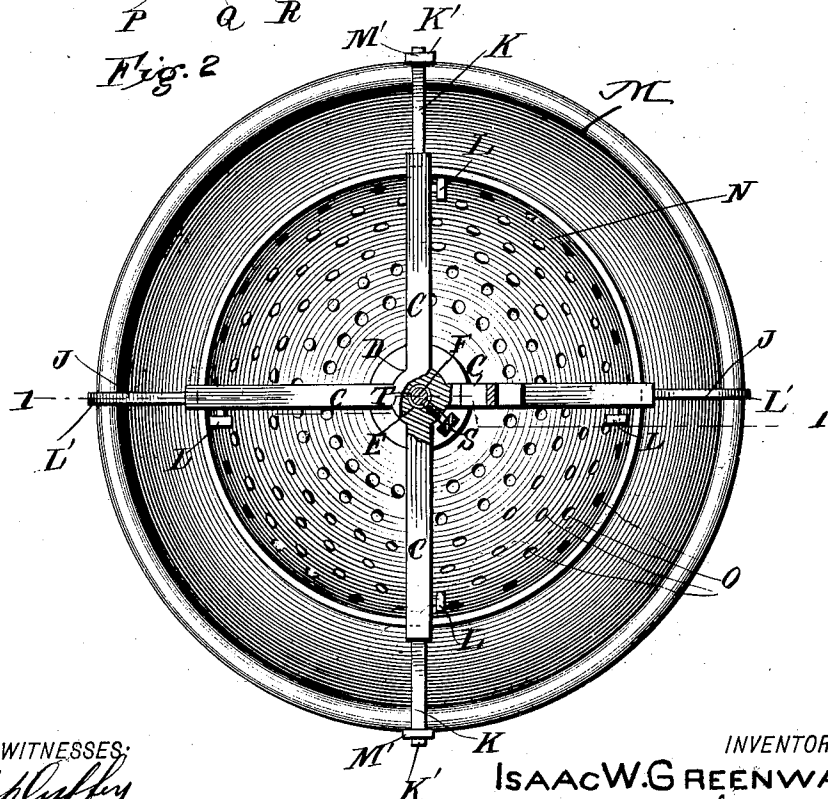
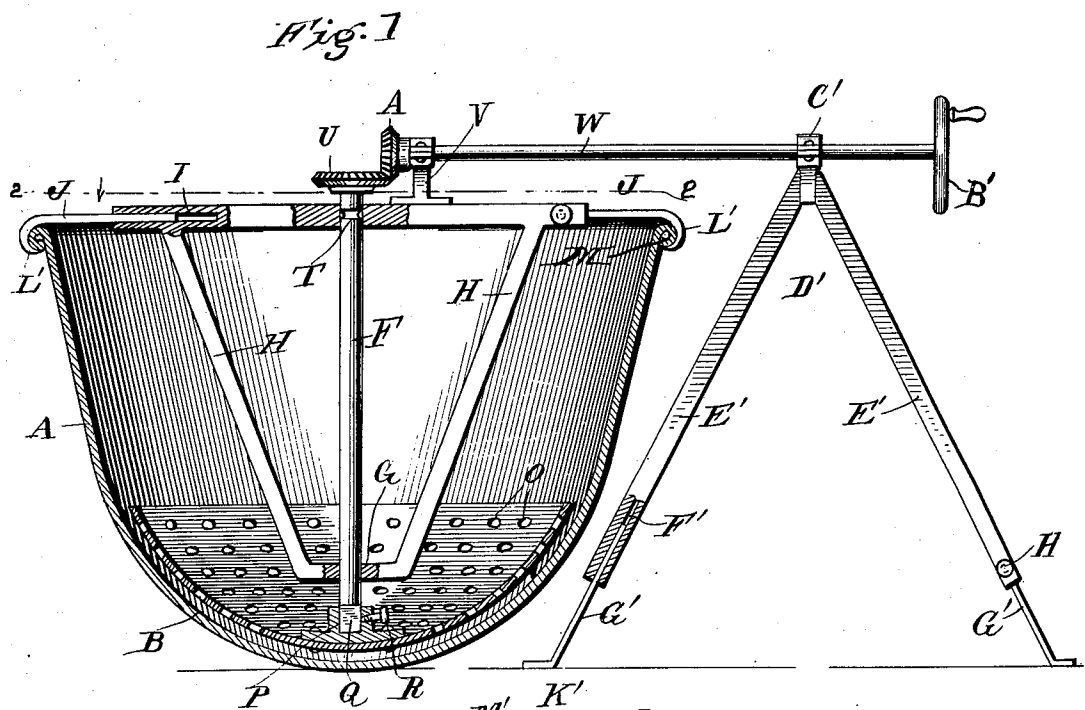


No. 841,010.

PATENTED JAN. 8, 1907.

I. W. GREENWALD.
STIRRER.

APPLICATION FILED JAN. 25, 1906.



WITNESSES:
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ISAAC WILSON GREENWALD, OF FREDERICK, MARYLAND, ASSIGNOR OF
ONE-HALF TO GEORGE L. HILDEBRAND, OF DICKERSON, MARYLAND.

STIRRER.

No. 841,010.

Specification of Letters Patent.

Patented Jan. 8, 1907.

Application filed January 25, 1906. Serial No. 297,783.

To all whom it may concern:

Be it known that I, ISAAC WILSON GREENWALD, a citizen of the United States, and a resident of Frederick, in the county of Frederick and State of Maryland, have invented a new and Improved Stirrer, of which the following is a specification.

The invention relates to fluid stirring or agitating attachments for cooking-kettles, and has for its object means of this character which may be simple in construction and applicable to all open kettles commonly employed for cooking apple-butter or general purposes where the fluid or material should be stirred or agitated during the cooking process.

The invention consists of the special construction, arrangement, and combination of parts shown by the accompanying drawings, and hereinafter fully described, the novel features being pointed out in the claims.

In the drawings, Figure 1 is a vertical sectional view taken on line 1 1 of Fig. 2. In the view stirrer-operating means are shown with the same part in section. Fig. 2 is a sectional plan view, the section being taken on line 2 2 of Fig. 1.

My improved stirrer is designed for use with any suitable kettle A, having an inner concave bottom B.

In the practice of my invention I employ four arms C, extending from a common center portion D, and the latter is constructed with a vertical opening E, adapted to receive a suitable vertically-disposed shaft F.

G denotes a bearing for the lower end of the shaft F and by which through support of braces H, depending from the arms C, and the opening E in the center portion D, the shaft F is suitably held. The outer ends of the arms C are provided with sockets I, in two of which I arrange adjustable arms J, similar arms K being arranged in the sockets of the other arms C.

The adjustable arms J K are secured by clamping-screws L, and the outer ends of the arms J are fashioned into downwardly-disposed hooks L', adapted for holding engagement with the common wired or enlarged edge M of the kettle A, and the outer ends K' of the adjustable arms K are designed for arrangement in suitable ears M', fixedly secured to the kettle.

In the kettle I arrange a stirrer device con-

sisting of a concave or dished plate N, having a series of perforations O. The stirrer device N is provided with an angular socket P, in which the correspondingly-shaped lower end Q of the shaft F is arranged.

In Fig. 1 of my drawings the stirrer device N is shown elevated slightly above the bottom of the kettle and illustrated secured by a set-screw R; but obviously the stirrer device may be placed on the kettle-bottom and the shaft F extended into the stirrer-socket P, thus dispensing with the fastening-screw R. In the construction illustrated the stirrer device is held elevated by engagement of a set-screw S with a suitable groove T around the upper end of the shaft F. I will here add that obviously when the stirrer device is located on the bottom of the kettle the set-screw S and the groove T around the shaft may be dispensed with.

Upon reference to Fig. 1 it will be noticed that the shaft F is extended above the supporting-arms C and that its extended end is provided with a bevel-pinion U. Upon one of the arms C, I arrange a bearing V, providing support for the inner end of a rotatable transverse shaft W. This end of the shaft W is provided with a bevel-pinion A', arranged in driving engagement with the pinion U. It is designed that the shaft W shall be sufficiently long for the stirrer-operator to be in position removed from the radiated heat of the kettle and its heating means and be provided with an operating-crank B' substantially as shown. The crank or outer end of the shaft W is arranged in a suitable bearing C' on an adjustable support D'. The support is preferably constructed with bracingly-arranged inclined legs E', having sockets F' in their lower ends, extensions G' being arranged in the leg-sockets F', as will be understood upon reference to Fig. 1, and the leg extensions secured as adjusted by means of clamping-screws H' on the legs E'.

The construction of my improved stirrer will be understood from the above description and its use readily understood. The means provided for attachment of the stirrer render it quickly applied and secured to the kettle and also afford adjustment to kettles of small or larger size, and that the outer end of the operating-shaft W may have proper support the legs E' are made adapted to be lengthened, as shown and described.

I would particularly refer to the form of my stirrer device N. Its concave construction adapts it for effective and improved stirring or agitating action over practically the whole bottom of the kettle, and being located closely to or on the bottom of the kettle, as desired, the liquid and solid matter contained therein may be worked or stirred as occasion requires, thus obviating scorching of the material being cooked. The series of perforations in the stirrer device materially increase its effectiveness through upward currents induced therethrough by rotary action of the device and also to upward passage through the perforations of steam-bubbles formed under the bottom of the stirrer device.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A stirrer device adapted for arrangement in a vessel having a concave inner bot-

tom, the stirrer device being constructed with a vertical shaft, a circular concave plate on the lower end of said vertical shaft, the plate being constructed with perforations throughout its whole surface, and means adapted for supporting and rotating the vertical shaft.

2. The combination with a kettle having a concave inner bottom, of a stirrer comprising a vertical shaft, braces and adjustable arms providing support for the shaft, means on the arms adapted for holding engagement with the kettle, a concave plate operatively connected with the lower end of said shaft, the plate being constructed with perforations throughout its whole surface, and means therethrough to impart rotary motion to the shaft.

ISAAC WILSON GREENWALD.

Witnesses:

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