

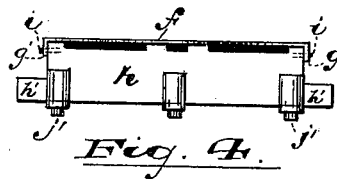
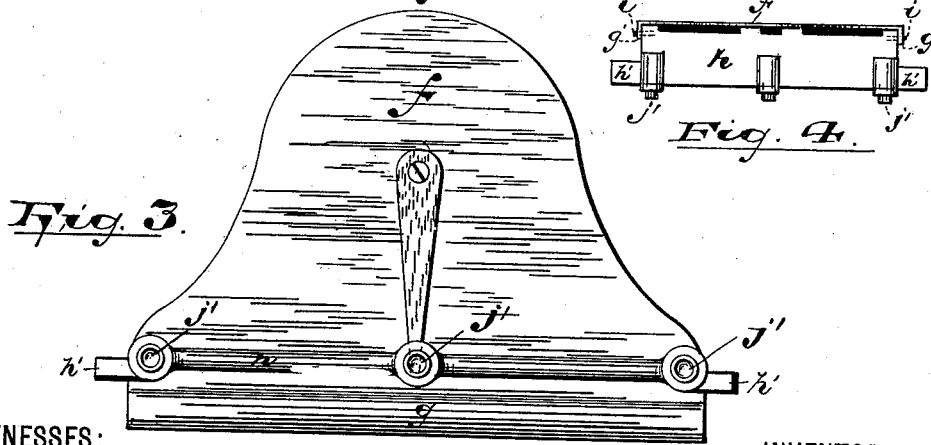
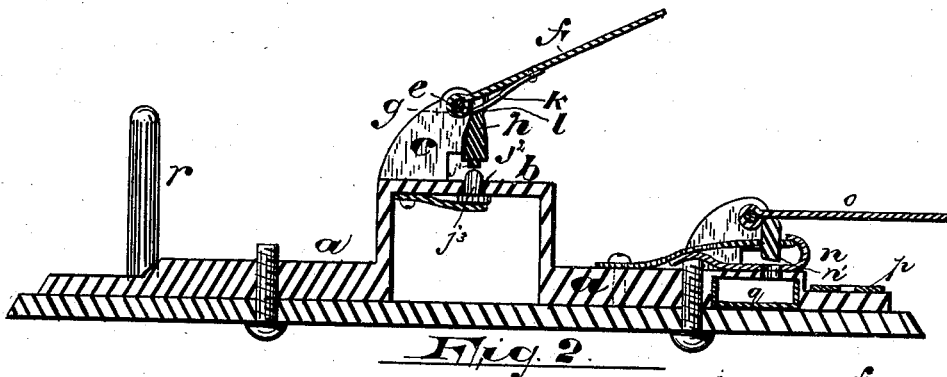
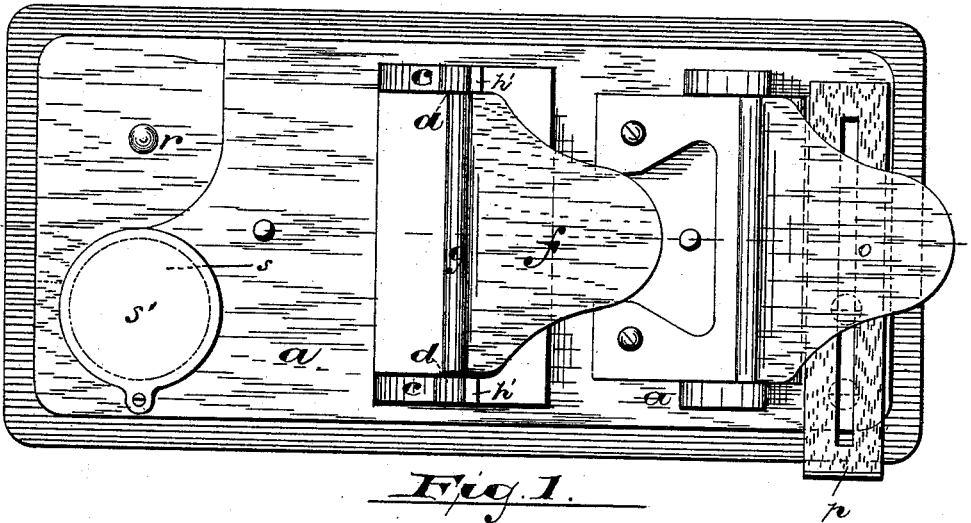
(No Model.)

G. B. WEBB.

PERFORATING AND EYELETING MACHINE.

No. 384,597.

Patented June 12, 1888.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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PERFORATING AND EYELETING MACHINE.

SPECIFICATION forming part of Letters Patent No. 384,597, dated June 12, 1888.

Application filed September 12, 1887. Serial No. 249,459. (No model.)

To all whom it may concern:

Be it known that I, GEORGE B. WEBB, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Perforating and Eyeletting Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to certain improvements in that class of devices or machines illustrated in Letters Patent No. 344,996, granted July 6, 1886, the object being to facilitate the process of perforating and eyeletting sheets of writing-paper, whereby they may be held together for convenience or reference, and to provide a machine which will be more convenient, durable, and efficient.

The invention consists in the arrangements and combinations of parts, substantially as will be hereinafter set forth, and finally embodied in the clauses of the claim.

Referring to the accompanying drawings, in which like letters of reference indicate corresponding parts in each of the several figures, Figure 1 represents a plan view of a perforating and eyeletting machine. Fig. 2 is a sectional view of the same, and Figs. 3 and 4 represent detail views respectively.

In said drawings, *a* indicates a bed-plate for the perforating and eyeletting mechanisms, said bed being preferably formed of iron and in one piece. On said bed is formed an elevated table, *b*, from which project at the opposite ends thereof arms or bearings *c*, which are perforated, as at *d*, to receive the ends of a pivotal shaft, *e*.

f represents a lever which is fulcrumed on said shaft *e*, the said lever being preferably a plate which is turned around said shaft to form a fulcrumal eye, *g*. On said plate-like lever, but a little eccentric to the eye *g*, are ears *g'*, Fig. 4, formed by turning or bending down the ends of the plate *f*, between which ears *g'* gate, *h*, is pivoted, said gate working with the lever *f* and having an independent movement

thereon. Said gate has lugs, as *i*, to serve as pivots, which connect said gate with the lever. On said gate *h* are formed bosses at points preferably of uniform distances from one another, from which project downwardly-extending male dies or formers *j'*, secured thereon or therein in any suitable manner. The male dies *j'* are brought in contact with the lower dies, *j''*, in the table *b* by turning the lever over, so that the gate depends from the under side thereof. The male dies have an annular concavity formed around the ends thereof, so that they are pressed into the eyelets arranged on upwardly-extending pins *j'''*, extending through the lower dies. The said eyelets will be outwardly pressed to form a second flange to co-operate with the flanges already formed on the eyelets in holding or binding the several sheets of paper together in the ordinary manner.

k indicates a spring secured on said lever *f*, which bears against an inclined surface, *l*, in the gate and serves to hold the said gate carrying the male dies against certain guarding-bearings, hereinafter referred to. At each end of the gate *h* are lateral projections *h'*, which extend over and slide on guiding-bearings *c*, the latter being rounded at the top, and at the sides are vertical, and are adapted to guide the male dies, so that they engage the tops of the upwardly-extending pins. Said pins are held so that they project above the table by suitable springs, having their seats under the table. As the dies engage said pins, the latter are repressed below the surface of the lower die or table and the eyelets are freed therefrom, and at the same time secured in the paper.

n indicates a plate in the perforating-machine, carrying the vertically-extending punches or perforators *n'*, under which the paper is placed preparatory to puncturing it, the lever *o* pressing upon said punches or perforators to puncture the paper in the usual way. The bed-plate of the perforating or puncturing portion of the device is integral with the eyeletting portion.

p represents a gage to enable the paper to be placed in the machine in the proper position under the perforators preparatory to puncturing the same.

g represents a drawer or receptacle adapted to slide in and out of the bed-plate *a* under the perforators to receive the waste-paper as it drops from the machine in puncturing the sheets, thereby preventing the pieces from being scattered over the floor and littering the same.

Save the drawer or receptacle just referred to and the fact that the bed-plates of the two devices are made integral, there is no special feature of novelty in the perforating device.

r represents a spool-holder for holding a spool of tape for binding the punctured sheets together subsequent to eyeleting the same.

s indicates a cavity or receptacle formed in the bed-plate *a* for eyelets, said receptacle having a suitable cover, *s'*, pivoted at one side thereof on the bed-plate and adapted to slide horizontally over the cavity.

Heretofore devices for eyeleting and puncturing have been formed separate and secured to a wooden bed; but I have formed the bearings for the operating parts of both portions of the machines of one piece with the bed-plate.

Said bed-plate may be mounted upon an oblong wooden slab, thereby giving greater strength and durability to the same.

The advantage in mounting the eyeleting-machine instead of having it on a level with the perforating-machine is that I am thereby enabled to insert the paper which is to be eyeleted more conveniently in the machine without creasing it, the paper being laid over the top of the perforating-machine, which brings it in proper line to be slipped between the male dies and lower dies of the eyeleting-machine.

In older devices of similar construction for eyeleting the gate *h* was rigidly attached to the arms *c* and swung over on one side of the machine, resting upon a support attached at one side thereof. When inserting the eyelets, the same were placed upon the pins *j*³, projecting from the lower dies, *j*². The paper was then adjusted and the gate swung back in position. The lever, then being depressed, descended, bringing with it the gate carrying the male dies, which, descending upon the lower dies, inserted the eyelets.

In removing the paper from the machine the lever was raised and the gate swung over to rest upon the support before mentioned, and the paper removed from the machine.

By my improvement the gate is attached to the lever, and when the paper is adjusted in the machine the lever is then depressed and the male dies, descending upon the lower dies, eyelet the paper, as before described. The lever is then raised, lifting at the same time the gate to a vertical position, thereby saving time and inconvenience in moving it separately.

Having thus described the invention, what I claim as new is—

1. A perforating-machine substantially such as described, combining therein arms or supports for holding the ends of a lever, a spring-plate for carrying the perforators, perforators arranged on said spring-plate and adapted to be operated by said lever, a bed-plate supporting said lever, spring-plate, and perforators, and provided with openings arranged to receive said perforators, and a drawer arranged under said perforators and adapted to slide in and out of the bed-plate, substantially as and for the purposes set forth.

2. An eyeleting-machine substantially such as herein described, having a bed with lower dies, a plate-like lever, and a gate having dies for forming a second flange on an eyelet, said gate being pivotally connected with and operated by said lever, as and for the purposes set forth.

3. The combination, in an eyeleting-machine, with a bed having repressible pins, of a lever having a pivoted gate with male dies or formers corresponding in position with said pins and adapted to enter the eyelet and turn the same to form the second flange, all arranged and operating substantially as described.

4. In an eyeleting-machine, the combination, with a bed having repressible pins adapted to receive eyelets, of a plate-like lever provided with a gate, guides *c*, and a spring for holding said gate against said guides, said gate being provided with dies or formers for turning a flange on said eyelets, substantially as set forth.

5. The combination, in an eyeleting-machine, with a bed having repressible pins and lower dies, of a plate-like lever, a gate pivotally connected with and operated by said lever, and dies on said gate, all arranged and operating substantially as described.

6. In an eyeleting-machine, the combination, with a bed having repressible pins and lower dies, of a plate-like lever, a gate pivotally connected with and operated by said lever, dies or formers on said gate, guides formed on the supporting-arms, and against which the ends of the gate slide, and a spring secured to said lever for holding said gate against said guides, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 19th day of August, 1887.

GEORGE B. WEBB.

Witnesses:

CHARLES H. PELL,
OSCAR A. MICHEL.