C. KELLOGG,

Machine for Making Bridge Eyes.

No. 196,299. Patented Oct. 23, 1877.

Fig. 1.

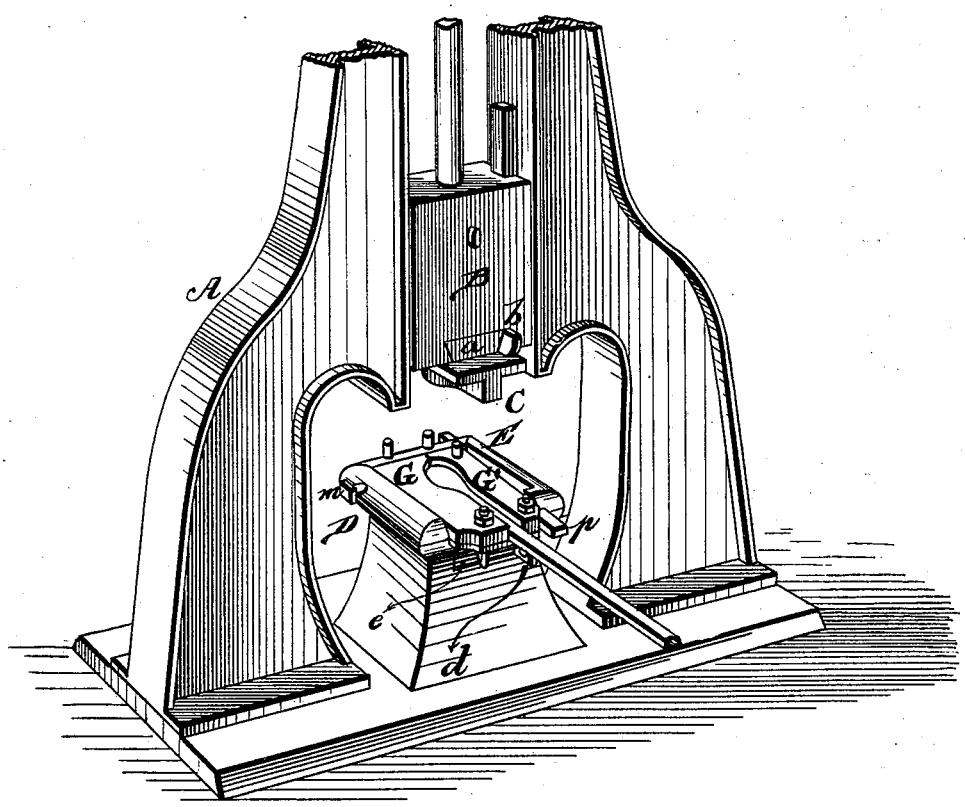

Fig. 2.

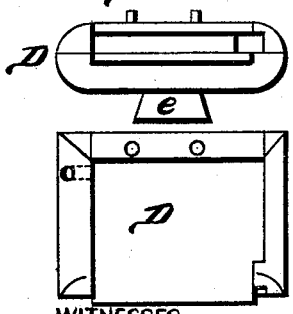

Fig. 3.

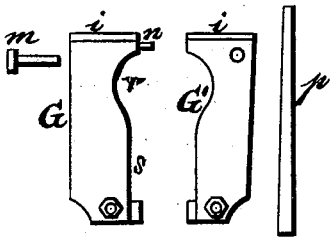

Fig. 4.

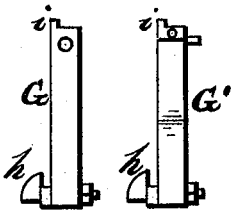

Fig. 5.

WITNESSES.

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IMPROVEMENT IN MACHINES FOR MAKING BRIDGE-EYES.

Specification forming part of Letters Patent No. **196,299**, dated October 23, 1877; application filed August 25, 1877.

To all whom it may concern:

Be it known that I, CHARLES KELLOGG, of Buffalo, in the county of Erie and State of New York, have invented a new and valuable Improvement in Machines for Making Bridge-Eyes; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a perspective view of my machine for making bridge-eyes; and Figs. 2, 3, 4, and 5 are details thereof.

The nature of my invention consists in the construction and arrangement of a machine for manufacturing eye-bars for bridges and other structures, as will be hereinafter more fully set forth.

The annexed drawing, to which reference is made, fully illustrates my invention.

A represents the frame of a steam-hammer, in which is a vertically-reciprocating hammer or ram, B. In the under side of the hammer B is secured the follower C, of suitable shape for the purposes intended, by means of a dovetailed tenon, *a*, and key *b*, as shown.

D represents the anvil-block, upon which is secured the die-box E by means of a dovetailed tenon, *e*, and key *d*, or by any other suitable means.

G and G′ are the cheeks that form the die in which the follower C works for forming the eye-bar. These cheeks are constructed substantially in the form shown, having their inner faces made concave at *r*, to form a cylinder when united together, and having the outer ends of their inner faces *s* made straight, so as to bear against the bridge eye-bar when the cheeks are closed, and hold it securely in position as the eye is being formed, and have at their inner ends rabbets *i i*, to fit under corresponding shoulders in the die-box, while at their outer ends they have hook-bolts *h h*, to fasten on the front end of the die-box.

The cheek or jaw G is stationary, and held in place by a dowel-pin, *m*, and the two cheeks are, at their inner ends, connected by a dowel-pin, *n*, while the jaw G′ is movable, and held in place by a key, *p*, as shown in Fig. 1 of the drawing.

The operation is to pile sufficient iron on the end of a bar to form the eye or head, and when at a welding-heat the end of the bar, with the pile, is placed in the die formed by the cheeks or jaws G G′. Then, by the action of the follower or drop C, the eye is formed of a shape according to the faces on the cheeks or jaws G G′. While the eye is being formed the other end of the bar is held against a stop that brings the bar to the required length.

When finished the key *p* is removed or moved back, which allows the jaw or cheek G′ of the die to move back, and the bar with the formed eye can be removed.

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

1. The combination of the stationary cheek G and the movable cheek G′, held to the die-box E by rabbets *i i* and hook-bolts *h h*, the dowel-pins *m n*, and key *p*, substantially as and for the purposes herein set forth.

2. In a machine for manufacturing bridge-eyes, the combination of a drop, an anvil having a die-box, in which are a stationary cheek, G, and movable cheek, G′, provided with the concavities *r* and straight portions *s*, bearing against the sides of the blank when the bridge-eye is being formed, to hold it securely in position, the cheeks being held in the die-frame by a movable key, substantially as described, and for the purposes set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

CHARLES KELLOGG.

Witnesses:
AMMI CUTTER,
WM. JOHNSON.