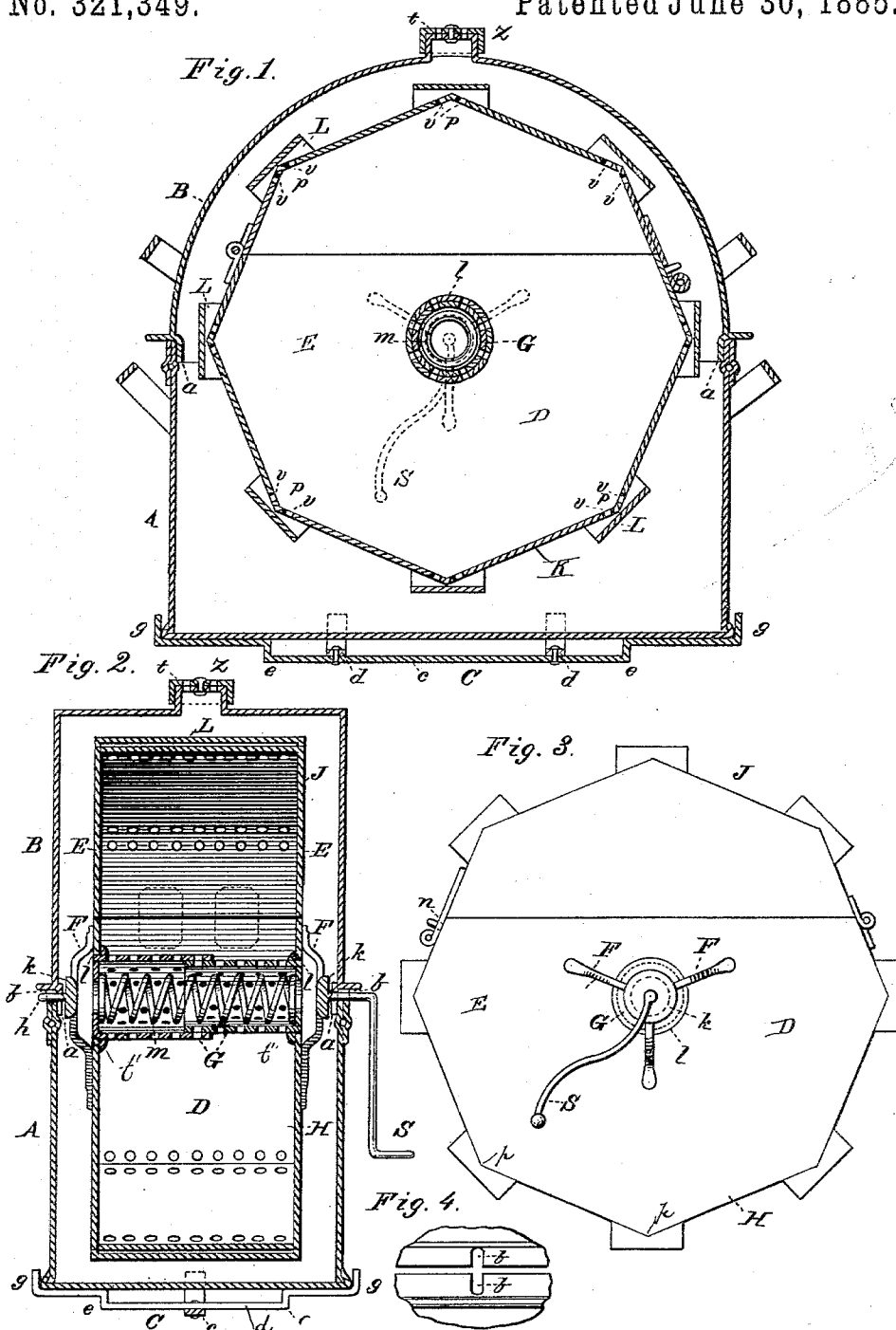


(No Model.)

G. A. EPPEL.
WASHING MACHINE.

No. 321,349.

Patented June 30, 1885.



WITNESSES
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UNITED STATES PATENT OFFICE.

GUSTAV A. EPEL, OF OKAWVILLE, ILLINOIS.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 321,349, dated June 30, 1885.

Application filed April 5, 1884. (No model.)

To all whom it may concern:

Be it known that I, G. A. EPEL, a citizen of the United States, residing at Okawville, in the county of Washington and State of Illinois, have invented certain new and useful Improvements in Washing-Machines; and I do 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 or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of this invention and is a vertical section. Fig. 2 is a cross section. Fig. 3 is a side view of the prismatic holder. Fig. 4 is a detail showing notch-bearings.

This invention has relation to washing-machines; and it consists in the construction and novel arrangement of devices, as hereinafter set forth, and pointed out in the appended claims.

In the accompanying drawings, the letter A designates the boiler, which is provided with a cover, B, fitting by its flange *a* neatly thereon. Notch-bearings *b* are made in the sides of the boiler and cover to receive the journals of the rotary holder.

C represents a base-frame of strap iron consisting of the long strip *c*, and the transverse strips *d*, which are bent at *e* to enter the opening in the stove-top, and have the up-turned end catches, *g*, adapted to engage the margin of the bottom of the boiler to hold it in position on the stove and prevent it from slipping when the rotary holder is being turned.

D indicates the holder, which is of prismatic form, having parallel sides E, to which the journal-castings F are secured. Each journal *h* is provided with a large inner guard-flange, *k*, which, when the journals are seated in the bearings, are inside the boiler, next the side walls thereof. These flanges are designed to keep the holder in position and to prevent the undue escape of steam at the bearings.

Large openings in the central portions of the side walls of the holder D are made at *l*, and serve to receive the ends of the removable per-

forated center tube, G. This tube is made in two sections, one sliding within the other, and kept in relative position thereto by an interior spring, *m*. This tube is open at the ends, and is readily adjusted in position in the center of the rotary holder, or removed therefrom, as may be required, according to the character and quantity of the articles placed therein to be washed. Each section of the tube G is provided at its outer end with an external flange, *t*, which engages the inner side walls of the holder, as shown in Fig. 2. To the main section H of the holder is hinged, by one end, the cover-section J, the other end thereof being secured during the rotation by a fastening, *n*, at the other end.

The circumferential wall K of the rotary holder is usually prismatic or angular, having the corners *p*. Transverse series of perforations *v* are made above and below each angle or corner of the circumferential wall, and exterior guide flanges or buckets, L, are attached to the angular portions in such a manner as to extend beyond the series of perforations, as shown, so that when the holder is rotated by the handle S in the boiler the water and steam will be guided into the interior of the holder, to operate upon the clothes therein. At the same time the steam is guided into the center of the mass through the perforated center tube, G.

The top of the boiler is provided with an escape-opening, as at *z*, for the steam, said opening having a perforated or cut-off valve, *t*, whereby the escape of steam may be prevented when necessary.

When bulky articles are to be washed, filling up the holder, the central tube, if in the way, can be readily removed. It is desirable, also, to remove it when cleaning out the holder. It should, however, be used in all cases whenever possible, as it serves an important purpose in the operation of cleansing the central portions of the mass.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

1. In a boiler washing-machine, the prismatic perforated rotary holder having exterior guide-buckets and a central removable

perforated sectional tube, whereby steam and water are introduced at the circumference and in the center, substantially as specified.

2. In a boiler washing-machine, the combination, with a rotary holder having openings in its sides, of a sectional perforated center tube having external annular flanges and a spring, whereby it is kept in position, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

GUSTAV A. EPPHEL.

Witnesses:

THEO. SCHULZE,
C. L. SCHULZE.