spring is supported by a vertical rod, C, having male screw-threads thereon, which passes through the ends of the projecting arm D, which arm is provided with female screw-threads, the rod fitting into and having its bearing therein. The spring has a slot constructed longitudinally, through which the bottom end of the rod passes, and is secured permanently thereto, and yet sufficiently to allow the rod to move freely around when operated on by two buttons, *c c*, one on the top and under sides of the spring.

The projecting arm is a part of the transverse bar D', being cast into one piece, which



bar is secured to the top of the vertical tongued bars herein mentioned by the screws *d d* passing down through it into them.

The lower fluted cylinder is supported by two collars and made to revolve freely around therein, the same as the above one, one of which collars is made in an upright plate, *E*, which plate has no connection with the upper collar-plate, a sufficient space being allowed between the two to allow the material (while in the process of crimping) of any reasonable width to be manipulated conveniently from the side, as is not the case with those in use, the machinery in them interfering materially with the management of the material during the operation. The other collar opposite is made between the vertical bars, the whole constituting the upright frame or plate *E'*. The two plates or frames are secured and braced in a substantial manner by a longitudinal screw-rod provided with a suitable screw-nut at one end. (See *f* in Figs. 1 and 3.) The upright plates rest on a square plate-frame having screw-holes, so as to allow it to be screwed to a table or other place, when desired.

In the lower cylinder is the iron *F*. The upper one is also intended to be provided with an iron; but the one shown is deemed all that is necessary for the purpose. (See Fig. 3.) The irons are heated to the ordinary degree of temperature and placed within the cylinders. In order to retain the heat emitted from the same, and thereby diffuse it well through the cylinders, and thus give a neat, firm, and stiff finish to the material, the open ends of the cylinders are closed by sliding cap-plates *G*, pivoted, respectively, to the grooved collar and collar of the crank-handle on the shoulder of the cylinder by screws *g g*.

The plates have notches or slots *h h* made into them from the sides, so as to catch onto pins, which hold them while in a closed posi-

tion. Both plates have knobs on them for taking hold of in the moving of them.

The cap-plates, as will be observed, afford protection to the hand operating the crank-handle from the heat from the irons.

The advantages of the curved spring and the application of the irons are obvious, the latter of which has been sufficiently described as to be fully understood without further remark. The former, however, needs further explanation.

When it is desired to adjust the upper cylinder to the lower one, by taking hold of the wheel on the screw-rod the cylinder is elevated or depressed proportionately to the thickness of the material between them to be crimped, the elasticity of the spring giving a gradual and easy pressure to the cylinder bearing on the material, thus preventing the flutes or corrugations from injuring the same.

Having thus fully described my invention, what I claim therein as new, and desire to secure by Letters Patent, is—

1. The combination and arrangement of an iron, *F*, in one or each of the hollow fluted cylinders *A*, substantially in the manner and for the purpose as herein set forth.
2. The sliding pivoted cap-plates *G*, as arranged, in combination with the fluted cylinders and irons, substantially in the manner and for the purpose as herein set forth.
3. The slotted curved spring *B*, screw-rod *C*, projecting arm *D*, and grooved collar, as arranged in their connection with the upper fluted cylinder and vertical tongued bars *b*, and operating substantially in the manner and for the purpose as herein set forth.

SAMUEL G. CABELL.

Witnesses:

N. H. VANZANDT,  
GILBERT B. TOWLES.