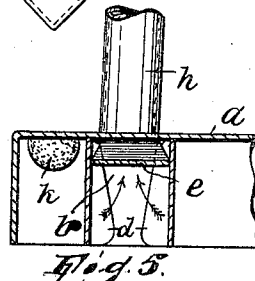
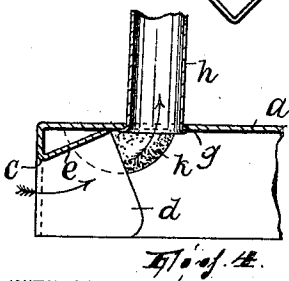
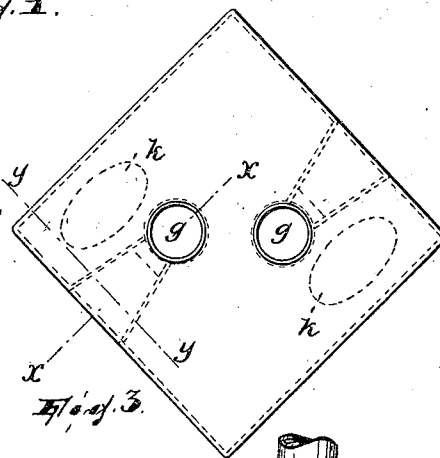
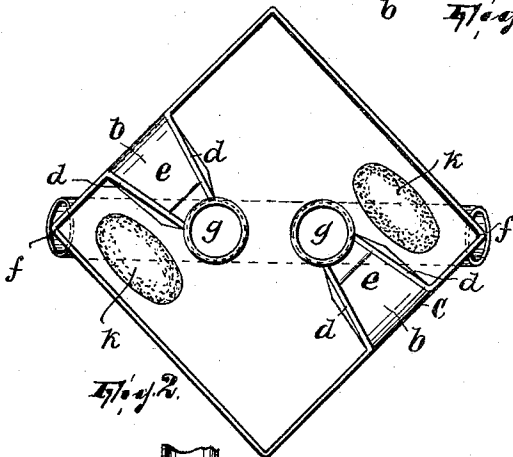
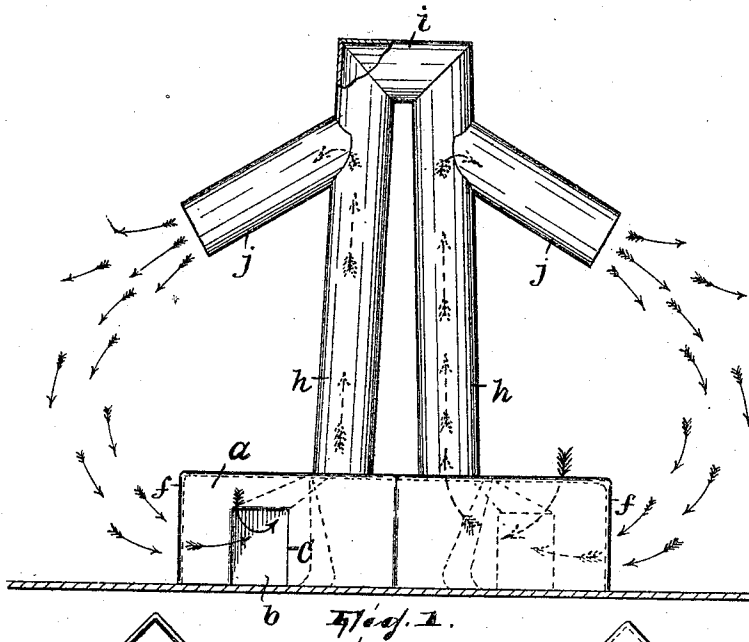


A. J. BRADY.
WASHBOILER ATTACHMENT.
APPLICATION FILED JULY 10, 1909.

944,411.

Patented Dec. 28, 1909.



WITNESSES

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WASHBOILER ATTACHMENT.

944,411.

Specification of Letters Patent. Patented Dec. 28, 1909.

Application filed July 10, 1909. Serial No. 506,924.

To all whom it may concern:

Be it known that I, ANDREW J. BRADY, a citizen of the United States, residing in Passaic, Passaic county, and State of New Jersey, have invented a certain new and useful Improvement in Washboiler Attachments; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to that class of accessories for wash boilers and the like which are constructed so as to induce a circulation of the heated water in the boiler and produce an agitation of the fabrics therein with a view to expedite and render more complete the cleansing action, and, in the case of delicate white fabrics in particular, keep them as much as possible from turning yellow or becoming permanently discolored. As the efficiency of devices of this nature is known to depend principally on the violence of the agitation produced by them, which in turn depends on the rapidity with which the currents move, my principal object is so to construct the article forming the subject of this invention as to heighten the agitating action and preserve it as uniform as possible, while causing it to influence directly substantially the whole length of the boiler. To this end I provide a hollow base having an intake or intakes and two tubular structures each comprising an uptake, surmounting the base and communicating at its lower end with the interior of the base, and a discharge nozzle on the uptake, each tubular structure being imperforate from the base to the discharge end of its nozzle and said nozzles projecting in substantially opposite directions, and an imperforate tubular connection between the uptakes.

The accompanying drawing shows my invention in Figure 1, in side elevation, a part being broken away; in Fig. 2, in underneath plan view; in Fig. 3 in top plan view, with the uptakes and their nozzles removed; and in Figs. 4 and 5 on lines $x-x$ and $y-y$ of Fig. 3, in section.

a in said drawing designates a substantially square hollow base open on the under side and preferably formed of sheet metal. Two opposed sides of this base are formed,

nearer two of the diagonal corners than the other two, with intakes b produced by openings c formed in said sides and converging wings d which extend inwardly, one at each side of an opening c . The convergence is preferably of a double character, that is, the wings appear to converge both in plan and when viewing either side of the base having an opening c (see Figs. 2 and 3, which show the convergence in the plan of the base, and Fig. 5, which shows the convergence in the side elevation of one of the intakes). The first convergence is inward, while the second is downward. The portions e of those sides of the base which are cut away to form the openings c are bent inwardly, and upwardly at an incline, forming the top walls of the intakes.

In the top wall of the base and substantially centrally thereof, in the diagonal of the base which cuts the corners f thereof near which the intakes are formed, are the openings g . In these openings are soldered or otherwise suitably secured the tubular uptakes h , preferably converging upwardly, and connected at their upper ends by the tubular connection i . The uptakes h are provided with the nozzles j , projecting in opposite directions, one from each uptake, the vertical plane of the nozzles being the same as that of the uptakes; the nozzles project slightly downwardly. The tubes of which the parts h , i and j are formed are of uniform and equal diameter.

To the inner side of the top wall of the base a are affixed in any suitable manner the weights k , the same being disposed substantially adjacent to the corners f of the base.

It will be observed that the inner ends of the intakes are respectively adjacent to the lower ends of the uptakes.

The action of the device when in use is substantially as follows: It is placed in the boiler with the nozzles j projecting lengthwise of the same. The heated water at the bottom of the boiler and within the base a rises through uptakes h and finds its escape by the nozzles j . The nozzles discharge in opposite directions and slightly downwardly, the currents or spurts thus produced being extended more or less to the ends of the boiler, where they finally turn downwardly and back, entering the base a at the intakes b . It will be observed that the intakes are off-set with relation to the

vertical plane in which the nozzles stand, so that the said currents are not confined to a single vertical plane, as would be the effect if the intakes were directly below the nozzle, but are made to affect more or less of the width of the boiler. As the water enters, say, one of the intakes *b*, the upward divergence of the wings *d* (see Fig. 5), in view of the fact that the openings *b* are disposed in a plane below the horizontal plane of the lower ends of the uptakes, causes the admitted water to be directed principally into the uptake immediately adjoining said intake; thereupon the water as it rises through the uptake referred to is discharged through the nozzle of said uptake, the water not entering said uptake from its particular intake passing beyond said uptake and entering the other one, and the water not being discharged at the nozzle referred to passing through the connection *i* and out of the other nozzle. The relative arrangement and construction of the parts is therefore such that there is a steady but strong flow of water in opposite directions from the nozzles, keeping the water in the boiler constantly in motion so that once particles of dirt or foreign matter have been dislodged they are constantly kept in motion and so prevented from discoloring the fabrics.

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

35 1. A device of the character described comprising, in combination, a hollow base

having an intake, two tubular structures each comprising an uptake, surmounting the base and communicating at its lower end with the interior of said base, and a discharge nozzle on the uptake, each tubular structure being imperforate from the base to the discharge end of its nozzle and said nozzles projecting in substantially opposite directions, and an imperforate tubular connection between the uptakes, substantially as described. 40 45

2. A device of the character described comprising, in combination, a hollow base having two intakes disposed relatively opposite to each other and each having its sides converging inwardly and downwardly, two tubular structures each comprising an uptake, surmounting the base and communicating at its lower end with the interior of said base, and a discharge nozzle on the uptake, each tubular structure being imperforate from the base to the discharge end of its nozzle and said nozzles projecting in substantially opposite directions, and an imperforate tubular connection between the uptakes, each tubular structure adjoining at its lower end the inner end of an intake, substantially as described. 50 55 60

In testimony that I claim the foregoing I have hereunto set my hand this 7th day of July, 1909. 65

ANDREW J. BRADY.

Witnesses:

C. S. METZER,
MARGARET L. KINDT.