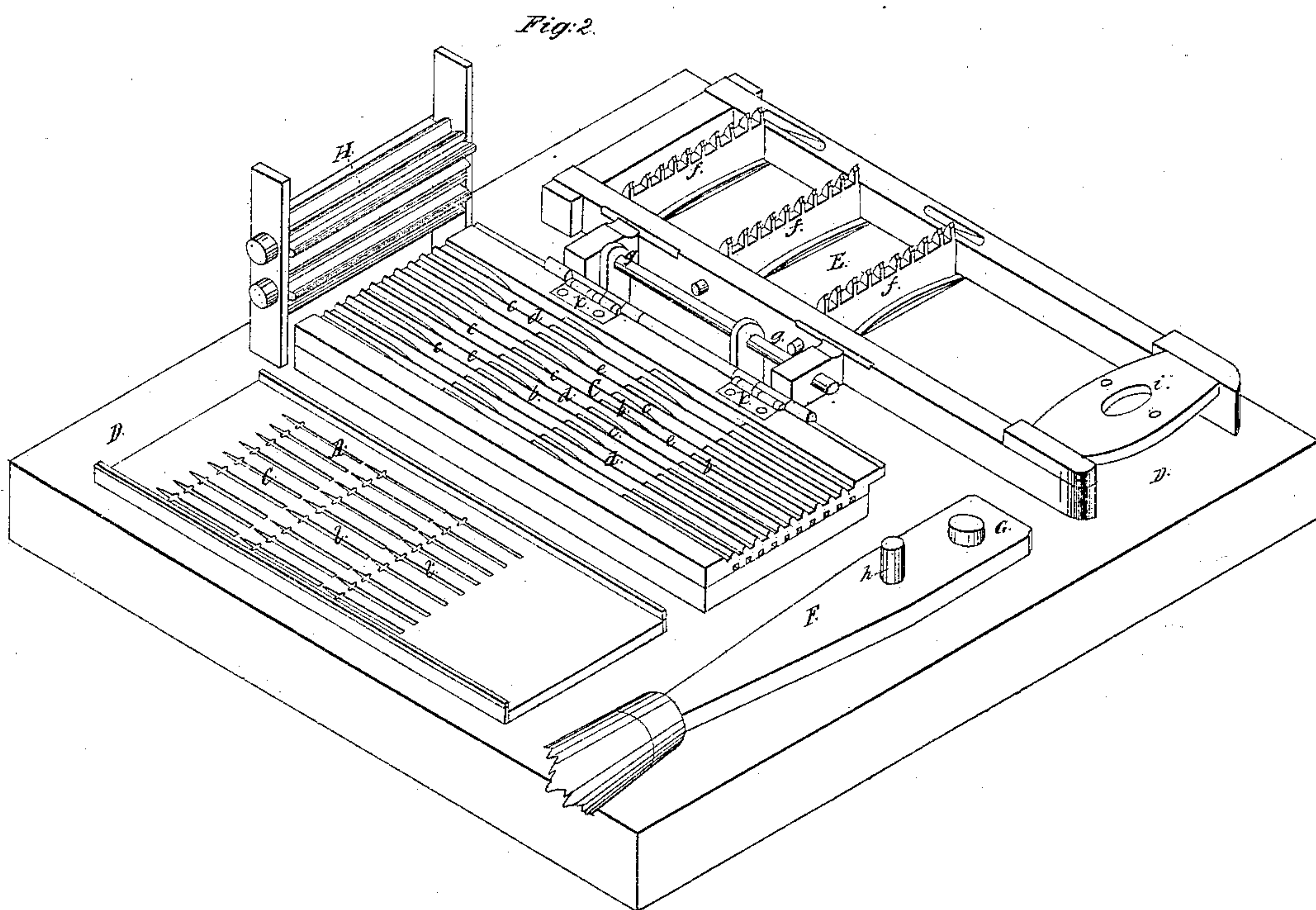
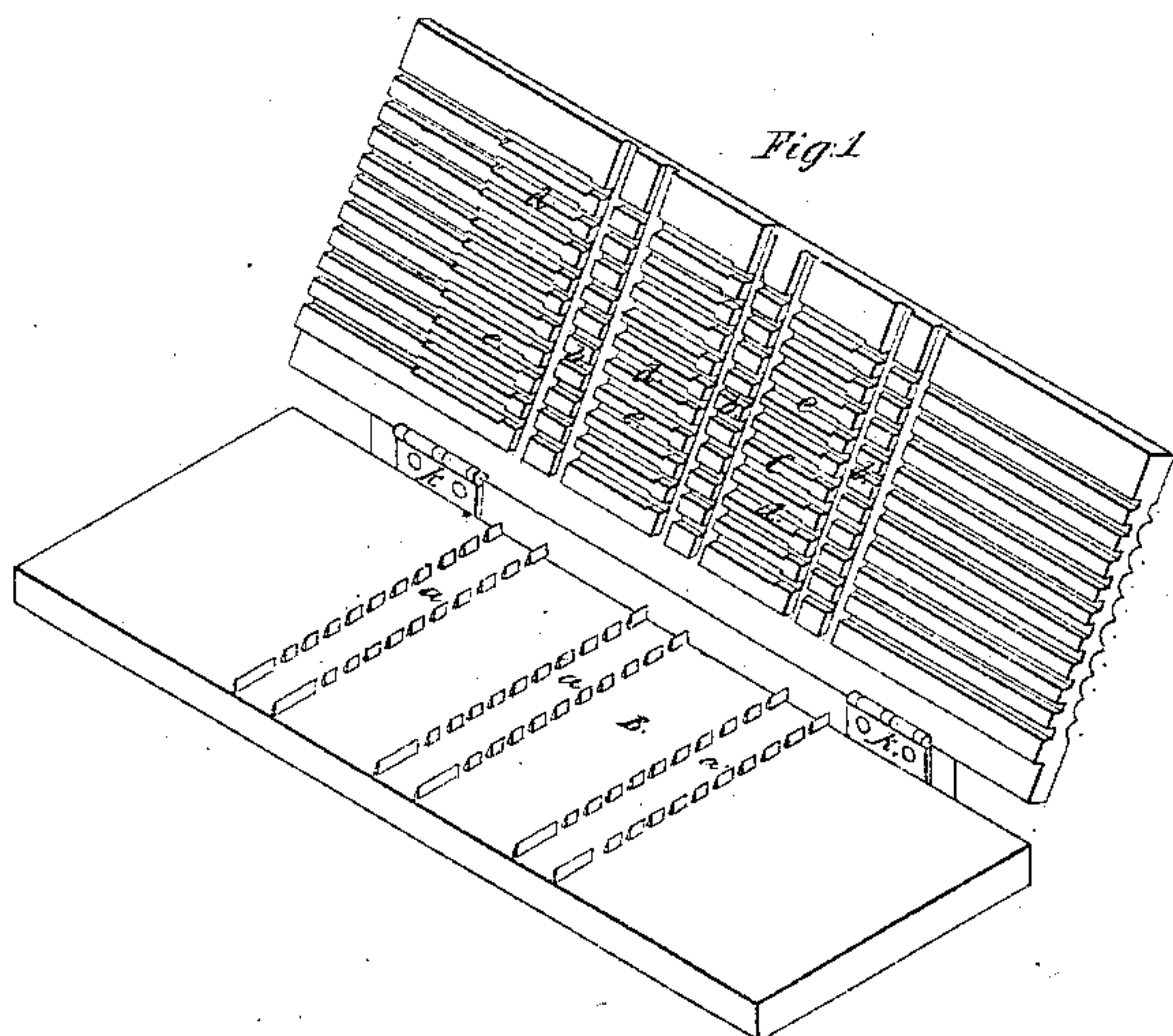


T. Fowler,

Papering Pins,

N^o 18,831.

Patented Dec. 8, 1857.



UNITED STATES PATENT OFFICE.

THADDEUS FOWLER, OF WATERBURY, CONNECTICUT, ASSIGNOR TO THE AMERICAN PIN COMPANY, OF SAME PLACE.

MACHINE FOR STICKING PINS ON PAPER.

Specification of Letters Patent No. 18,831, dated December 8, 1857.

To all whom it may concern:

Be it known that I, THADDEUS FOWLER, of the city of Waterbury, in the county of New Haven and State of Connecticut, have invented new and useful Improvements in Sticking Pins on Paper; and I do hereby declare that the following is a full, clear, and exact description of the construction, character, and operation of the same, reference being had to the accompanying drawings, which make a part of this specification, in which—

Figure 1, is a perspective view of the crimping and clamping part of the apparatus (for three rows) wherein the pins are inserted into the paper. Fig. 2, is a perspective view of the pin receiver, and of the sliding form which inserts the pins, together with the plate for separating, arranging, and spacing the pins, and the fluted rollers for corrugating the paper.

My improvement consists in the method of crimping and clamping the paper (sufficient for a whole paper of pins), the manner of passing the pins through the slotted form, and the mode of inserting them into crimped paper (while it is clamped in the crimper) by the sliding form; thus sticking a whole paper (14 rows, or any other number) at one operation of the machine.

I make the plate A, Fig. 2, for separating, arranging, and spacing the pins in every particular, precisely as described in my patent dated Feb. 12, 1856, (marked Fig. 3, in those drawings), except that I extend it sufficiently to arrange, &c., a whole paper of pins at one operation. I make the crimping bars, or jaws, with notches, or spaces, for the pins to pass through the crimps of the paper while it is held in the crimpers, similar to what are called "Howe's crimping jaws," as shown at *a*, and *b*, Fig. 1. I make the upper portion, C, of this crimper with transverse bars, as shown at *b*, and *c*, Figs. 1 and 2, on which bars I make inclined planes, as shown at *c*, &c., Fig. 2, and longitudinal ribs, *d*, &c., Figs. 1 and 2, so as to leave spaces or slots for the pins to pass through to the crimped paper, as shown at *e*, &c., Figs. 1 and 2, but of less length than the pins, so that the head of the pins will rest on the incline planes, *c*, &c., while the points drop through the slots or spaces, *e*, &c., onto the crimped paper on the lower part B, of the crimper, where the points will rest

against the crimps of the paper. I attach this form, B, to the bed plate, D, by suitable hinges (not seen), so as to allow it to be turned over onto the plate, A, Fig. 2, and I hang the slotted post, C, with suitable hinges, as *h* and *h*, so that it may be readily opened to receive the paper, &c.

I make the sliding frame, E, Fig. 2, with transverse bars, on which I have teeth, or projections, as seen at *f*, &c., Fig. 2. This frame, E, I also attach to the bed plate, D, by a suitable sliding hinge, as shown at *g*, *g*, Fig. 2, and to slide it longitudinally, I use a lever, as F, working on a fulcrum pin, as G, and the pin, or stud, *h*, passing through the hole or opening *i* in the end bar of the frame, E, all as shown in Fig. 2 (or any other suitable means may be used). I use a pair of fluted rollers, as shown at H, to corrugate the paper before it goes to the crimpers, so that the crimpers will receive a sufficient length of paper to compensate for the crimps, to prevent breaking the paper by strain.

Having made the several parts of the apparatus, and secured them to the bed plate, as before described, I pass the slip of paper through the fluted rollers, H, to corrugate it, and then onto the lower part, B, of the crimper (while it is open, as in Fig. 1) and turn the other part, C, over it, as shown in Fig. 2, and press it down (by any convenient clamp, or otherwise), so as to completely crimp and clamp the paper ready to receive the pins. I plan the arranging and spacing plate, A, Fig. 2, in a longitudinally inclined position, and give it a lateral oscillating motion (by any convenient means) which will cause the perfect pins to pass down, head foremost, and lodge in the spaces, *l*, &c., while the imperfect pins will pass off (all precisely as described in my patent dated Feb. 12, 1856). When all the spaces in this plate, A, are filled, I place it on the bed plate in the position shown in Fig. 2, and turn over the crimping form (B, C,) onto it, and then turn them, both together, back to the position of the crimping form in Fig. 2, and remove the plate, A, when the pins will rest with their heads on the incline planes, *c*, &c., and their points (having passed through the spaces, *e*, &c.) will rest on the paper in the crimper, B, C. I then turn over the sliding frame, E, onto the slotted form, C, when the teeth, or pro-

jections, *f*, &c., will fall onto the inclined planes (*e*, &c.) back of the heads of the pins; and the hole, or opening, *i*, will pass onto the stud, *h*; then by moving the outer end of the lever, *F*, in the direction indicated by the dart, the teeth, or projections, *f*, &c., will pass down the incline planes against the heads of the pins and force their points into the crimps of the paper, and as the projections, *f*, &c., pass off of the inclined planes they will descend (with the heads of the pins) through the slots, *e*, &c., and force the pins through the crimps of the paper to the extent which it is desired to insert them. I then turn back the frame, *E*, to the position shown in Fig. 2, open the crimping form to the position shown in Fig. 1, take out the paper of pins, and then proceed with another,—and so on.

The advantages of my improvement over my former patent consist in, that by the use of this method of crimping, and holding the paper I am able to dispense with the use of

the embossing apparatus described in my former patent, and shown in that drawing (marked Fig. 4), and by means of the slots, *e*, &c., and the frame, *E*, I am able to dispense with the paper holder, *D*, and frame, *A*, in Figs. 1 and 2 of that drawing, and, also, in having a machine which works with more ease and perfection, as well as with greater rapidity.

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

1. The combination of the plate, or form, *A*, with the slotted form, *C*, when constructed and made to deposit the pins, substantially as herein described.

2. I also claim the combination of the sliding frame, *E*, with the slotted form, *C*, when constructed and used substantially as herein described.

THADDEUS FOWLER.

Witnesses:

S. THOMPSON,
R. FITZGERALD.