S. W. YOUNG.

Machine for Making Eyelets.

No. 65,035. Patented May 21, 1867.

Fig: 1.

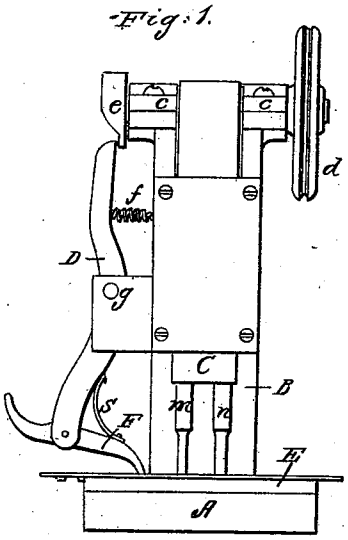


Fig: 2.

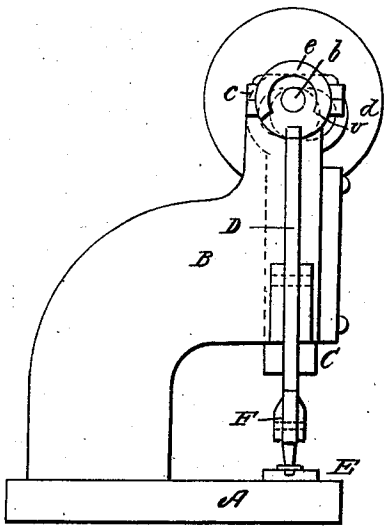


Fig: 3.

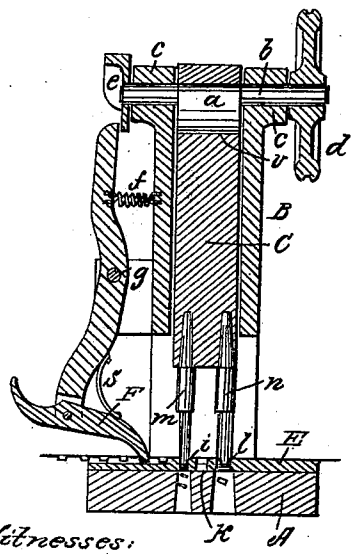


Fig: 5.



Fig: 4.

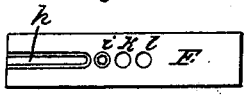


Fig: 6.

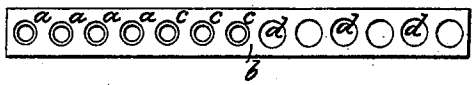
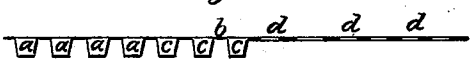


Fig: 7.



Witnesses:

Geo. H. Andrews.

Samuel A. Piper.

Inventor:

S. W. Young.

by his Attorney

R. H. Eddy.

N. PETERS, Photo-Lithographer, Washington, D. C.

United States Patent Office.

SOLOMON W. YOUNG, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR TO HIMSELF, J. W. HOARD, AND R. A. DENISON, OF SAME PLACE.

Letters Patent No. 65,035, *dated May* 21, 1867.

IMPROVEMENT IN MACHINES FOR MAKING EYELETS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL PERSONS TO WHOM THESE PRESENTS SHALL COME:

Be it known that I, SOLOMON W. YOUNG, of the city and county of Providence, and State of Rhode Island, have invented a new and useful Machine for Making Eyelets from what is termed "eyelet stock," such as constitutes the subject of Letters Patent of the United States, No. 54,646, granted May 8, 1866, to John W. Hoard; and I do hereby declare my invention to be described in the following specification, and represented in the accompanying drawings. Of such drawings—

Figure 1 is a front elevation, and

Figure 2 a side elevation of such machine.

Figure 3 is a section taken through its punches, die-plate, and feeder.

Figure 4 is a top view of the die-plate.

Figure 5 is an end view of such plate showing its guide-groove.

Figure 6 is a top view, and

Figure 7 a longitudinal section of a strip of "eyelet stock" partially punched.

In the said figs. 6 and 7, *a a a* denote the eyelet blanks in relief on the strip *b* as they are formed preparatory to the introduction of the eyelet stock into the machine. *c c c* are some of such blanks with their bottoms punched out by the action of the first punch. *d d d* are circular apertures which, by the second punch, are made in the strip and for the purpose of separating the eyelets from the strip. In the other figures of the drawings A denotes the bed-plate, and B a standard or "gooseneck" raised on such plate, and serving to support and guide a plunger, C, and its operating mechanism. Such plunger has an eye, *v*, in its upper end to receive an eccentric, *a*, fixed on a rotary shaft, *b*, duly supported in boxes *c c*. The said shaft *b* has a driving-pulley, *d*, fixed to it at one end, and it also has a cam, *e*, fastened on its other end, such cam *e* serving with a spring, *f*, arranged as represented, to impart an intermittent reciprocating movement to a lever, D. The said lever D has its fulcrum *g* supported by the standard B, or in projections therefrom, the lever being placed over a die-plate, E, which is fixed on the bed-plate A. This die-plate has a guide-groove, *h*, formed in it from one of its extremities and ending close up to the first of two dies *i l* made in such plate, and having a cavity, *k*, between them. Two punches *m n* extending from the foot of the plunger C operate with the dies *i l*. The punch *m* and its die *i* are for separating the bottom from the concavo-convex eyelet blank formed in the eyelet stock. The second punch *n* and its die *l* operate to remove the eyelet from the stock. The cavity *k* is to receive each eyelet blank after having its bottom punched out, and being advanced far enough for the next preceding eyelet blank to enter the first die *i*. The guide-groove in transverse section corresponds to that of that part of an eyelet projection or blank which extends from the strip *b*, and it serves to guide the strip along to the dies. A feeder, F, is jointed to the lower end of the lever D, such feeder being a lever formed as exhibited in the drawings. A spring, *s*, fixed to the lever bears down upon the feeding-arm of the feeder. The feeder, by entering each of the depressions of the eyelet stock and being moved back and forth by the lever D at the proper times, will feed the stock along underneath the punches and upon the die-plate. The punches in the mean time being similarly moved up and down by the plunger, will punch out the bottom of one eyelet and separate another from the stock at every descent made by such punches. I would remark that when the punches rise upward they will lift the stock clear of the dies so as to enable it to be separated from the punches, and advanced by the feeder.

I claim as my invention in such machine the following, viz:

The combination as well as the arrangement of the feeding mechanism, the dies *i l*, the punches *m n*, and mechanism for operating such punches, substantially as described.

I also claim the die-plate as made with the guide-groove *h*, and the gauge cavity *k* arranged with the dies *i l*, substantially as described.

SOLOMON W. YOUNG.

Witnesses:

CHARLES SELDEN,

ALBERT M. HEWITT.