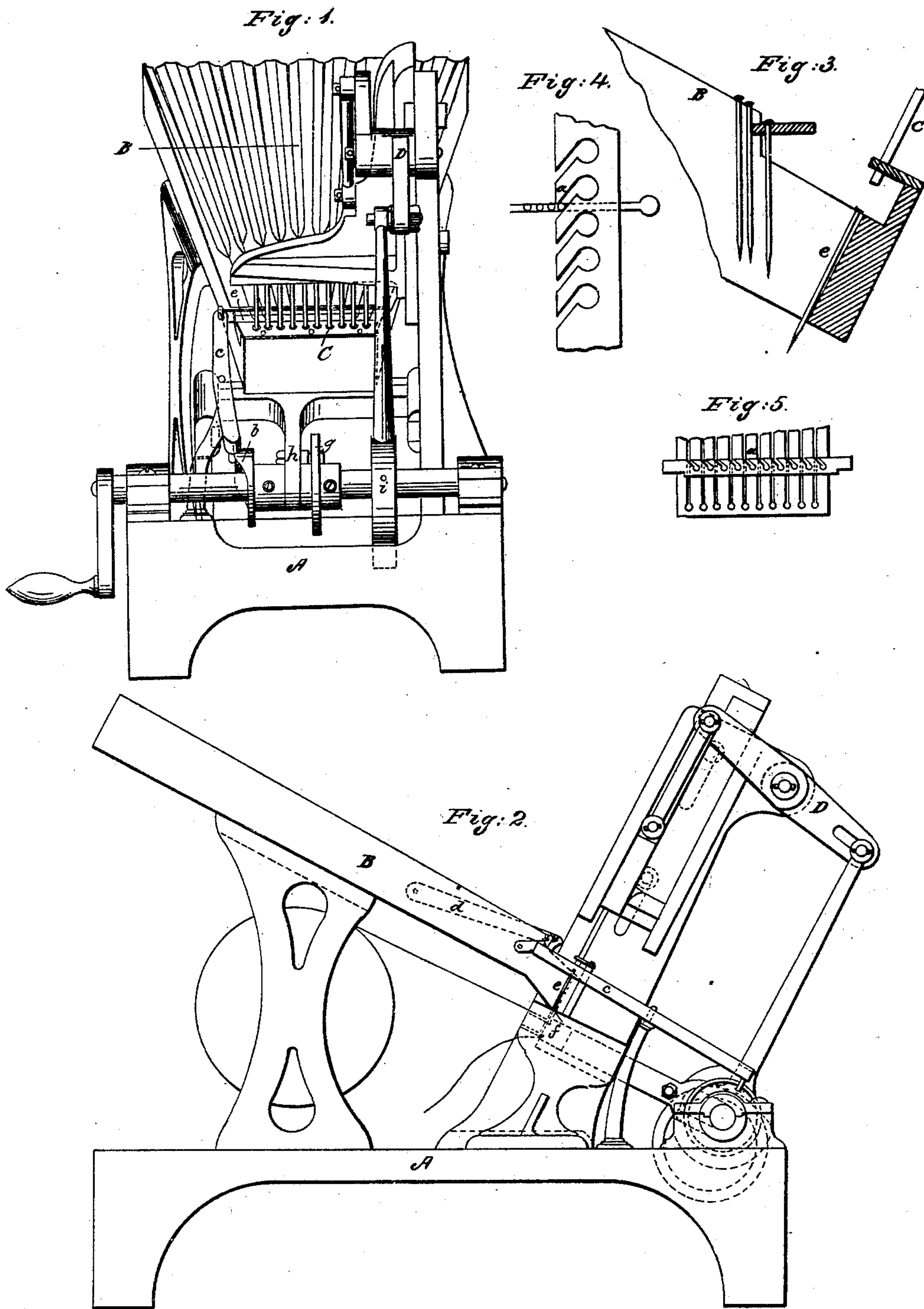


C. W. VAN VLEIT.

Papering Pins.

No. 21,541.

Patented Sept. 14, 1858.



UNITED STATES PATENT OFFICE.

CORNELIUS W. VAN VLIET, OF WINSTEAD, CONNECTICUT, ASSIGNOR TO NEW ENGLAND
PIN CO., OF SAME PLACE.

PIN-STICKING MACHINE.

Specification of Letters Patent No. 21,541, dated September 14, 1858.

To all whom it may concern:

Be it known that I, CORNELIUS W. VAN VLIET, of Winsted, in the county of Litchfield and State of Connecticut, have invented a new and useful Improvement in Pin-Sticking Machines; 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 plan of the whole machine, as viewed from the front end. Fig. 2, is a plan of the same viewed from the left hand side. Fig. 3, is a plan of a section of the same, showing the different positions of the pins. Fig. 4, is a plan of the separator. Fig. 5, is a plan showing the position of the pins in connection with the separator.

My improvement consists in the manner hereinafter described of separating and guiding the pins so that they will fall with their points directly on the crimped and clamped paper, in vertical positions, ready to be inserted by the descending motion of the series of punches, or drivers.

I make the frame of cast iron, or any other suitable material, as indicated in Figs. 1, and 2. I make a series of conducting channels, in the usual way for arranging the pins with their heads in one direction, except the lower ends, which are shaped, substantially, as indicated at B, and c, Figs. 1, 2, and 3. To separate one of the pins from each column as they are in the channels, I use a sliding plate with inclined slots, or spaces, as shown in Figs. 4 and 5, so formed that a wedge shaped point will be forced between the barrels, or shafts, of the pins and hook, or force, out one from each channel, as shown at a, Fig. 4, and also indicated in Fig. 5. This sliding plate is thrown back, to take the pin, by the operation of the cam, b, on the lever, c, Figs. 1, and 2, and is thrown forward, to cut off, or separate, one pin from each column, by a spring, indicated by dots at d, Fig. 2, so that, in each operation, the slide, Fig. 4, will cut off a full row of pins, so that when their heads arrive at the position shown at e, Fig. 3, each will be ready to be forced into the crimped paper, as dotted at f, Fig. 2.

To crimp the paper I use the well known jaws, as indicated at f, Fig. 2, I work the

movable part of these crimping jaws, by the operation of the cam, g, on the bar, h. I force the pins into the crimped paper by a series of punches, or drivers, shown at C, Fig. 1, (and one of them, in section, in Figs. 2, and 3.) I work the punches, C, by the operation of the cam, i, through the medium of the lever, or pitman, D, Figs. 1, and 2.

Having constructed and arranged the several parts of the machine, as before described, I throw the pins into a suitable hopper, from which they will fall onto the inclined channel ways, B,—be arranged with their heads all in the same direction, and pass down nearly to the lower ends, where they will be stopped by the sliding, or separating, plates,—when the wedge shaped points, as at a, Figs. 4, and 5, will separate one pin from the lower end of each column, in the inclined channels, and conduct, or guide, them down until the heads will drop through and by the peculiar construction of the lower ends of the ways suddenly pass to the position shown at e, Figs. 2, and 3 that is, with their points resting on the crimped paper, and heads directly under the punches, or drivers. These drivers are then brought down, by the action of the cam, i, and the rows of pins forced through the crimped paper,—and so on.

The advantages of my invention consist in the simplicity of its structure, which renders it not liable to get out of order, by use; and in the ease, and rapidity, with which the machine may be worked, as I am able to stick pins with much greater rapidity than has ever been done by any other machine. And I distinctly disclaim the punches, or drivers, as such, as they have been well known for half a century. I also distinctly disclaim the crimping bars, as such,—they having been patented in England, to Miles Berry, in the year 1859, and, in the United States to J. J. Howe of Derby, in Connecticut, in the year 1843. I also distinctly disclaim the sliding separator, as such, as that was patented to J. B. Terry, assignee of Thos. W. Harvey, Jan. 3, 1854. I also distinctly disclaim the channel ways, as such, they having long been known, and used, for arranging screws, pins, &c.

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

1. The combination of the series of chan-

nel ways, with the sliding separator, when constructed, and made to operate, substantially, as described.

2. I claim the combination of the punches,
5 with the sliding separator, when constructed, and arranged, substantially, as herein set forth.

3. I claim the combination of the crimp-

ing bars with the punches, sliding separator, and channel ways, when constructed, 10 arranged, and made to produce the result, substantially, as herein described.

CORNELIUS W. VAN VLIET.

Witnesses:

S. W. COE,

J. G. WETMORE.