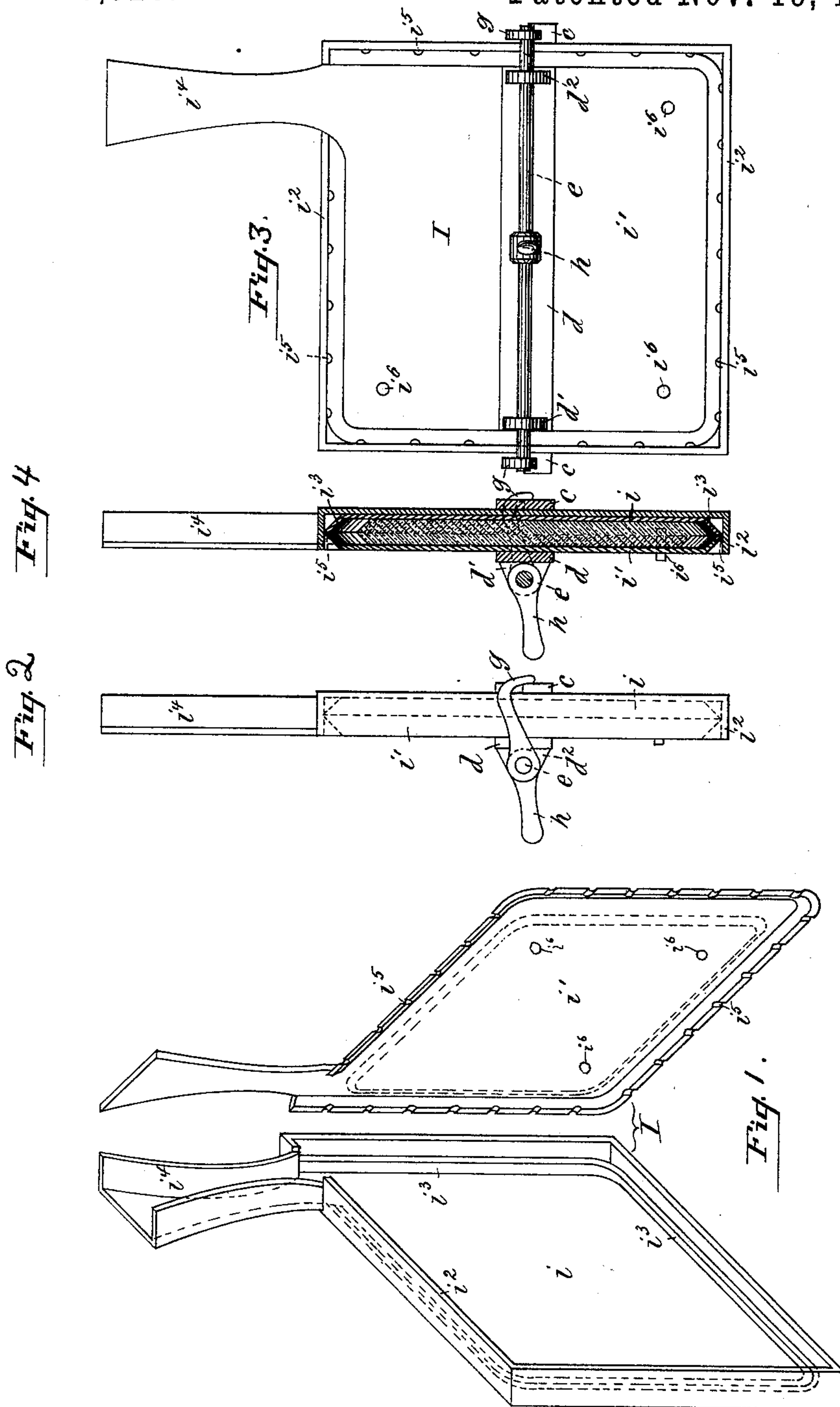


(No Model.)

C. PAYEN.  
MOLD FOR CASTING METALS.

No. 415,328.

Patented Nov. 19, 1889.



WITNESSES:

Hermann Bornmann.  
Thomas M. Smith.

INVENTOR:

Clement Payen,  
By J. Walter Douglas.  
Atty.

# UNITED STATES PATENT OFFICE.

CLÉMENT PAYEN, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE  
ELECTRIC STORAGE BATTERY COMPANY, OF GLOUCESTER CITY, NEW  
JERSEY.

## MOLD FOR CASTING METALS.

SPECIFICATION forming part of Letters Patent No. 415,328, dated November 19, 1889.

Application filed January 19, 1888. Serial No. 261,290. (No model.)

*To all whom it may concern:*

Be it known that I, CLÉMENT PAYEN, a citizen of the Republic of France, but now residing at the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Molds for Casting Frames Around Metal or other Plates, &c., of which the following is a specification.

My invention relates to certain improvements in metal molds for casting frames around plates or other structures.

The object of my invention is to provide a two-part mold of simple construction with a neck and with means for clamping the parts together, so that a metallie substance or material in a liquid or molten state may be poured through said neck into the mold to become cast around a metal or other plate suitably mounted in the mold, for use subsequently as an element of a secondary or storage battery.

The nature of my invention will be more fully understood by reference to the accompanying drawings, forming part hereof, and in which—

Figure 1 is a view in isometric perspective of the two-part mold detached. Fig. 2 is an end view thereof. Fig. 3 is a top or plan view of said mold, showing also means for clamping the two parts together; and Fig. 4 is a longitudinal central section through said mold, showing the particular construction thereof and a plate with a beveled frame or border cast around the same.

Referring to the drawings for a further description of the invention, I is a mold made of cast-iron or other suitable material in two parts or sections *i* and *i'*. The section *i* may be in the form of a rectangular parallelepipedon, if desired, with a rim or flange *i<sup>2</sup>* around the respective sides thereof, as shown in Figs. 1 and 4. Rigidly secured to the bottom of the part or section *i* is a beveled edge plate *i<sup>3</sup>*; or instead of this plate being mounted therein a beveled rim *i<sup>3</sup>* may be rigidly secured to the interior surface of said section, as shown in Fig. 1. With the section *i* is formed a funnel-shaped neck *i<sup>4</sup>* for the introduction of

material into the mold when the two parts *i* and *i'* are clamped together in a manner to be presently fully described. The section or part *i'* of this mold has beveled-off edges corresponding with those of the part *i*. In the beveled edge section *i'*, at suitable distances apart, are formed grooves *i<sup>5</sup>*, constituting air or vent holes when the two parts of the mold are clamped together.

In the body of the part *i'* of the mold, as shown, for instance, in Fig. 3, are formed at suitable distances apart small openings *i<sup>6</sup>* for the introduction of small pins or pegs, which are driven into the plate mounted in the mold to be framed in order to hold the same in proper position therein while lead or other metallic substance or material in a liquid or molten state is being poured into said mold I through the funnel-shaped neck *i<sup>4</sup>* thereof to form a narrow beveled frame with or without a lug or terminal around the plate.

To the section *i* is rigidly secured a metal strip *c*, which projects slightly beyond the sides thereof, and onto the opposite section *i'* is attached a metal strip *d*, provided with trunnions *d'* and *d<sup>2</sup>* at each extremity, which form bearings for the shaft *e*, and on this shaft is centrally mounted a lever *h*. To each extremity of the shaft *e* is secured a locking-pawl *g*, and these pawls are caused to engage with the strip *c* by means of the lever *h*, and disengaged therefrom to permit of the removal of the framed plate from the mold.

The manner of casting a frame around the plate is as follows: The plate is mounted in the section *i* and the section *i'* placed therein, so that the two parts will occupy a position as shown, for instance, in Fig. 3. The two parts constituting the mold are then clamped together by the actuation of the lever *h*, which causes the pawls *g* on the extremities of the shaft *e* to become engaged with the metal strip *c*, and thereby holding the two sections of the mold firmly together. Pins or pegs may then be inserted through the openings *i<sup>6</sup>* in the beveled section *i'* and driven into the plate to be framed for holding the same in the desired position in the two-part mold. The mold may then be raised into



a vertical position, as illustrated in Fig. 4, and lead or other material in a molten or liquid state poured into the mold through the funnel-shaped neck  $\bar{v}^4$ . The material passes  
5 around the plate, and in a few minutes in cooling becomes cast solidly thereto in the form of a narrow beveled frame or border. When the frame around the plate has become perfectly solid, it may then be removed  
10 from the mold for further treatment or immediate use.

Having thus described the nature and objects of my invention, what I claim as new, and desire to secure by Letters Patent, is—

15 1. The herein-described mold, consisting of two parts, one of which is provided with a funnel-shaped neck and the opposite one with grooves in the edges and openings in the body thereof, a plate mounted in one of said

parts, and pins or pegs driven into said plate 20 through said openings, substantially as and for the purposes set forth.

2. The herein-described metal mold, consisting of two parts, one of which is provided with a tongue and with grooves in the edges and 25 openings in the body thereof, and the opposite part provided with a neck, and means, as described, for clamping the two parts together, substantially as and for the purposes set forth. 30

In witness whereof I have hereunto set my hand in the presence of two subscribing witnesses.

CLÉMENT PAYEN.

Witnesses:

CHAS. HART,  
WM. R. WILEY.