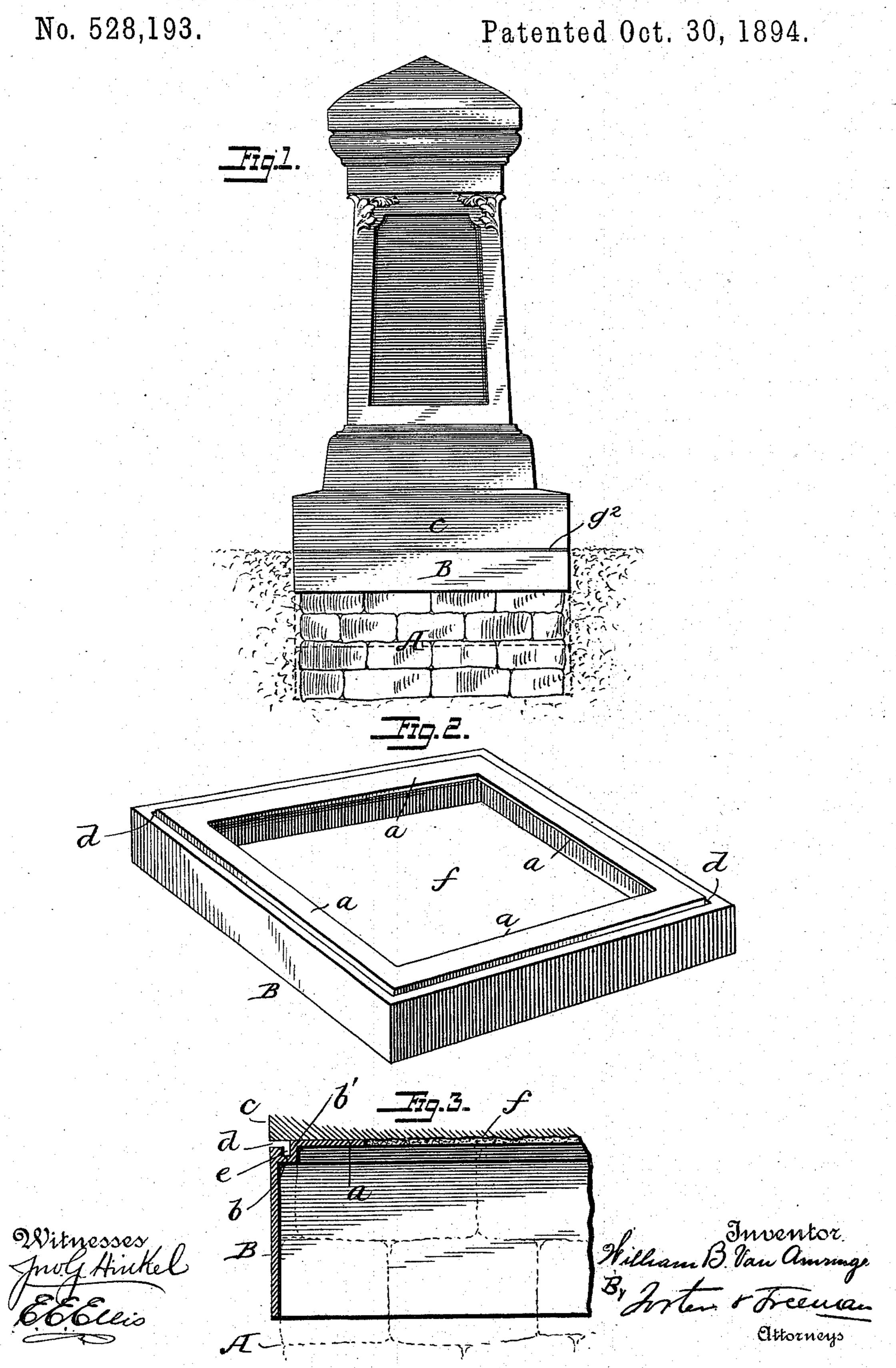
## W. B. VAN AMRINGE.

#### CONSTRUCTION OF MEMORIAL MONUMENTS.

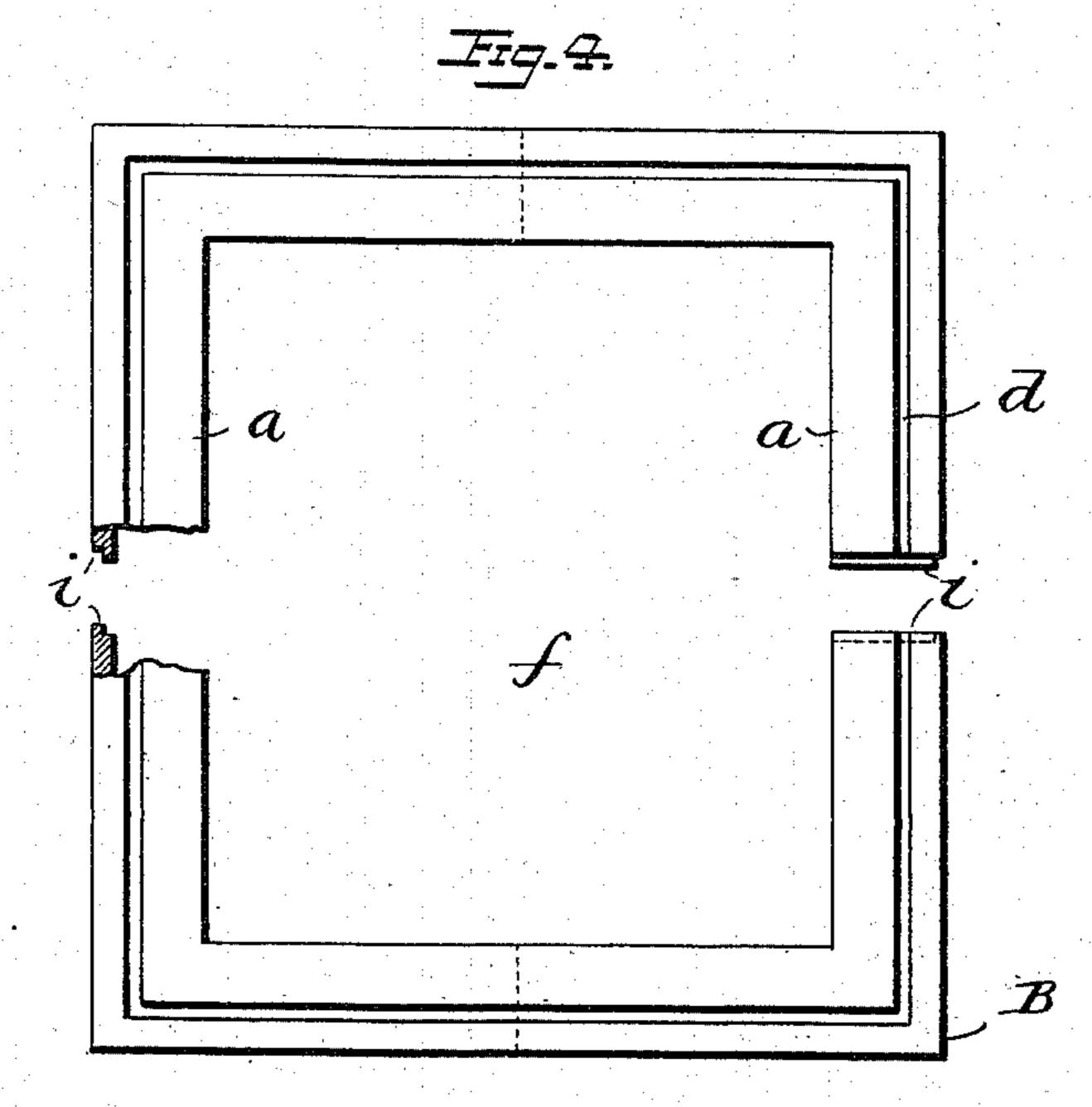


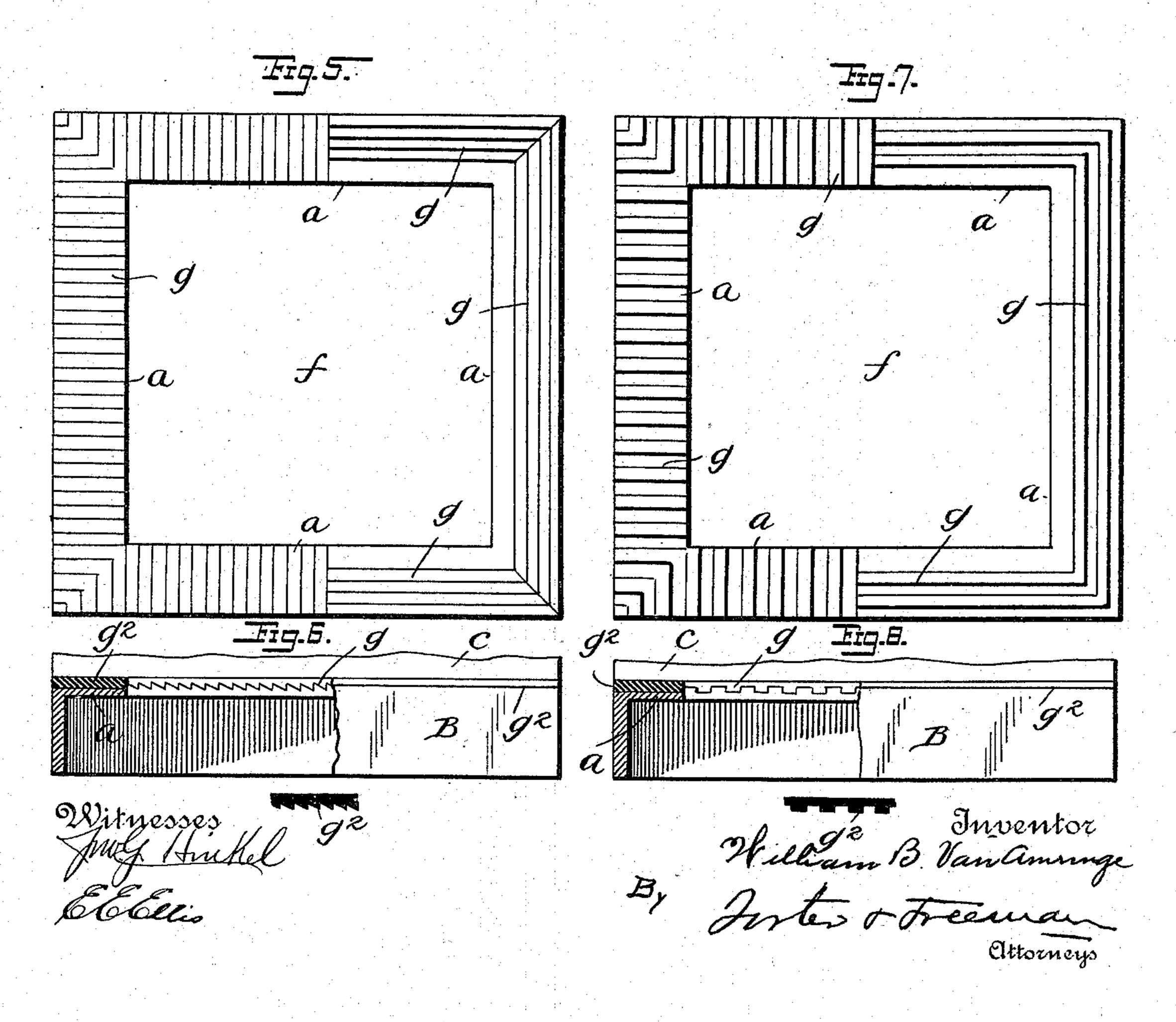
## W. B. VAN AMRINGE.

CONSTRUCTION OF MEMORIAL MONUMENTS.

No. 528,193.

Patented Oct. 30, 1894.





# UNITED STATES PATENT OFFICE.

WILLIAM B. VAN AMRINGE, OF BOSTON, MASSACHUSETTS.

### CONSTRUCTION OF MEMORIAL MONUMENTS.

SPECIFICATION forming part of Letters Patent No. 528,193, dated October 30, 1894.

Application filed October 6, 1893. Serial No. 487, 357. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM B. VAN AM-RINGE, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in the Construction of Memorial Monuments, of which the following is a specification.

This invention relates to certain new and useful improvements in foundations for superstructures; and it consists substantially in such features of construction, arrangement and combinations of parts as will hereinafter be more particularly described.

be more particularly described.

The invention has reference more particularly to the construction of foundations for private monuments or memorial tablets, although it will be understood that the same is equally applicable to public monuments

20 or other similar superstructures.

Heretofore in the mounting or erection of memorial tablets or monuments upon the foundations of masonry usually provided therefor, it has been the practice in many in-25 stances to build the foundation up to or somewhat above the surface of the ground, and then after making the upper course thereof into as true a bed as is permitted by the nature of the material employed, to level off 30 the upper surface of said foundation by filling the interstices with mortar, cement, or the like, and finally placing the monument or tablet upon the foundation to become "set" in the position it is intended the same shall 35 occupy. When thus arranged, the joint between the base of the monument or tablet and the upper course or surface of the foundation has usually been sealed or pointed up with mortar, cement, or the like, so as to give 40 to the joint as neat an appearance and finish as possible; and so great has been the difficulty to secure a close joint at this point, owing to the irregular surface of the masonrybed, that it has heretofore been impracticable 45 to use lead or similar material to seal the joint except in such instances where cut stone has been employed, and the use of which stone is entirely too expensive. On account of such expense it has been customary there-50 fore to point up or pack the joint as well as the larger joints and crevices with cement

of time becomes loosened and works itself out of the joints almost as soon as frost appears. In other former instances also the 55 earth surrounding the foundation has usually been graded up so as to completely conceal from view the point of union or connection of the base to the foundation; and with this plan and arrangement, owing to the 60 rapid sinking and washing away of the earth from around the joint, the latter soon becomes exposed and presents a very uneven and unsightly appearance which very seriously detracts from the whole effect of the 65 monument. Again, where the joint is sealed up by "pointing" the mortar or cement employed for the purpose soon becomes broken or crumbled, and, either falling out of itself, or being forced out by the action of frost, 70 leaves the joint exposed and very naturally weakens the support.

As the weakest point of a masonry foundation is usually within a few inches of the top surface, to protect and strengthen such point 75 obviously is to protect and strengthen the

whole structure.

The object of the present invention is to provide means whereby the joint between the upper surface of the foundation and the 80 base of the monument or tablet; will be most effectually sealed and not liable to destruction by the elements. Also, to so construct the base and joint as to always present as neat an appearance and finish as any other 85 part to be found on the monument; and finally, to so connect or unite the base to the foundation so that the latter will be greatly strengthened at its weakest point, the joint preserved indefinitely, and the liability to 90 weakening and unsettling due to the sinking or washing away of the surrounding earth, entirely overcome.

Referring to the accompanying drawings, owing to the irregular surface of the masonry-bed, that it has heretofore been impracticable to use lead or similar material to seal the joint except in such instances where cut stone has been employed, and the use of which stone is entirely too expensive. On account of such expense it has been customary therefore to point up or pack the joint as well as the larger joints and crevices with cement mortar which in a comparatively short space

Fig. 4, is a top or plan view of the cap when composed of sections so as to enable the same to be placed round the base-joint of monuments or tablets already standing. Fig. 5, is a top view of the preferred form of the cap, the same illustrating the construction of spaces or channels for the reception of sealing material, as lead. Fig. 6, is a cross section of Fig. 5. Fig. 7, is a view similar to Fig. 5, illustrating a modification in the form of sealing spaces or channels. Fig. 8, is a

cross-section of Fig. 7.

In the practice of my invention, I resort to the usual foundation A, of masonry, which foundation may either be built or extended up to a point above the ground surface level or flush with such surface, or slightly below the same, as occasion or circumstances may render desirable. The said foundation may be of any size or dimensions, and may be either tapering at the sides, or straight up, or may be round or oval in cross-section, the particular shape or dimensions making no difference whatever since the cap or joint piece hereinafter referred to will in all cases

When the foundation has been built or erected to the height desired, I place over the top thereof, a metallic frame or cap B, which corresponds to the shape of the foundation, and which, as shown, is of a height to extend down around the sides of the foundation when properly placed in position, as indicated in Fig. 3. As shown in the several figures of

35 the drawings, the said cap or frame is rectangular in shape, and is provided with a horizontal flange a, extending inwardly from the sides all around at the top, the said flange being somewhat sunken and then elevated from said sides as shown at b, b', (Fig. 3) so that when the base c, of the monument or tablet

is placed therein a space or recess d, will be formed all around for the reception of lead or other sealing material which, from the construction shown and explained, may be poured in while in a molten state and then allowed to harden. From this construction it will ap-

to harden. From this construction it will appear that by reason of the space or recess d, being sunken all around as shown at e, the lead or other sealing material will become locked in the recess after hardening and thus

will there be no liability of the filling working loose or falling out as in the instance recited of "pointing" the joint with mortar or

55 cement.

It will further be seen that the under side of the base of the monument or tablet may be finished off smooth all around for a distance from its edges equal to the width of the flange a, so as to effect an even bearing upon such flange, while the surface of the under side of the base inclosed within such finished portion may be left unfinished so as to leave projections to take into the cement or other binding material that is filled into the opening f, of the cap or frame. The said cap be-

ing placed upon the foundation as indicated,

cement or binding material is filled or poured into the opening thereof and scraped off so as to present an even surface on the top of the 70 foundation flush with the upper surface of the flange a, the tablet or monument being then placed into position and the lead poured into the sealing space or the joint preferably sealed as hereinafter more particularly de- 75 scribed. When the binder hardens, the monument will be securely held in place as usual and the protruding edges of the lead may be trimmed or cut off in any convenient manner so as to make the seal flush with the sides 80 of the base and cap and not present an unsightly appearance. By extending the sides of the cap downwardly, the weakest portion of the foundation will be materially strengthened, and the whole structure thereby ren- 85 dered capable of standing indefinitely and with no liability of displacement or sagging.

In some instances it may be desirable to inclose or surround the entire foundation in a similar manner, see dotted lines Fig. 1; and 90 the lower edge of the upper cap or frame may then be made to connect with or join to the upper edge of the lower one in any suitable manner. In other instances the cap when used as just described may be cast in 95

one piece.

Again it may be desirable to repair and seal the corresponding joints of monuments or tablets already standing, in which case I construct the cap or frame in sections, (see 100 Fig. 4) so that the same can be more readily placed around the foundations and secured in place in any suitable manner. The contiguous ends of the cap or frame in this instance would be formed to lap or connect 105 (see "i" Fig. 4) and the joinder of the parts could then be effected either by soldering,

fusing, or otherwise.

As a more convenient way of constructing the cap or frame so as to better receive and 110 hold a seal, such for instance as lead or other soft metal, I construct the upper surface of the flange a, of such cap with a series of channels g, formed by fluting or creasing the metal of which it is composed, and then after 115 the cap or frame is placed on the foundation, I lay on the flange a strip of lead or other soft metal  $g^2$ , having projections on its under side to enter the channels g, (see Figs. 6 and 8,) and when the monument or tablet is lifted 120 or erected into its place the weight thereof will squeeze the lead into the channels, thereby closing the same tightly and making a secure joint. If by the weight of the monument or tablet any of the lead or other soft 125 metal is caused to protrude from the sides of the cap and base by compression the protruding portions may be easily trimmed off even therewith in any suitable manner. Preferably I extend the channels g, lengthwise 130 with each portion of the cap or frame or parallel to the edges of said cap, as shown more clearly at the right hand portion of Figs. 5 and 7; while in other instances I may make

them extend all the way across the upper surface of the cap, or transverse to the length of the sides, as shown at the left-hand portion of the figures referred to. I find it also 5 equally as effective for my purpose, when using the longitudinal form of channels or spaces, to only have such channels or spaces cover a limited portion of the surface of the cap or frame from the outer edges of the latro ter, thereby leaving the remaining surface smooth. This gives all the advantages to throughout the whole width of the sides of the frame and it is apparent that the filling 15 or seal after having once been so secured in place cannot be easily withdrawn, nor is there any danger or likelihood of the same falling out from any cause. In order to properly intersect at the corners it will be observed that 20 the channels or spaces g, gradually decrease in length inwardly, and it is of course understood that the ends of the lead or other filling pieces will be correspondingly formed.

I had also contemplated the use of wedge-25 shaped pieces or blocks of lead or other similar material to be driven into the joint between the tablet and base, the protruding portions of which were to be afterward shaved off flush. With this construction, however, 30 for an unskilled workman to attempt to seal the joint the material of which the monument is made is liable to become chipped off, and for this as well as for other reasons, I prefer to use the construction and arrangement 35 shown.

On reference to Figs. 7 and 8, a modification will be seen in the form or shape of the recesses or channels formed in the flange a, and wherein is shown a series of rectangular 40 shaped notches.

It will be understood that the cap or frame may be constructed of any suitable material, either cast or sheet metal, and that in the minor points of construction and arrangement, immaterial alterations could be made.

Without limiting myself, therefore, to the precise construction and arrangement shown, I claim—

1. In the construction of memorial tablets or monuments, or other similar superstruct- 50 ures, the combination with the foundation and base, of a cap or frame extending downward and surrounding the sides of the foundation and formed with a central opening, a binding material filled into said opening on 55 top of the foundation, and a sealed joint between the said cap and base, substantially as described.

2. In the construction of memorial tablets be had even if such channels were made or monuments, or other similar superstruct- 60 ures, the combination with a foundation, of a cap or frame fitted thereon to embrace the sides thereof and provided at the top all around with an inwardly projecting flange having a central opening, a binding material 65 filling said opening, a base finished all around on its under surface for a distance about equal to the width of the flange and unfinished on the remainder of such surface to leave projections for entering the binding, 70 and a sealed joint between the base and cap, substantially as described.

> 3. The combination with the foundation and base, of a cap or frame having the inwardly projecting flange formed with a series 75 of indentations or channels, and a strip of soft metal interposed between said cap and base and compressed into the channels by the weight above, substantially as described.

> 4. The frame or cap provided with down- 80 wardly extending sides and having an upper inwardly projecting flange and central opening, said flange being formed with a series of channels or recesses, substantially as shown and for the purpose described.

5. The cap or frame formed with the longitudinal parallel channels extending for a limited space from the outer edges thereof, substantially as described.

In testimony whereof I have signed my 90 name to this specification in the presence of two subscribing witnesses.

WILLIAM B. VAN AMRINGE.

Witnesses:

WILLIAM T. HAYES, IRA C. HERSEY.