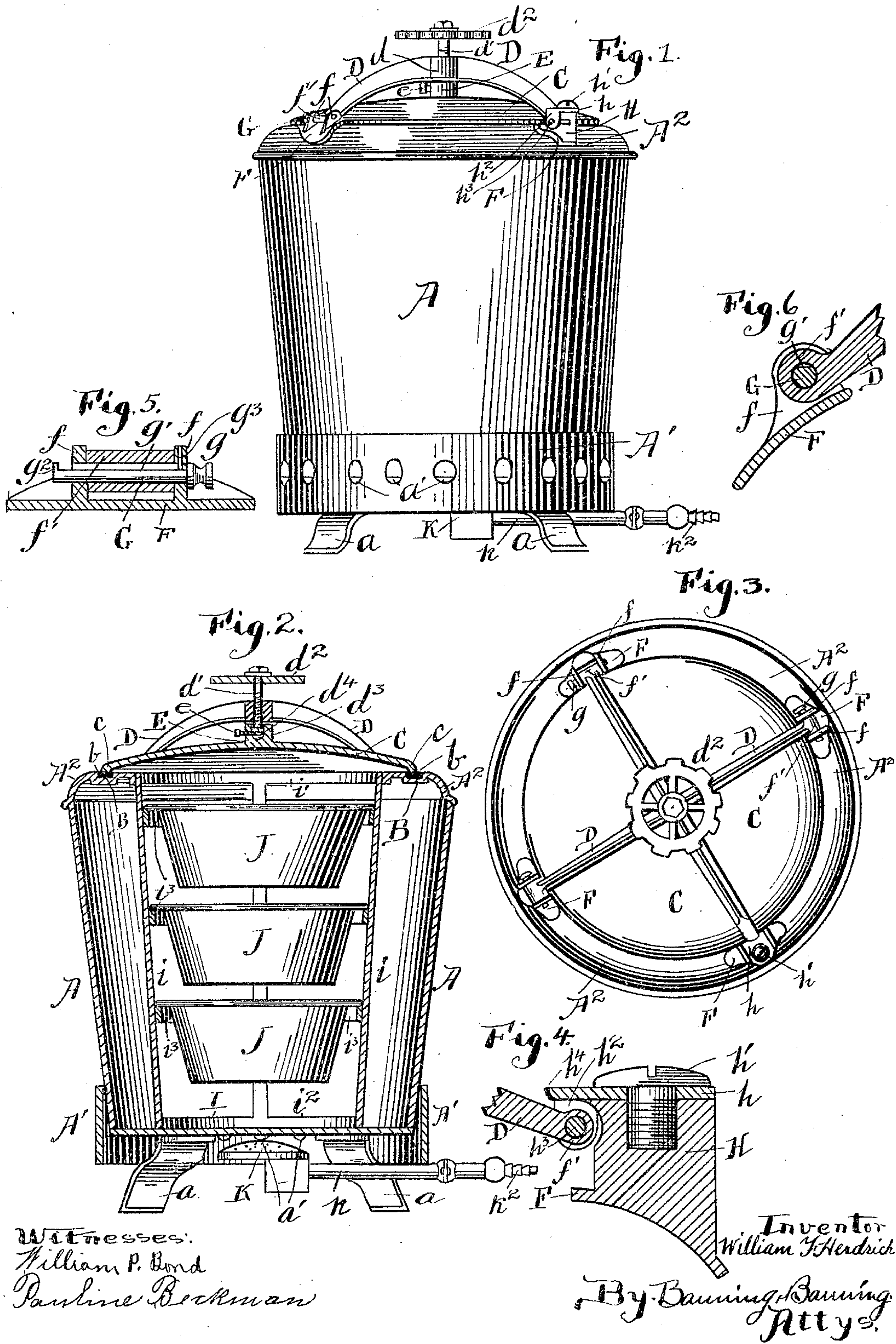


No. 799,600.

PATENTED SEPT. 12, 1905.

W. F. HERDRICH.
STEAM COOKER.

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STEAM-COOKER.

No. 799,600.

Specification of Letters Patent.

Patented Sept. 12, 1905.

Original application filed June 28, 1902, Serial No. 113,591. Divided and this application filed September 3, 1904. Serial No. 223,233.

To all whom it may concern:

Be it known that I, WILLIAM F. HERDRICH, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Steam-Cookers, of which the following is a specification, being a division of application Serial No. 113,591, filed June 28, 1902.

10 This invention relates to the class of steam-cookers in which steam generates in the cooking vessel furnishing the medium for doing the work, and has for its object to improve the construction of the outer vessel, and more especially the means for attaching the cover thereto, so as to furnish a steam-tight joint.

The invention further relates to the construction of the support for the cooking-dishes within the outer vessel.

20 The invention consists in the features of construction and combination of parts hereinafter described and claimed.

In the drawings, Figure 1 is a side elevation of the cooking vessel; Fig. 2, a longitudinal sectional view thereof; Fig. 3, a top view showing the cover; Fig. 4, a sectional detail of the hinge for the cover, and Figs. 5 and 6 details in section showing the pins for attaching the cover to the outer vessel.

30 The outer vessel A is preferably made of stamped steel or other suitable metal or material and can be of the form shown or other suitable form and of any desired capacity. The outer vessel, as shown, is supported on legs *a* at a sufficient height to locate beneath the bottom a suitable burner, and its lower end is inserted into and encircled by a band A', having therein air-holes *a'* for supplying air to the burner. The vessel is provided with a top rim or band A², which is preferably made of cast-iron or similar material, and said band is inwardly curved over the top edge of the vessel and attached thereto around its rim in any suitable manner. The upper surface of the curved rim is provided with a recess B, in which is inserted a packing-ring *b*, of rubber or other suitable material. The vessel is closed by means of a circular cover C, convex on its outer surface and provided with the downwardly-extending edge or lip *c*, adapted to compress the packing-ring when the parts are assembled. The cover is carried and forced down by a spider consisting of four arms D, which unite at their center in a hub *d*, through

which passes a screw-threaded stem *d'*, provided on its end with a hand-wheel *d''*, and the inner end of the screw-threaded stem is provided with a rounded head *d'''*, provided with a channel *d''''*, which head is inserted into a socket E on top of the cover and held therein by means of a set-screw *e*, which enters the groove or channel and allows the screw-threaded stem to be rotated, but prevents its withdrawal from the socket within which it is inserted. The top rim *b* is provided at suitable points with a series of four plates F, one for each arm of the spider. Three of these plates have upwardly-extending ears *f*, spaced apart to admit of the insertion between the ears of a sleeve *f'* on the end of the spider-arm. Through the ears and the sleeves are inserted locking pins or bolts G, provided at one end with an enlarged head *g* and having on one side a flat face *g'*, and the pins or bolts terminate in an end *g''* of the full circular diameter of the pins. One of the ears, as shown, has entered thereinto a pin *g'''*, which projects sufficiently to contact the flat face of the locking bolt or pin and furnishes the stop for contact with the end *g''* and preventing the entire withdrawal of the pin, thereby guarding against loss or removal of the pins, but allowing the pin to be withdrawn sufficiently to release the sleeve of the spider-arm and allow the same to be lifted upwardly between the ears. The fourth plate F has located thereon a stud H, provided on its top with a plate *h*, which is pivoted to a stud by means of a bolt *h'*, and the plate is provided with depending ears *h''*, between which is inserted the sleeve *f'* of the remaining spider-arm and pivoted therein by means of a pin *h'''*, and the plate at its inner edge is beveled at the point *h''''* to allow the spider-arm to be raised, which method of attaching the spider-arm provides a double joint and allows the spider to be raised and swung to one side when the pins or bolts are withdrawn, so as to release the three arms of the spider.

Within the vessel is a support I for holding a series of cooking vessels or receptacles, and said support consists of a series of vertical bars *i*, terminating in an upper ring *i'* and a lower ring *i''*, the upper ring abutting against the inner edge of the rim of the vessel, which forms a support for the ring.

Intermediate the upper and lower rings are a series of supporting-rings *i'''*, which form

supports or ledges for the support of a series of receptacles J, which are supported one above the other in the manner shown.

Beneath the vessel is a burner K, to which
5 leads a fuel-supply pipe k , provided at its end with a nipple k^2 for the attachment of a hose or other source of fuel-supply.

In using the cooker the pans or receptacles are first inserted into the vessel and a sufficient supply of water admitted thereinto,
10 after which the cover is swung into place on its pivot-hinge. The three free arms of the spider are then inserted into the ears and locked therein by the insertion of the pins,
15 which, as previously explained, cannot be entirely withdrawn, and after the insertion of the spider the hand or power wheel is turned, forcing down the screw-threaded stem, which compresses the cover onto the packing-ring,
20 which makes a steam-tight joint for the vessel preparatory to the generation of steam. The method of attaching the cover is one which enables the cover to be compressed to any desired extent and at the same time be instantly unlocked and swung out of the way
25 when so desired. The entire removal of the cover can be quickly effected for the purpose of cleaning or otherwise by the removal of the pin or stud h' , which forms the only pivot
30 between the receptacle and the cover.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination of a vessel provided with an inwardly-extending rim, a packing-
35 ring on the rim, a spider having a hub and a plurality of radially-extending arms thereon and having one of its arms pivoted to the rim, means for locking the remaining arms to the rim, an adjusting-screw passing through the
40 hub of the spider and provided with an end rotatably mounted within the top of the cover for forcing down the cover onto the packing-ring, and means for holding the end of the adjusting-screw within the cover and allowing
45 of its rotation for permitting the cover to be moved with the spider, substantially as described.

2. In a steam-cooker, the combination of a vessel provided with an inwardly-extending
50 rim, a cover adapted to be forced down onto the rim, a spider provided with arms radiat-

ing from a hub, an adjusting-screw passing through the hub, a socket on the top of the cover into which the end of the adjusting-screw is entered, means for holding the end
55 within the socket and allowing of its rotation adapting the cover to be swung with the spider, a double pivotal joint for one of the arms of the spider, ears on the rim, and pins passing through the ears and the ends of the re-
60 maining spider-arms for locking the spider to the rim and permitting the cover to be forced down onto the rim, substantially as described.

3. The combination of a vessel provided on
65 its top with an inwardly-extending rim, three pairs of ears upwardly extending from the rim, a stud upwardly extending from the rim, a plate pivotally mounted on the stud, ears depending from the plate, a spider provided
70 with a hub and four arms radiating therefrom, one of the arms being pivoted to the depending ears on the plate and the remaining arms adapted to be entered between the ears on the rim and locked therein, and an adjusting-screw
75 passing through the hub and adapted to downwardly force the cover onto the rim, substantially as described.

4. The combination of a vessel provided on
80 its top with an inwardly-extending rim, three pairs of ears upwardly extending from the rim, a stud upwardly extending from the rim, a plate pivotally mounted on the stud, ears depending from the plate, a spider provided
85 with a hub and four arms radiating therefrom, one of the arms being pivoted to the depending ears on the plate and the remaining arms adapted to be entered between the ears on the rim and locked therein, and an adjusting-screw passing through the hub and provided at
90 its inner end with a grooved head, a socket on the cover within which the head is rotatably mounted, and a set-screw passing into the socket and entered into the groove in the head for suspending the cover from the spi-
95 der and allowing it to be downwardly forced onto the rim by the adjustment of the screw, substantially as described.

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Witnesses:

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