

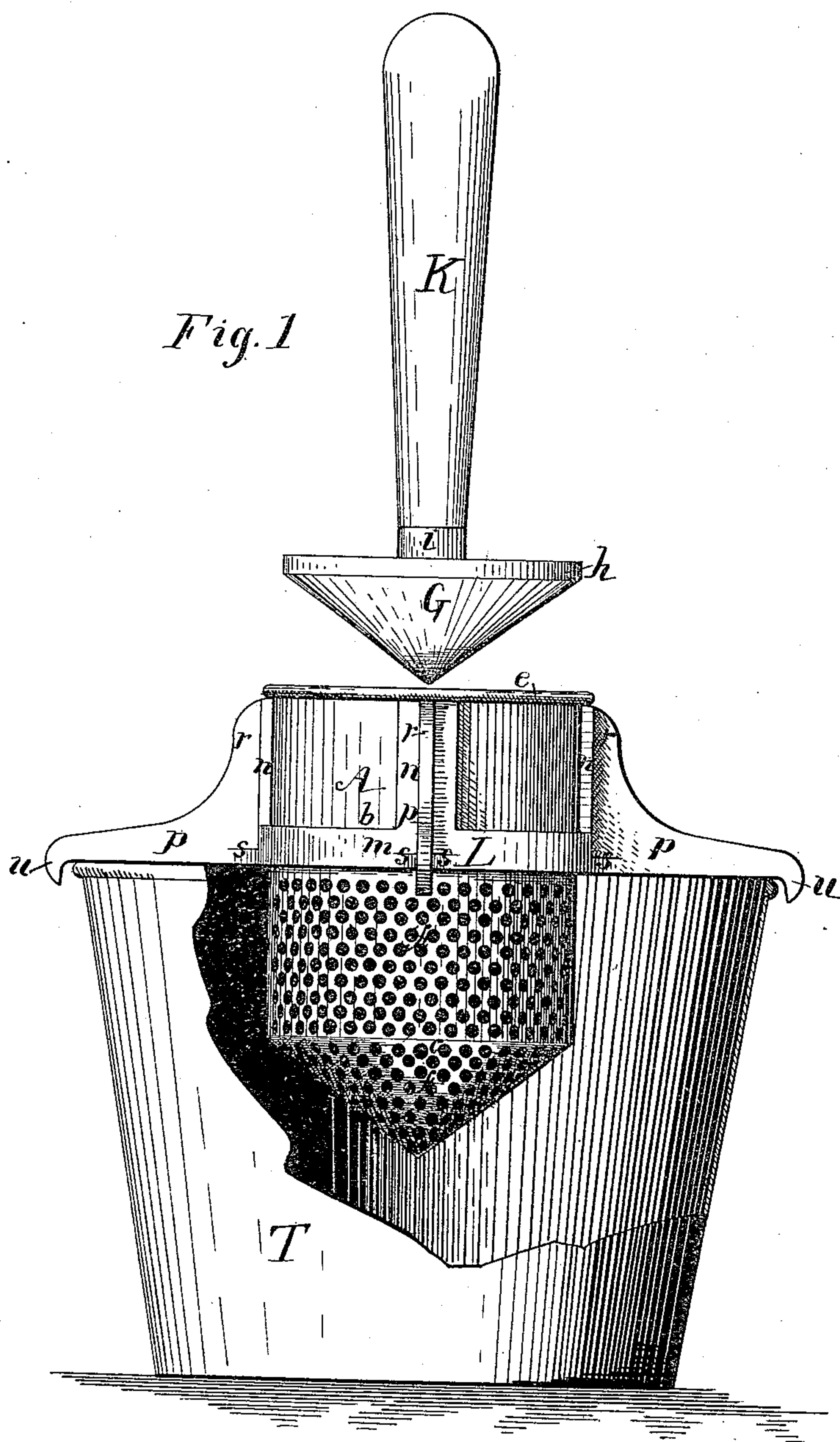
(No Model.)

2 Sheets—Sheet 1.

J. S. BLINN.  
POTATO MASHER.

No. 442,850.

Patented Dec. 16, 1890.



Witnesses

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(No Model.)

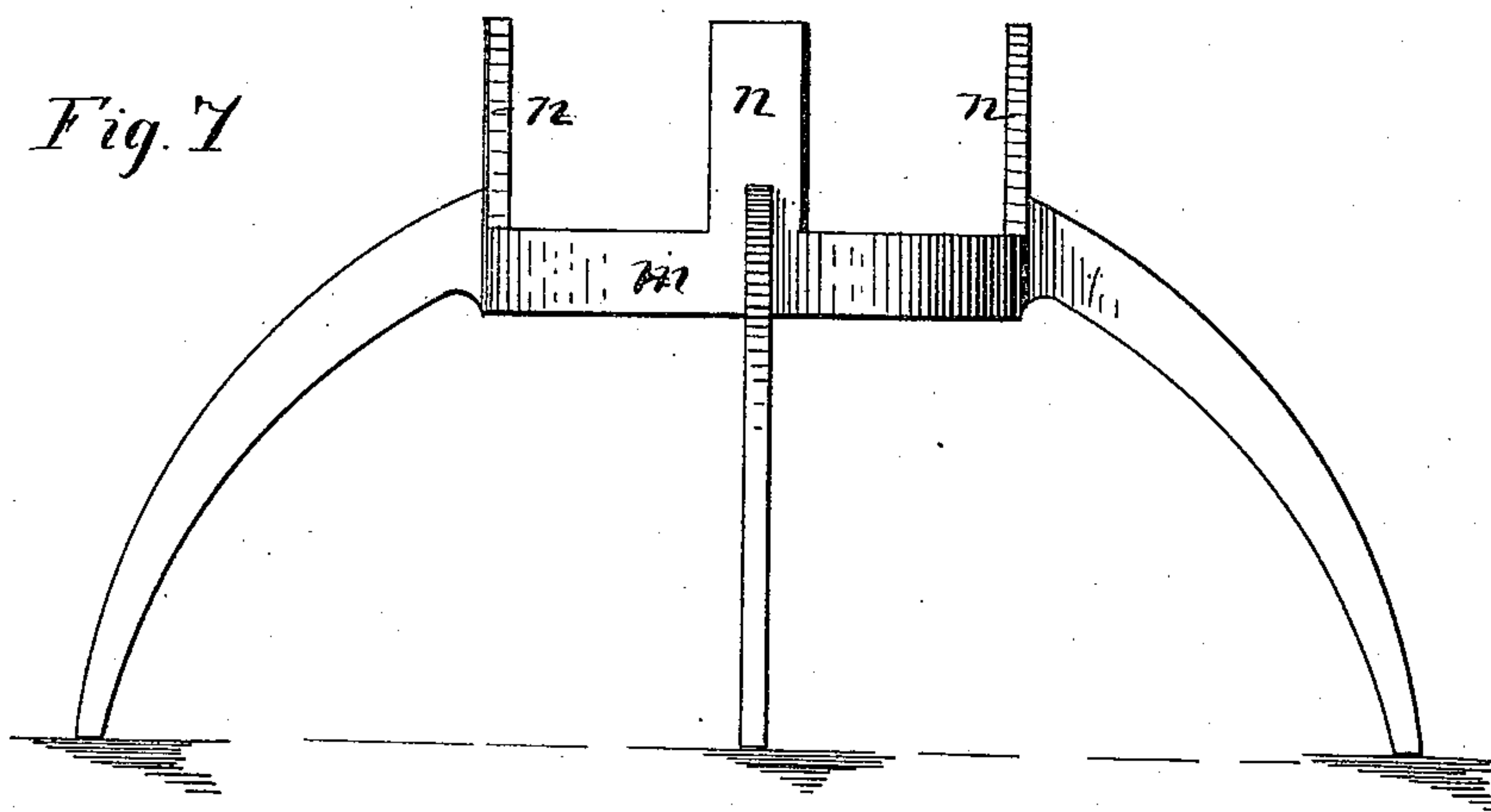
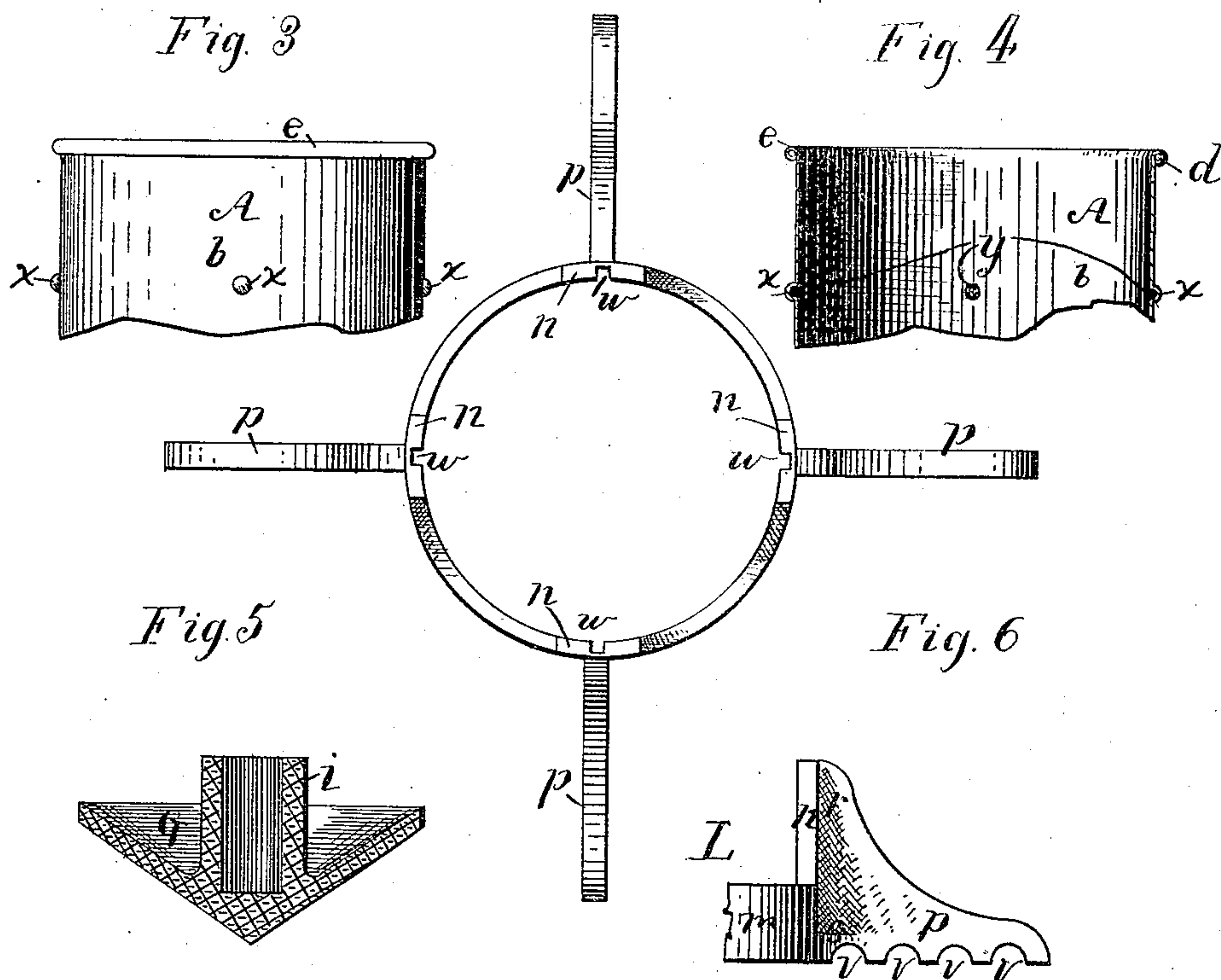
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Fig. 2



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# UNITED STATES PATENT OFFICE.

JOSEPH S. BLINN, OF NEW HAVEN, CONNECTICUT.

## POTATO-MASHER.

SPECIFICATION forming part of Letters Patent No. 442,850, dated December 16, 1890.

Application filed April 7, 1890. Serial No. 346,840. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH S. BLINN, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Potato-Mashers, of which the following is a specification.

My invention relates to a potato-masher or implement for crushing soft-food substances to a pasty consistency in culinary operation, the object being to provide a masher of simple construction, which may be mounted over an ordinary pail, dish, or other receptacle and adapted to thoroughly mash the food substance with minimum labor and without the use of levers or mechanical powers.

The invention consists in the novel arrangement and combination of a conico-cylindrical colander and holding-frame or spider and the conical forcing-plunger, as hereinafter more fully described and claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a view in elevation of my improved masher, shown mounted upon a receptacle as in operation. Fig. 2 is a plan view of the holding-frame or spider. Fig. 3 is a side elevation, and Fig. 4 a vertical central cross-section, of the upper part of the colander. Fig. 5 is a central vertical section through the forcing-plunger, and Figs. 6 and 7 show modifications of the holding-frame.

Referring to the drawings, A designates the colander, the body *b* of which is cylindrical in shape and preferably of a depth exceeding its diameter and fitted with an inverted conical bottom *c*, thus forming a conico-cylindrical-shaped receptacle. The colander may be made of any suitable sheet metal, with the bottom "struck" or "stamped out" in one piece with the body, or it may be made separate and soldered to the body, as preferred. An outwardly-projecting flange or rim *e* is formed around the upper edge of the colander, which may be provided by turning over or folding the edge around a piece of wire in the usual manner of strengthening tinware, or simply leaving the folded-over edge projecting in a simple thin flange, which is also a well-known construction for the rims of sheet-

metal dishes. The lower part of the body of the colander and also the bottom thereof are punctured with a series of small perforations *f*, thus forming a suitable sieve through which the substances to be mashed may be forced, as hereinafter described.

A conical forcing-plunger *G* is fitted to slide freely in the body of the colander, the angle of the conical sides corresponding to that of the sides of the conical bottom *c*. A narrow cylindrical bearing-surface *h* is also formed at the base of the cone to provide ample bearing of the plunger on the sides of the colander, and a central hollow boss *i* is formed within the cone, projecting axially upward away from the apex thereof, thus providing a socket for the reception of a suitable handle *K*, by means of which the forcing-plunger may be pushed into and withdrawn from the colander in its normal operation of mashing the food substances.

*L* represents a holding-frame or spider, by means of which the colander is supported over a suitable receptacle and conveniently held while in use. The said frame, or "spider," as it is termed, consists of an annular rim or socket *m*, adapted to receive the colander, a series of vertical posts or parts *n*, extended upward from the said annular ring in the cylindrical plane thereof, and a series of arms *p*, radiating horizontally from the ring, the said arms being preferably arranged in the radial planes of the said vertical posts and extending up the outer faces thereof to provide suitable ribs *r* for bracing the posts, all the said parts being cast integral in one piece, and the arms are strengthened at their junction with the annular ring by small braces or "cones" *S* in the angles formed by the arms and ring, as shown.

The spider or holding-frame is adapted to be laid over and supported across the mouth of a pail or other receptacle, as *T*, the arms *p* resting on the rim or bail thereof. To retain the spider in place the ends of the arms are provided with suitable depending points or lugs *u*, that prevent the arms from sliding off the edge of the pail, or, if desired, a series of notches *v* may be formed in the lower edges of the arms, as shown in Fig. 6, which will



receive the edge of the pail, the spider being thus adapted to fit upon dishes of different diameters. Fig. 7 shows a modification of spider, in which the arms are projected downward below the plane of the annular ring to form legs or feet for supporting the device over small dishes or upon the bottom of a large pan or tray.

In order to prevent the colander from turning in the spider, a vertical groove  $w$  is formed in one or more of the posts  $n$  on the inner side thereof, and corresponding ribs or projections  $x$  are raised in the sides of the colander, as shown in Figs. 3 and 4, fitting said splines, and thus hold the colander stationary in the spider. The ribs are "pouched up" or "raised" on the outer side of the colander and form corresponding depressions  $y$  on the inside thereof. One is sufficient to hold the parts if fitted in a groove, or the said groove may be dispensed with, and the ribs may engage the edges of the posts  $n$  instead on opposite sides thereof.

In operation the spider or holding-frame is placed over a dish, as shown in Fig. 1, and the colander is received in the socket of the spider with its rim resting upon and supported by the posts  $n$ . Then if a cooked potato or other soft substance is placed in the colander and the forcing-plunger is pressed down upon it the said substance will be mashed and strained through the perforations in the colander and fall into the receiving-dish in a soft and pulpy mass. By supporting the colander firmly on a base, full pressure with both hands may be brought to bear upon the handle of the forcing-plunger, which will descend easily and without the necessity of a lever or other contrivance for multiplying power, and a peculiar advantage is derived from the use of the conical-shaped plunger, which presses the soft substance aside more easily and with the expenditure of less force than if flat. The effectiveness of this form of plunger and colander in requiring less pressure to force soft substances through the colander-perforations than would obtain with a different configuration of the parts is due to the tapering shape of the plunger and the large area or outline presented by the cylindrical straining-surface of the colander. The conical plunger presses and wedges outward in every direction, and the perforated surface presented for the escape of the substance operated upon is relatively very great and much more than if the plunger were simply V-shaped or with only two opposite tapering sides and fitted in a colander having a correspondingly-limited area of perforated surface. Thus by the conical shape of the plunger a wedging action on the substance to be mashed is obtained and the maximum area of straining-surface in the colander is secured, all the parts also being of strong, durable, and inexpensive design, extremely simple and convenient of operation,

and susceptible of being readily cleaned after use.

I therefore claim—

1. The combination of a cylindrical colander provided with an outwardly-projecting flange around its brim and a conical or protuberant bottom and having its bottom and the lower portion of its sides perforated to form a strainer, a plunger adapted to fit and slide within the cylinder and fit the bottom thereof and provided with a vertical thrusting-rod or operating-handle, and a cylindrical supporting-socket adapted to receive and support the colander and provided with radially-projecting arms or supports for mounting the colander over a receiving-dish, substantially in the manner and for the purpose described.

2. The combination of a cylindrical colander provided with an outwardly-projecting flange around its brim and a conical-pointed bottom and having the said bottom and the lower portion of the cylinder perforated to form a strainer, a plunger adapted to fit and slide within the cylinder and having a conical bottom fitting the bottom of the colander and provided with a central vertical thrusting-handle, and a cylindrical ring or socket adapted to receive the colander and support the brim thereof, and having the radially-projecting arms adapted to rest upon the brim of a receiving-dish and mount the colander thereupon, and provided with depending projections for engaging the edges of the said dish and holding the colander in place thereon, substantially as and for the purpose specified.

3. In a device for mashing soft-food substances, the combination of a cylindrical colander provided with a supporting rim or flange around its brim and having a projection or projections on its side, a forcing-plunger or masher fitting the colander and provided with an operating-handle, a holding-frame having a socket for the reception of the colander, and suitable bearings for supporting the supporting-rim thereof and engaging the projections thereon to hold the colander stationary in its frame and provided with arms or supports for mounting the colander over a receiving-dish, as specified.

4. In combination, a conico-cylindrical colander having a supporting rim, flange, or projecting part and provided with a rib or series of ribs raised on its side, a holding-frame having a socket for the reception of the colander and suitable bearings for supporting the supporting-rim thereof and engaging the said ribs, whereby the colander is held from turning in the frame, and supporting arms or legs radiating or projecting from the socket to support the same over a receptacle, as and for the purpose specified.

5. In combination, the conico-cylindrical colander having the flange or rim  $e$  and a rib or ribs or projections  $x$  on its side, the conical plunger or masher  $G$ , having a handle  $K$ , and the holding-frame  $L$ , having a socket for



receiving the colander, bearings for support-  
ing the rim thereof, and bearing-surfaces,  
grooves, or splines for receiving or engaging  
the ribs on the colander and provided with  
5 the arms *p*, for supporting the frame and col-  
ander over a receptacle, the arms having de-  
pending points at their extremities or notches  
or detents on their lower sides to retain the

device in place upon a receiving-dish, sub-  
stantially in the manner and for the purpose so  
specified.

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