

(Model.)

A. VIVARTAS.  
Receptacle.

No. 236,518.

Patented Jan. 11, 1881.

Fig. 1.

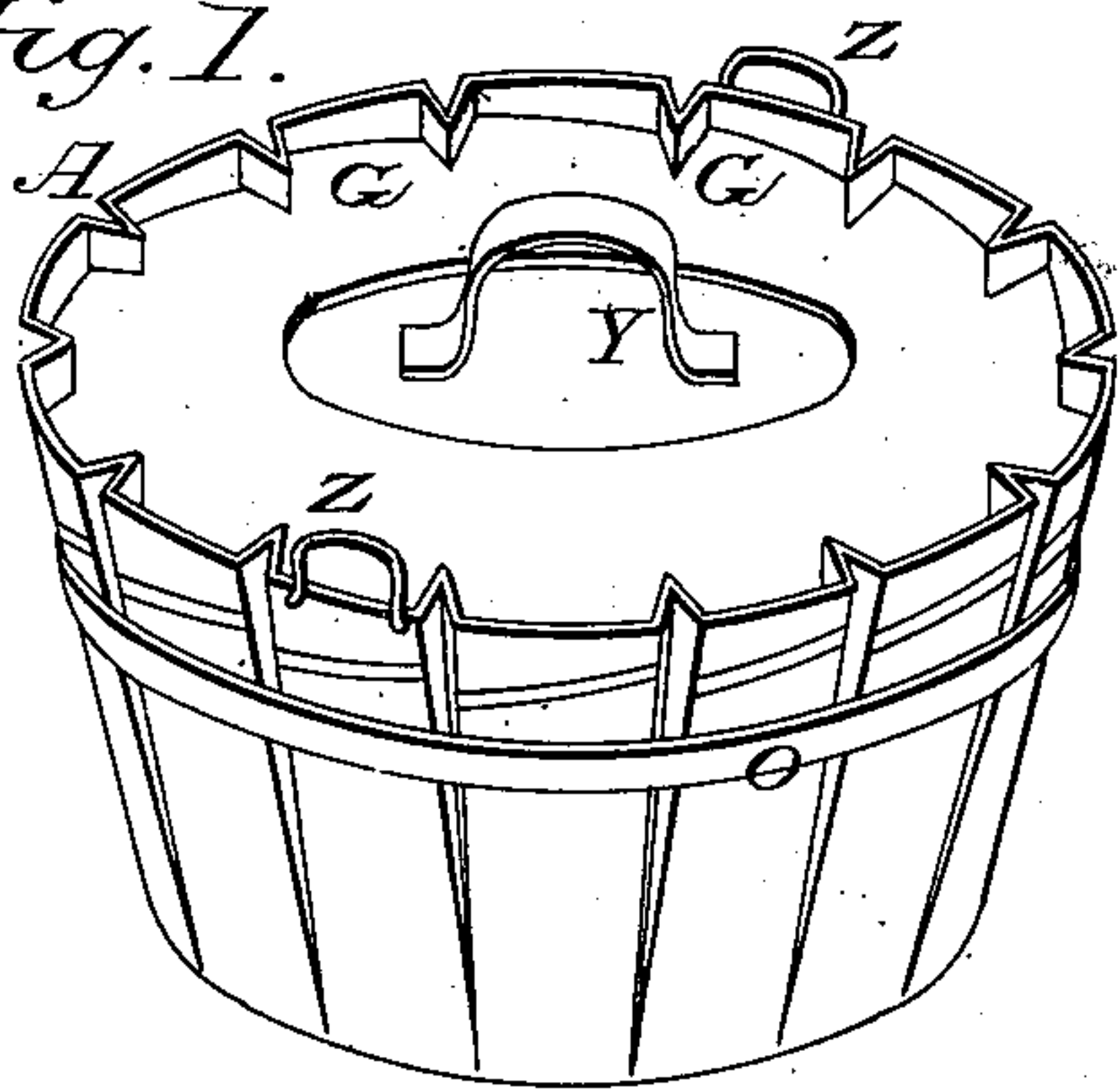


Fig. 2.

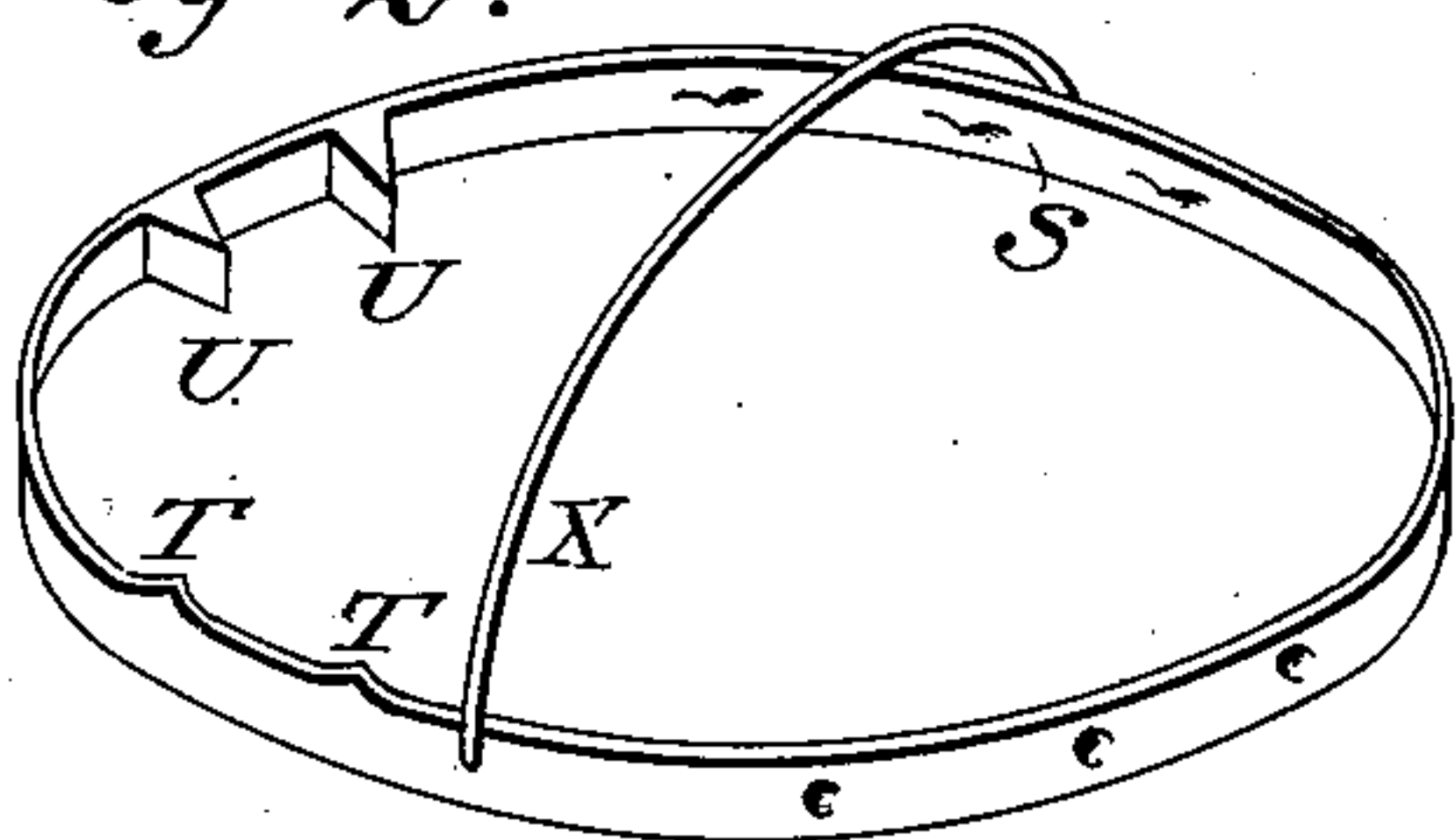


Fig. 3.

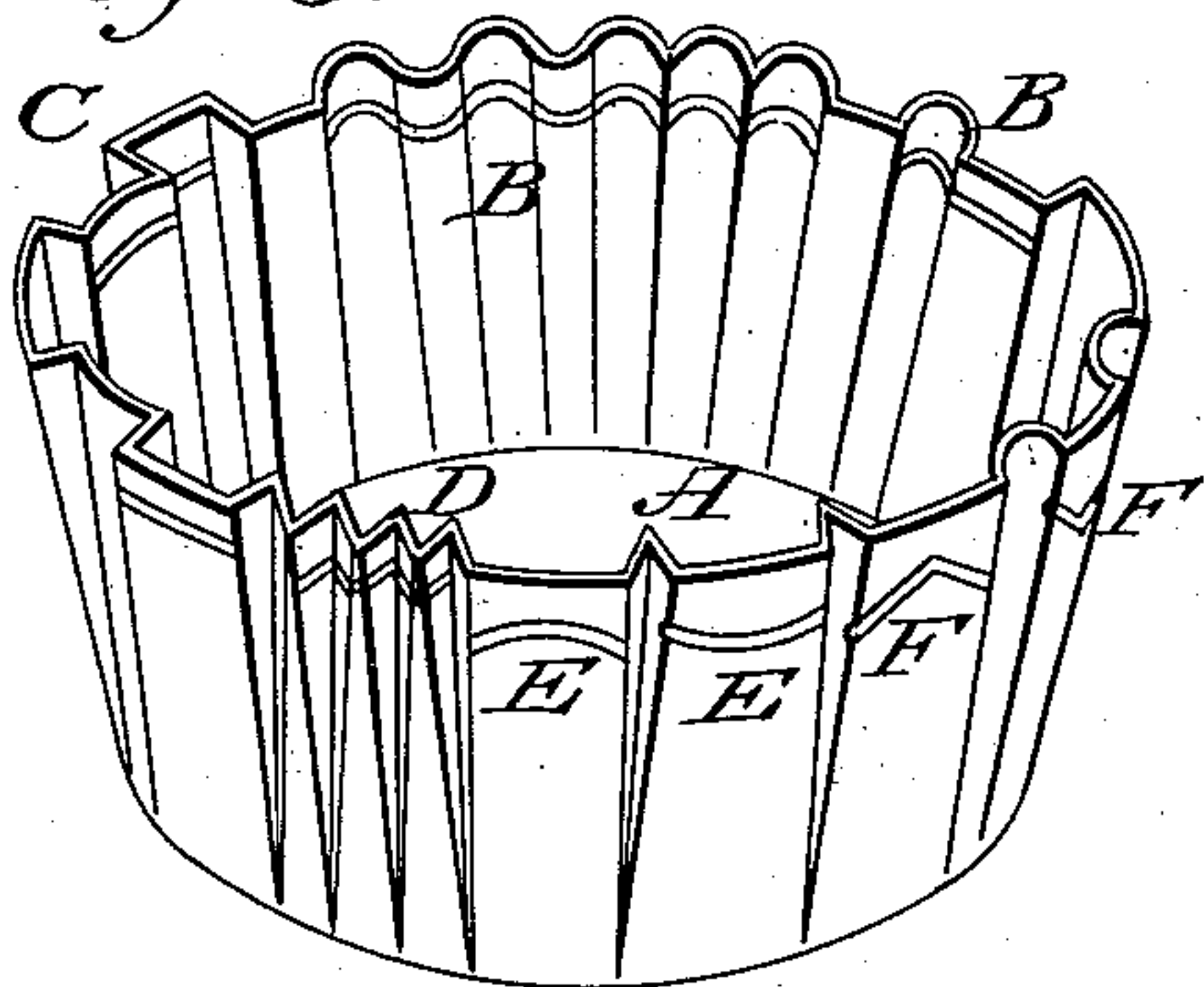


Fig. 4.

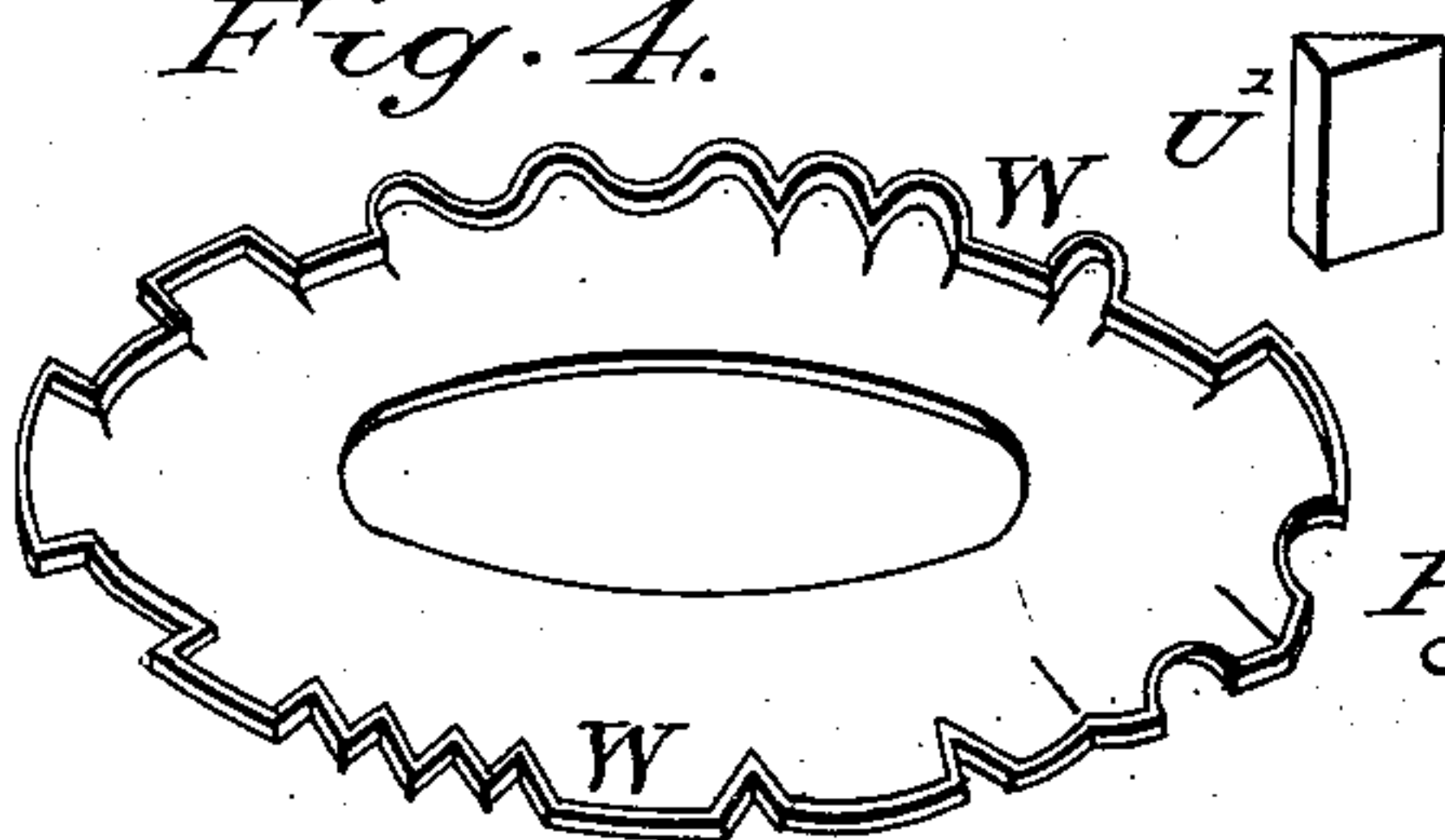


Fig. 5.

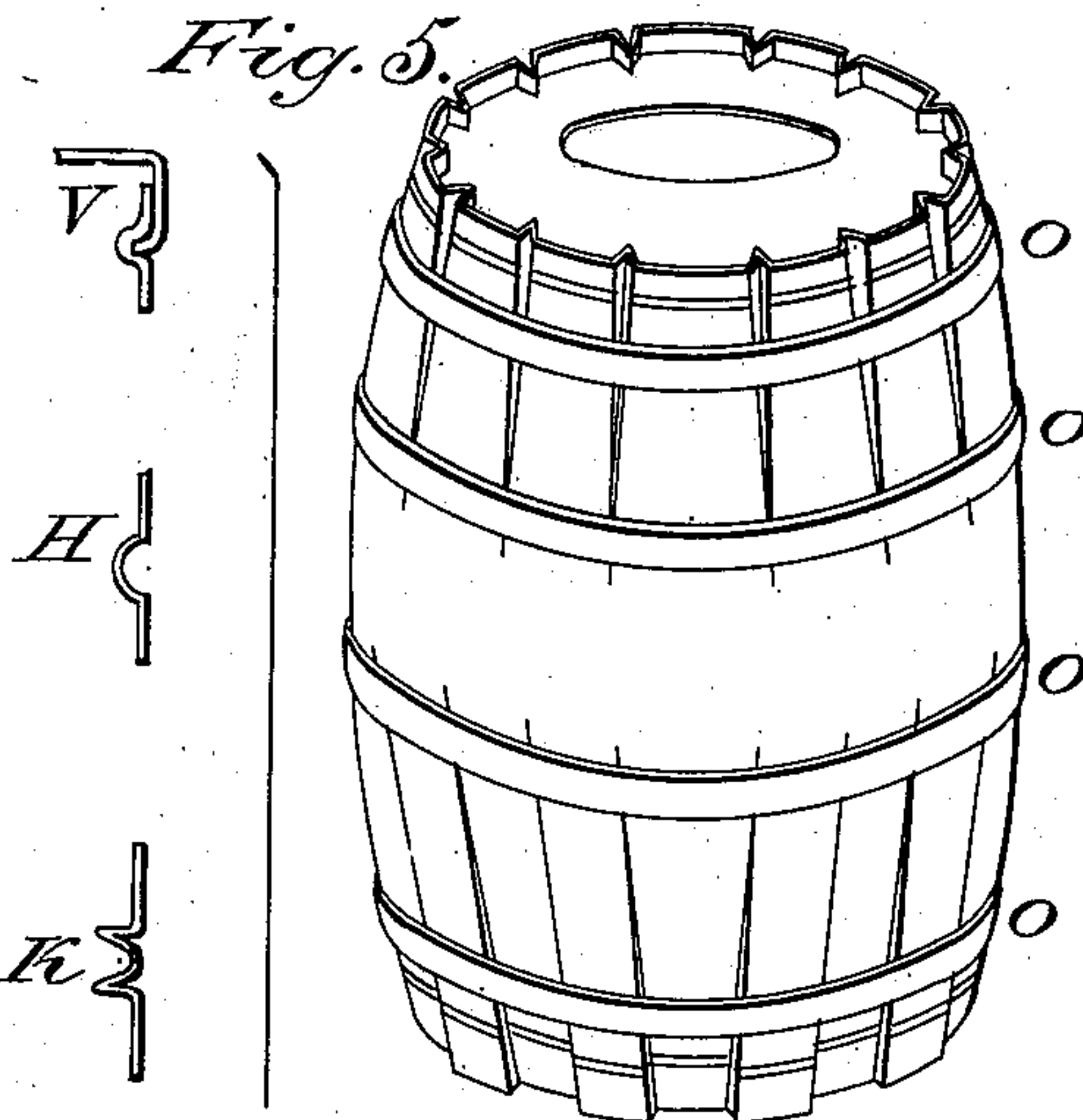


Fig. 9.

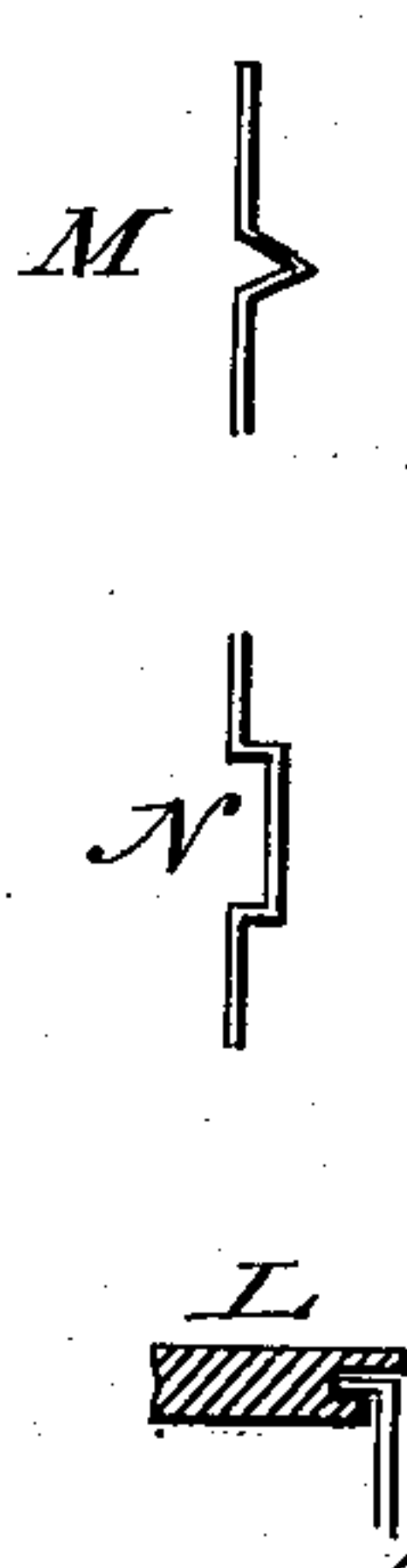


Fig. 6.

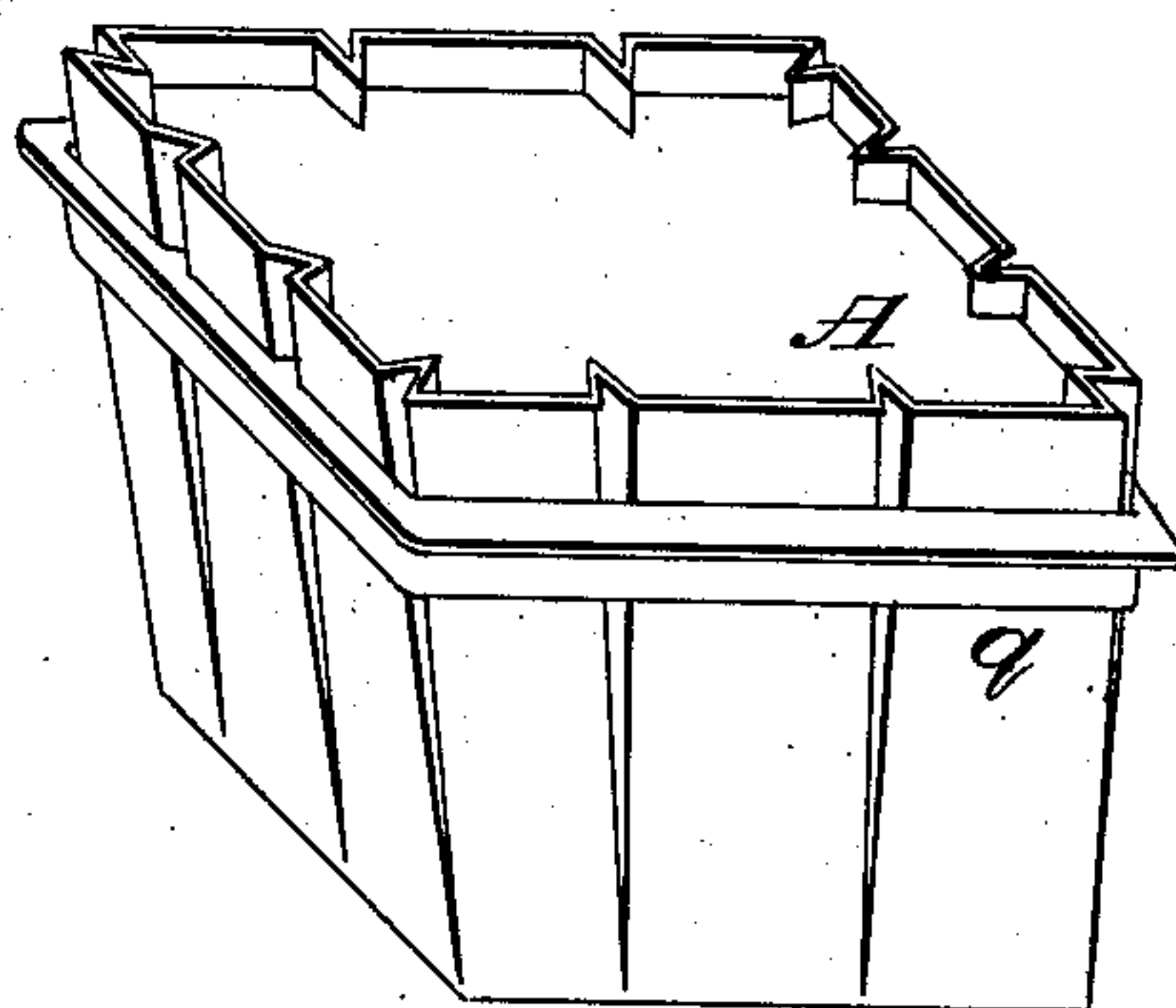


Fig. 8.

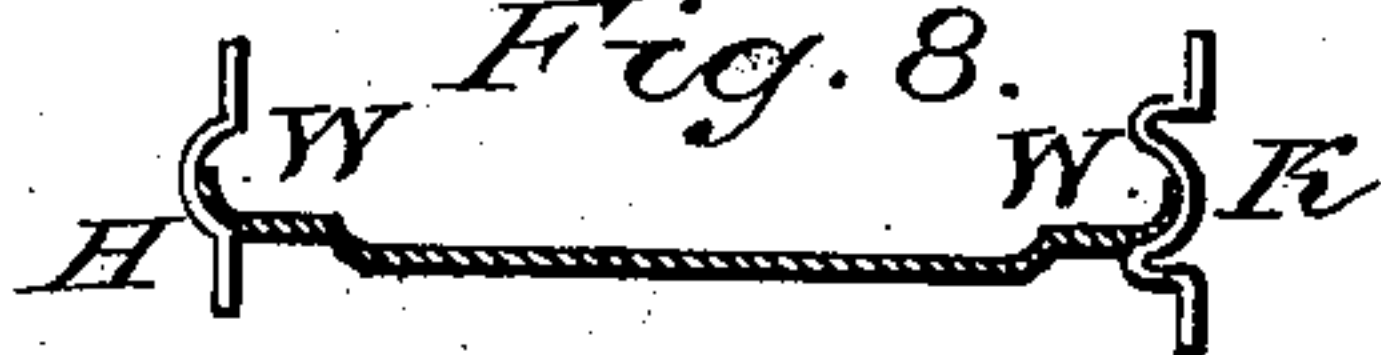


Fig. 7.

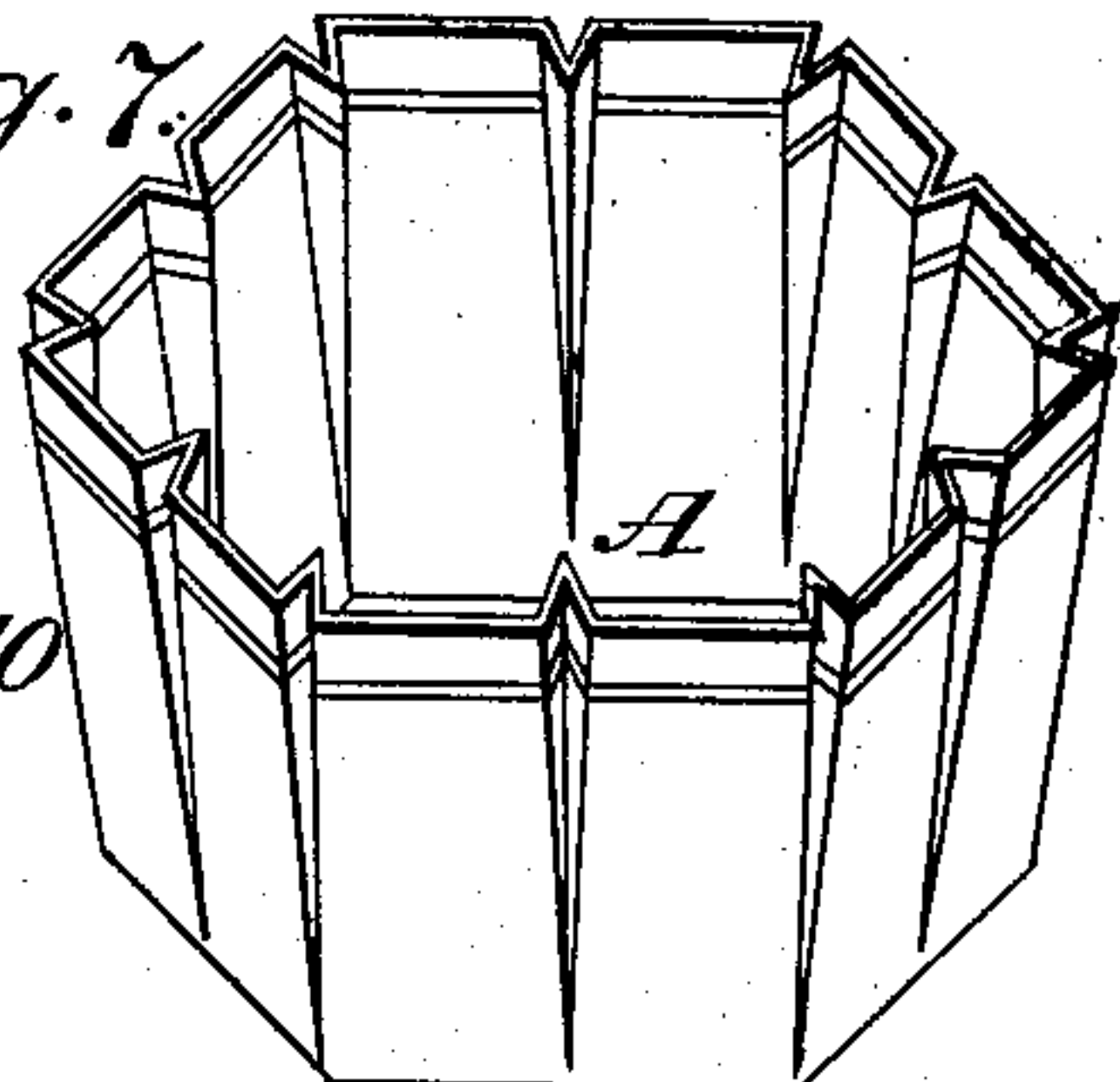
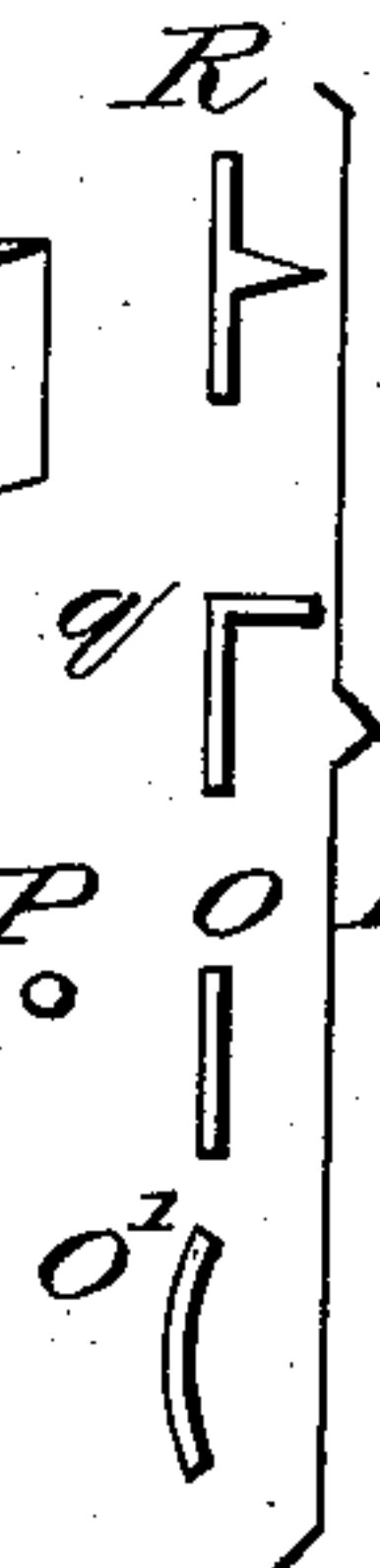


Fig. 10.



Witnesses:

Carl O. Hering  
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Inventor.

Aloha Vivartas



# UNITED STATES PATENT OFFICE.

ALOHA VIVARTTAS, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF, MARK K. HAMILTON, JR., AND CHAS. A. MYERS, OF SAME PLACE.

## RECEPTACLE.

SPECIFICATION forming part of Letters Patent No. 236,518, dated January 11, 1881.

Application filed September 21, 1880. (Model.)

*To all whom it may concern:*

Be it known that I, ALOHA VIVARTTAS, of the city, county, and State of New York, have invented an Improvement in Receptacles, of which the following is a specification.

This invention relates to an improved method of opening, closing, and securing receptacles, such as boxes, barrels, cans, and others, as shown in the accompanying drawings, of which—

Figure 1 is a perspective view of a box or can closed. Fig. 2 is a perspective view of a hoop or binder. Fig. 3 is a perspective view of a box or can open. Fig. 4 is a perspective view of a head or cover. Fig. 5 is a perspective view of a barrel closed. Fig. 6 is a perspective view of a box or can closed. Fig. 7 is a perspective view of a box or can open. Fig. 8 is a sectional view of a head or cover. Fig. 9 is a series of sectional views of details of the croze or joint in various forms. Fig. 10 is a series of sectional views of details of hoops or binders in various forms.

The same letters refer to the same parts.

This invention relates to the constructing of receptacles and their covers in such a manner that the following conditions may obtain: First, the head or cover may be removed and the receptacle opened, or it may be replaced and the same closed at will. Second, the placing or removing of the head shall not necessitate any waste of the contents, as in heading or unheading an ordinary barrel, which, by opening the joints of the staves, causes leakage. Third, the receptacle may be made of a single piece of material, as shown at Figs. 1, 3, 6, and 7, with the head or cover, Figs. 4 and 8, forming the second piece, and by means of the hoop or binder, Fig. 2, the whole may be secured tight and taut without the use of solder, cement, or any packing or calking of any kind. Fourth, the receptacle may be made with straight or parallel sides, and the hoop or binder applied like a common strap with a buckle or fastening; or a rope, twine, or wire may be tied around it, or the receptacle may be tapered for the purpose of forcing on a hoop or binder, in the same manner as in ordinary barrels.

In receptacles of large size the double-tapered

form of the common barrel is to be preferred, whether made of paper, metal, felt, cloth, leather, or wood, or any other suitable material, for the reasons that it is the easiest to handle, whether to "cut" upon its bilge or to roll upon skids; and also the shrink of the material may be taken up by driving the hoops. For smaller receptacles, as fruit, oil, or powder cans or paper boxes the single head and taper will be found the most convenient; but the form and proportion in each case may be varied at pleasure. Some of these forms are shown at Figs. 1, 5, 6, and 7.

It will be seen that this improvement concerns more particularly that part of the receptacle having direct connection with the head or cover. This part is so folded and formed that the parts may open for the reception of the head, and close for the retention of the same, in a manner analogous to the action of the staves of a barrel, while the fold, by its flexibility and elasticity, permits the required movement without permitting the escape of the contents. For this purpose it is not essential to adhere to any one form or proportion of fold or plait, or even of opening, but only that the form and proportion of the cover and of the opening that it closes shall agree. Thus the plaits may be straight-sided, as at A, or curved, as at B, broad, as at C, or sharp, as at D, or otherwise, while the croze may be curved, as at E, or corrugated, as at F, to fit corrugations made in the cover; and at G the croze may take the form of a screw-thread, the cover being made to correspond, by which method the projections S and T of the inside of the hoop or band may be made to engage in the outside of the croze, when, by turning the hoop around; it is forced or screwed farther upon the taper, causing a closer shutting of the joint, and also acting as a lock to prevent the hoop from being accidentally knocked off in handling; and this method of locking the hoop may be employed with other forms of croze that do not act as screws, if desired. The croze may be carried around the plaits, or only a portion thereof, as circumstances may require. In contour the croze may be a plain bead, as H, or it may be sunk, leaving the surface flush for the passage of the hoop, as at K, or it may



be angular, as at M, or rectangular, as at N, or any of these forms may be applied with the croze to the cover, the edge of the receptacle being simply upset, or having a flange formed thereon to hook into it, as at L.

The hoop, as stated, may be of any suitable material, as wood, metal, leather, rope, or twine, &c. In form it may be flat, as at O, or curved, as at O', or round, as at P. For straight-sided or square or hexagonal receptacles the angle form Q or T form R will be found preferable. The hoop may have projections formed on the inside of it, as at S, or upon the edge of it, as at T, for the purpose of engaging in the recesses of the croze, when, by turning the hoop a portion of a revolution around the receptacle, the projections S or T entering the inclined grooves of the croze, the hoop is thereby screwed farther upon the receptacle, and also secured from slipping or being knocked off by accident, and by turning the hoop back until the projections S or T are in the folds or plaits it may be removed with facility. Projections may also be used within the hoop of the form of the plaits, filling the same for greater security, as at U. These may be secured to the hoop, or formed thereon, or may be in the form of distinct wedges or blocks, as at U'.

The covers or head may be made of any material having the requisite qualities, as wood, metal, paper, felt, or leather or cloth. For wet packages the general form shown at Fig. 8 is to be preferred, the convexity of the central portion on the inside facilitating the emission of any air or gas and permitting such packages to be sealed without the use of heat to expel the same, as is now practiced; also, this form gives great strength against a bursting strain from the inside. Corrugations may be employed to increase the rigidity of thin materials. The edge of the head or cover may be plane and straight, agreeing with the contour of the croze, as shown in Fig. 5, or it may be turned or upset, as shown at W. This latter form, by taking advantage of the elasticity of the material of which the head is made, assists in making an impermeable joint without solder, or calking, or packing of any kind, while, for some purposes, the solid head with the croze in it, as shown at L, will be preferred, and in some cases it will be found advantageous to combine the head and hoop in one, by either forming them of one piece or securing them together, as shown at V.

A handle may be applied to the cover, as at Y, or to the hoop, as at X, or to the receptacle itself, as at Z. These handles may be secured permanently in their places or made to put on when the receptacle is closed and take off by unhooking or unscrewing before the same is opened.

It will be understood that while it is a part of the primary intention of this improvement that the receptacle shall be capable of being opened and closed at will, yet in the case as of paper or metal barrels, where the head is put in permanently, as by sewing, soldering, riveting, or other means, the use of the herein-described plait with a head or cover to match, either with or without the croze or the hoop, will produce the proper bilge or tapered form requisite for convenience of handling or rolling, which is a desideratum.

It will be observed that the plaits are generally tapered in the form of gores; but this is not essential; and, if preferred, the plaits may run from end to end, either straight or spirally, which forms, in great variety, would obtain in fancy paper boxes or cases where great elasticity is desired.

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

1. In a receptacle, the body having the combined plait and croze, and with the cover of corresponding contour, as and for the purposes shown and set forth.

2. In a receptacle, the combination of the flexible open body, of plaited or corrugated form, and an inserted cover with the movable hoop, for the purpose of closing and securing the same, substantially as herein shown and described.

3. As an article of manufacture, a receptacle whose body and cover are made to fit each other by means of plaits or corrugations in the one enabling it to open and close upon corresponding indentations in the other, the whole secured by means of a hoop, substantially as and for the purposes herein shown and set forth.

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Witnesses:

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JOHN J. TAGGARD.