G. H. SPRINGER.

Machines for Perforating Paper.

No. 196,395. Patented Oct. 23, 1877.

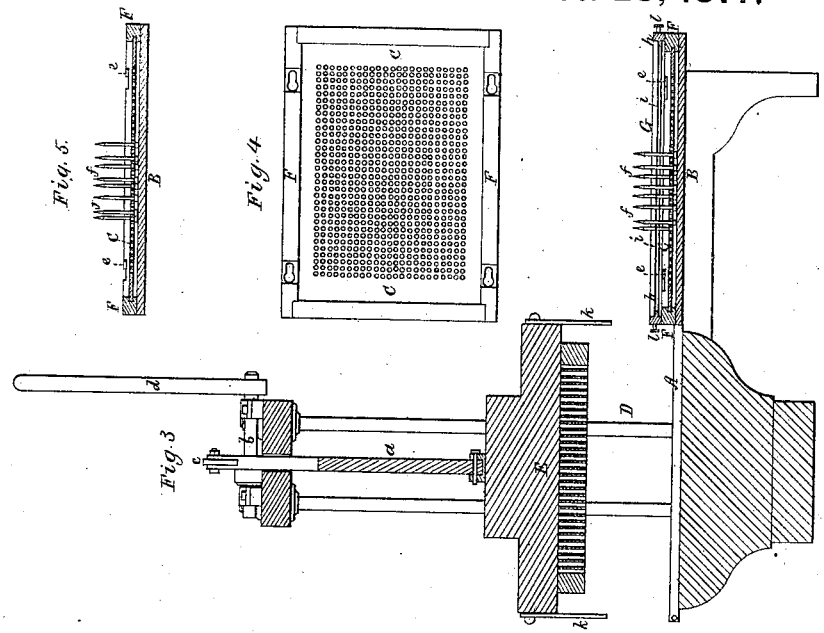

Fig. 3

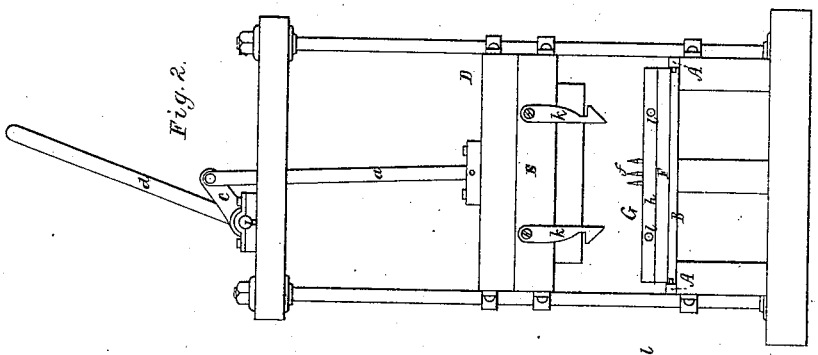

Fig. 2.

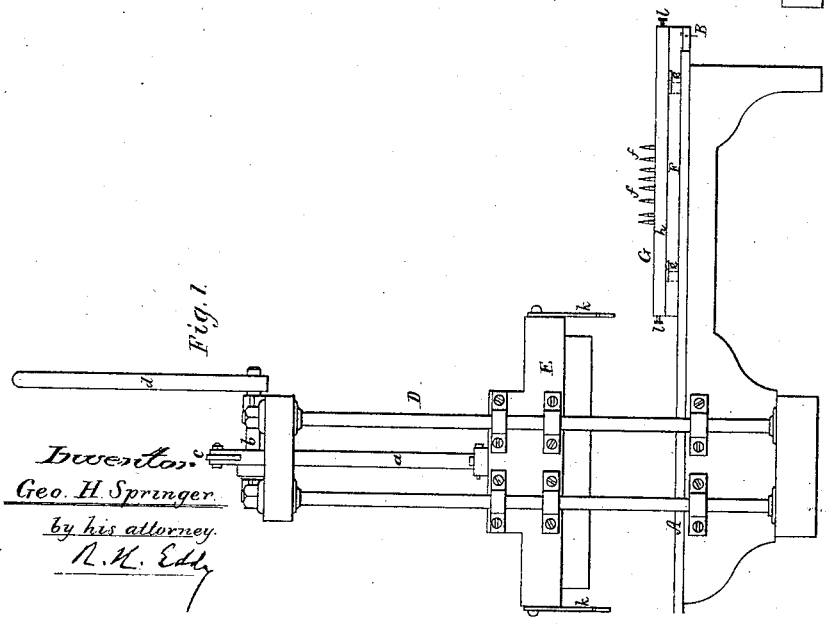

Fig. 1.

Witnesses

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Inventor:

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by his attorney.

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UNITED STATES PATENT OFFICE.

GEORGE H. SPRINGER, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO L. PRANG & CO., OF SAME PLACE.

IMPROVEMENT IN MACHINES FOR PERFORATING PAPER.

Specification forming part of Letters Patent No. **196,395,** dated October 23, 1877; application filed August 14, 1877.

To all whom it may concern:

Be it known that I, GEORGE H. SPRINGER, of Boston, of the county of Suffolk and State of Massachusetts, have invented a new and useful Machine for Making Patterns for Stenciling Designs on Walls or other Objects; and I do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a side elevation, Fig. 2 an end view, and Fig. 3 a longitudinal section, of it. Fig. 4 is a top view of the foraminous pattern-plate and its carrying-frame. Fig. 5 is a longitudinal section of such plate and frame, and its backing-plate and pins.

In such drawings, A A denote parallel ways or rails for supporting and guiding the backing-plate B and the pattern-plate C when connected. These rails are arranged within a press-frame, D, provided with a platen, E, and mechanism for moving it up and down, such mechanism, as shown, consisting of a connecting-rod, *a*, and a shaft, *b*, furnished with arms *c d*, all arranged as represented.

The backing-plate B has upon it, and connected to it by locking-pins *e e*, the frame F, supporting the plate C, which is perforated with numerous small holes, arranged at equal distances apart, both lengthwise and widthwise of it. Up through these holes a series of headed and pointed pins, *f f*, are to be extended, as shown, their heads resting upon the plate B, which is to keep the pins in place in the foraminous plate. By marking or placing upon the back of the foraminous plate any design, and filling all or a sufficient number of the holes directly under the boundaries or lines of it with the pins, and securing them in place by the backing, connected by suitable fastenings to the pattern-plate, the press will be provided with means of puncturing a sheet of paper with holes for stenciling the design upon a wall or article.

In connection with the press, the foraminous plate and its backing, and series of pins, I make use of a device or mechanism for separating the perforated sheet from the pins. This is shown at G, and consists of a rectangular frame, *h*, and a covering, *i*, thereto, of cloth, stretched across such frame from side to side, and from end to end of it. The frame is to be laid upon that of the foraminous plate and its pins, with the latter extending up through the cloth. The platen is to have holes or punctures in it, corresponding generally in number, positions, and size to those of the pattern-plate, in order that, while the platen is in the act of being depressed upon the sheet to be punctured, the pins shall enter the platen.

Pendulous hooks or latches *k k*, as shown, suspended from the ends of the platen, are, during its descent, to catch upon studs *l l*, projecting from the card-separator G, in order that while the platen is in the act of being moved upward, such separator may be raised with it, and pull the card off the pins. The separator, on being withdrawn from the pins by the hand or hands of an attendant, will perform the office of separating the card from the said pins.

I claim as my invention as follows, viz:

1. The combination of the separator G with the foraminous plate C, the series of pins *f*, and the backing-plate B, all being substantially as and for use as set forth.

2. The combination of the press, having perforations in its platen, as described, with the foraminous plate C, the series of pins *f*, the backing-plate B, and the separator G, all being essentially as and to operate as and for the purposes set forth.

3. In combination with the press, having perforations in its platen, and with the foraminous plate, the series of pins, the backing-plate, and the separator, mechanism for seizing the separator during a descent of the platen, and raising it and the perforated sheet off the pins during the ascent of the platen, such mechanism, as shown, consisting of the pendulous hooks or latches *k k* and the studs *l l*, applied to the platen and the separator, as set forth.

GEO. H. SPRINGER.

Witnesses:
R. H. EDDY,
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