

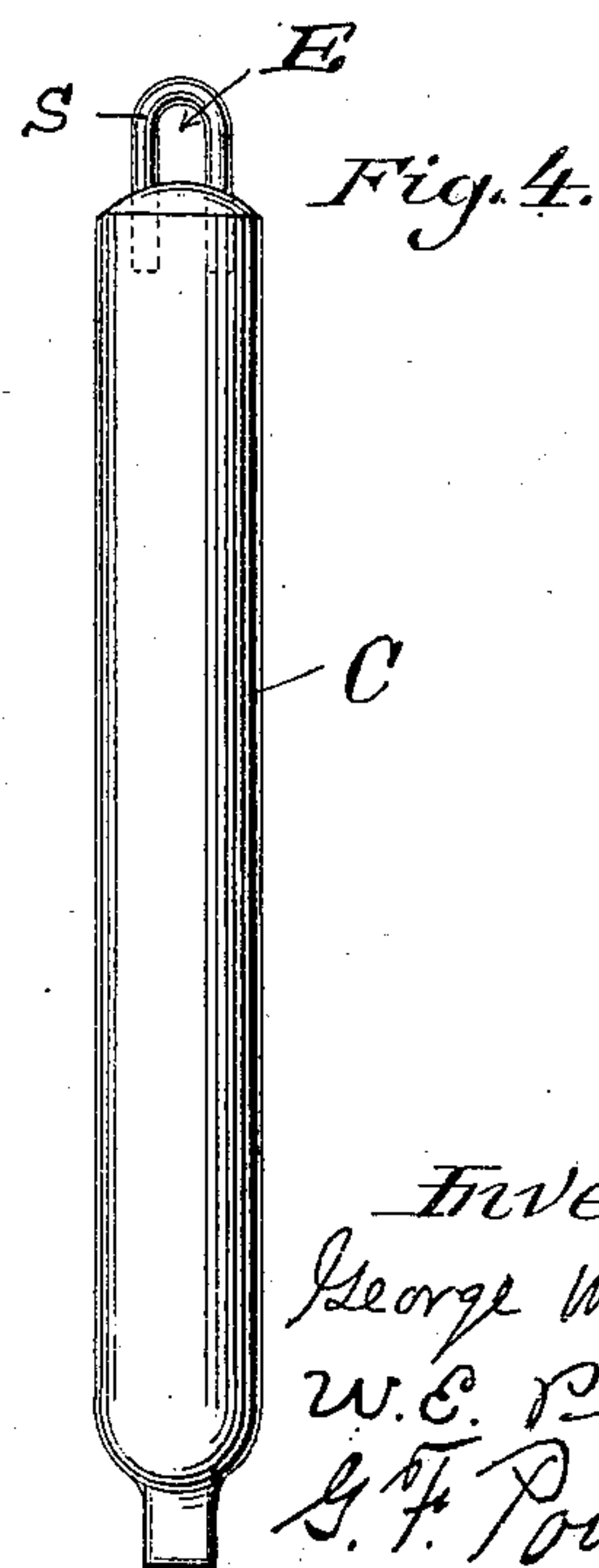
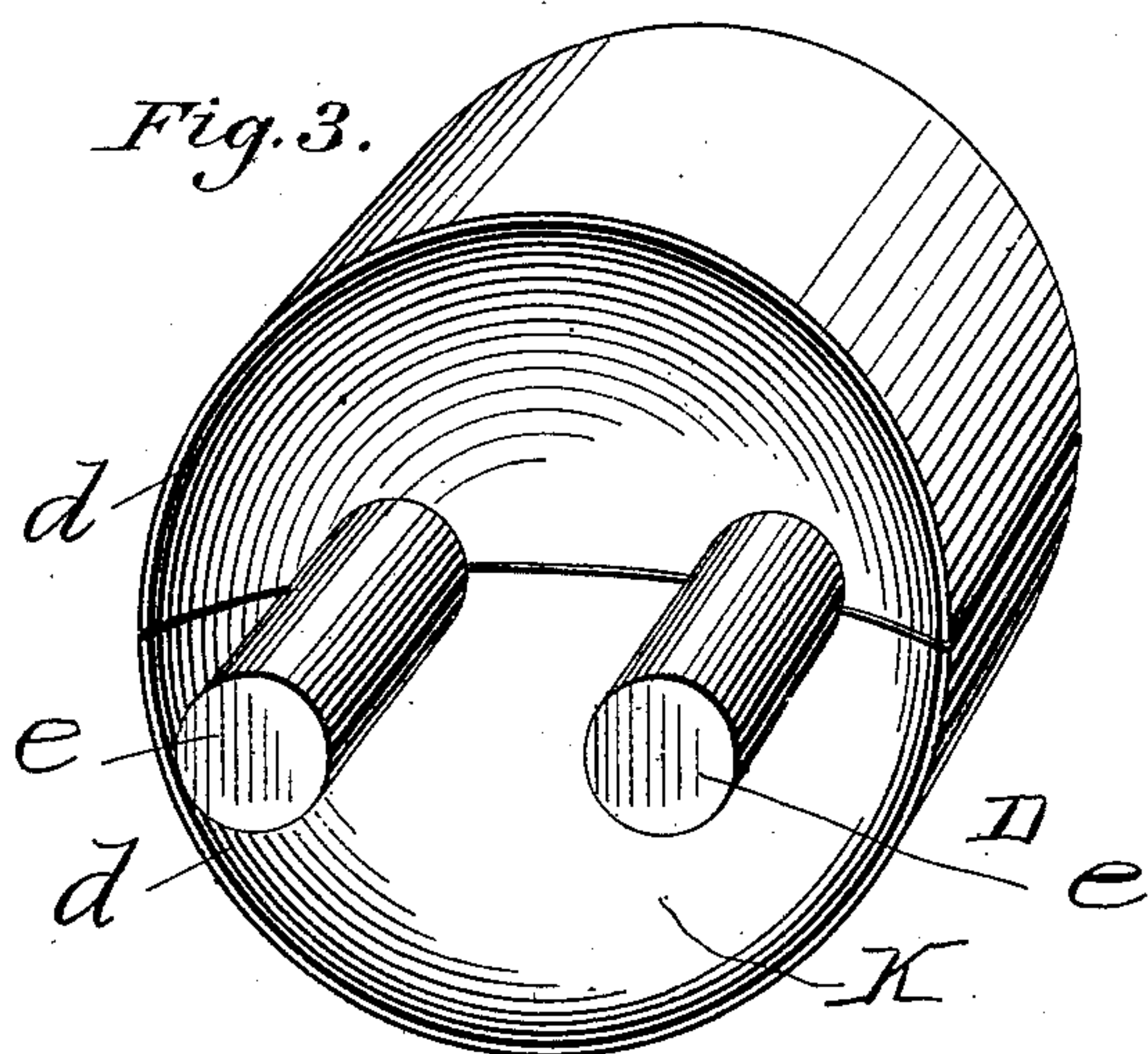
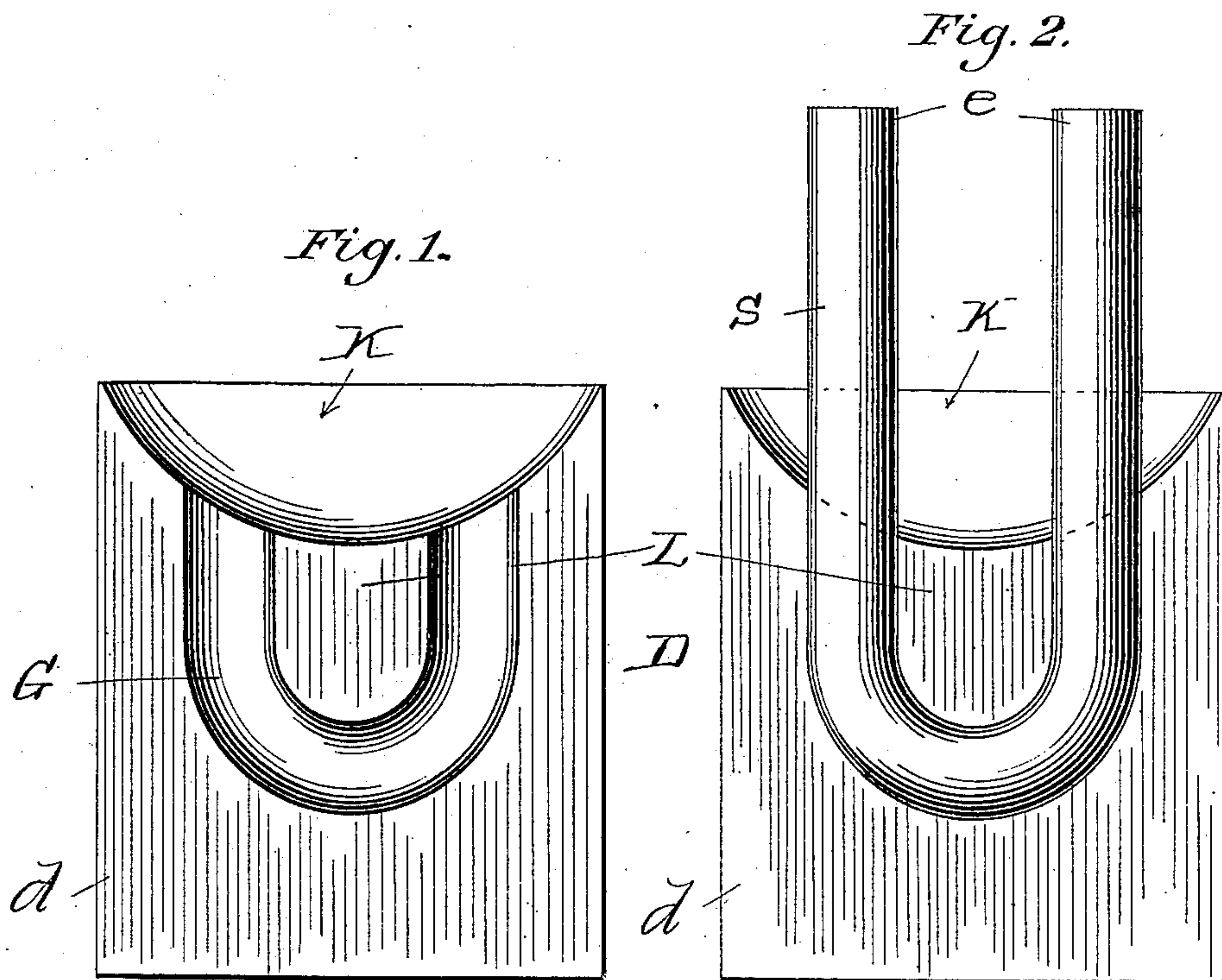
G. W., W. E. & G. F. PORTER.

MOLDING DEVICE.

APPLICATION FILED MAY 22, 1908.

903,770.

Patented Nov. 10, 1908.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

GEORGE W. PORTER, WILLIAM E. PORTER, AND GEORGE FRANK PORTER, OF  
PUNXSUTAWNEY, PENNSYLVANIA.

## MOLDING DEVICE.

No. 903,770.

Specification of Letters Patent.

Patented Nov. 10, 1908.

Application filed May 22, 1908. Serial No. 434,427.

*To all whom it may concern:*

Be it known that we, GEORGE W. PORTER, WILLIAM E. PORTER, and GEORGE F. PORTER, of Punxsutawney, Pennsylvania, have invented a certain new and useful Molding Device, of which the following is a specification.

Our invention relates to means for forming eyes in metal bodies such as sashweights. In the manufacture of sash weights the eye for the attachment of the cord has heretofore generally been formed by casting the eye integrally with and of the same metal as the weight. We have found that eyes so formed are frequently defective and are apt to break in service. To avoid these difficulties and to improve and cheapen the cost of the manufacture of a casting such as a sash weight with an eye we have devised our invention, which will now be described, with reference to the accompanying drawing, which illustrates exemplifying structures for carrying out the invention. It is to be understood that changes in these structures may be made without departing from the invention.

Figure 1 is a view of the inner face of one half of the two-part die. Fig. 2 shows the other half of the die with the eye or staple in position. Fig. 3 is a perspective end view of the die in operative position with the staple in place. Fig. 4 is a side elevation of a completed sash weight with the eye incorporated in it.

We employ a die D consisting of two halves *d*. The adjoining faces of the die are provided with grooves G adapted to receive the closed end of the staple S. A land L is left within the groove of each die section and this serves to prevent displacement of the staple. The ends *e* of the staple project from the die as seen in Fig. 3. The die is generally formed with a depression K in the end from which the staple protrudes. The die sections being separate, a staple is put in position in one of them as shown in Fig. 2 and the other half of the die is then put in place. The appliance is then ready as

shown in Fig. 3 to put in the mold. The die is arranged at the end of the aperture in the mold which is to form the body of the casting and the ends *e* of the staple project into this body aperture. The cast is then made, the molten metal flowing around the ends of the staple and taking the form of the depression K in the die. When the casting cools, the mold is knocked away, the die sections are readily removed from the casting and staple and the staple remains with its ends embedded firmly in the casting C, Fig. 4, forming an eye E.

Evidently the staple may be made of malleable or wrought iron or of other suitable material so that danger of its breakage in service is practically eliminated by providing longitudinally separate eyes for the castings. Practically all castings are perfect and there is no waste on account of seconds.

We claim:

1. The combination of a die adapted to be inserted in a mold and consisting of two parts provided with adjoining grooves, and a staple removably held in the grooves with its ends projecting beyond the end of the die.

2. The combination of a die adapted to be inserted in a mold, consisting of two halves each of which is provided with a U-shaped groove and a staple removably secured in the grooves with its ends projecting beyond the end of the die.

3. The combination of a die consisting of two separable parts, grooves in the adjoining faces of the parts, and a staple removably held in the groove with its end projecting beyond the end of the die, the end of the die surrounding the ends of the staple and being depressed to suitably shape the end of a casting.

In testimony whereof we have hereunto set our hands.

G. W. PORTER.  
W. E. PORTER.  
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Witnesses:

JAMES RICH,  
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