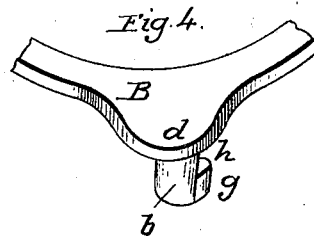
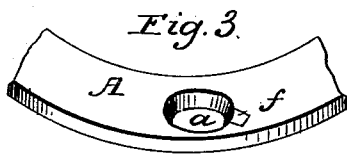
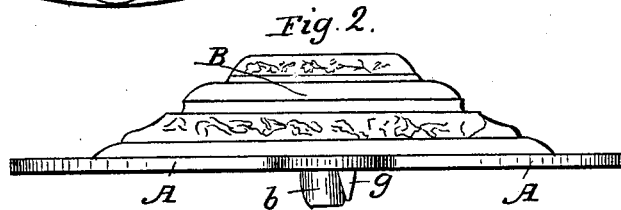
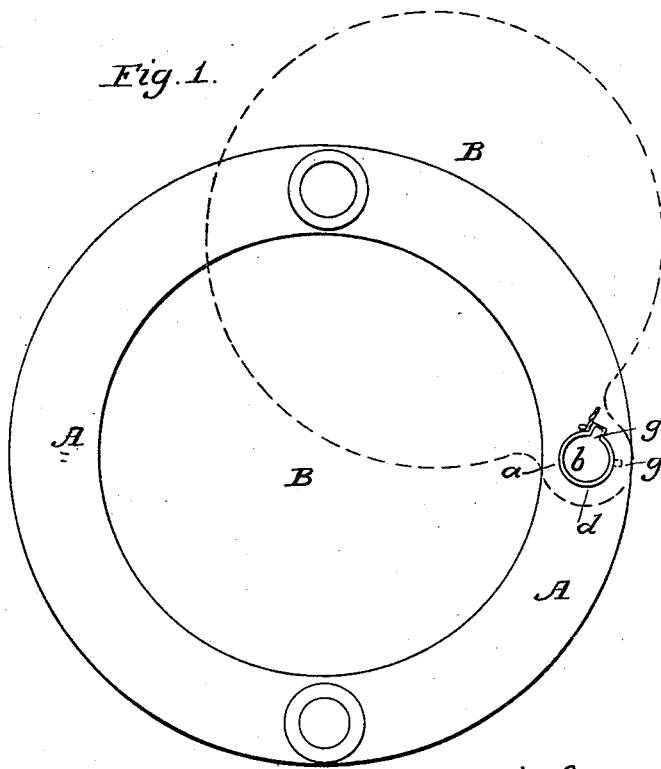


D. G. LITTLEFIELD.

Attaching Covers to Stoves, Tea Kettles, &c.

No. 53,251.

Patented March 13, 1866.



UNITED STATES PATENT OFFICE.

DENNIS G. LITTLEFIELD, OF ALBANY, NEW YORK.

IMPROVEMENT IN ATTACHING AND HINGING COVERS TO STOVES, TEA-KETTLES, &c.

Specification forming part of Letters Patent No. 53,251, dated March 13, 1866.

To all whom it may concern:

Be it known that I, DENNIS G. LITTLEFIELD, of Albany, in the county of Albany and State of New York, have invented a new and useful Improvement in the Mode of Attaching and Hinging Covers to Stoves and other vessels when said covers are designed to swing open in a horizontal plane; and I do hereby declare that the following is a full, clear, and exact description of my invention, reference being had to the accompanying drawings making part of this specification, of which—

Figure 1 is a plan view of the under side of an annular cast-iron plate designed as a portion of the top-piece of a stove with a cover attached thereto by means of my improved hinge; Fig. 2, a side elevation of the same, and Figs. 3 and 4 views, in perspective, of detached portions of the top and cover respectively, embracing the pivot and pivot-hole forming my improved hinge.

In covering tea-kettles, stoves, and other vessels opening upwardly, it has long been found useful and advantageous so to combine the cover proper with the vessel as that the former may be swung aside in a horizontal plane without falling off. Heretofore, however, this result has been accomplished by means of rivets, bolts, or other similar secure joints, so formed as that, although the cover had free play horizontally, it could not be lifted off or detached from the vessel without great trouble and inconvenience.

Some years ago I designed and applied to the ornamental covers of open stove-ovens an improvement in these swing-joints by which the objection of a permanent fastening was in a measure obviated. This improvement consisted simply in placing an elongated or oval-shaped boss or projection upon the under side of the cover, near its edge, which fitted into a similarly-shaped aperture in the rim of the upper plate of the stove. A recess or notch cut upon one end of the oval projection, deep and wide enough to embrace the thickness of the stove-plate, permitted the cover to swing around and be supported in all those positions in which there was not a coincidence of the larger axes of the projection and aperture. This mode of pivoting was defective, however, in that it made an extremely loose joint, which, by its complete articulation in opposite posi-

tions, allowed a detachment of the cover at two distinct points.

The object of my present invention has been to improve upon the plan then invented and to obtain a pivoted or swing joint for the cover of open-top stoves, tea-kettles, and other vessels having vertical openings or recesses, which shall work closely and evenly and be so formed as that the cover may be not only readily swung aside in order to fill the vessel without the necessity of lifting it off, or the possibility of its falling away by its own weight when so swung aside, but can also, when closed, and then only, be readily removed without trouble or inconvenience.

The nature of my improvement consists, chiefly, in the substitution of a circular aperture in the rim or top plate of the vessel and a round pivot-pin or projection upon the under side of its cover in the place of the elongated or oval aperture and projection heretofore designed.

The circular aperture *a*, pierced or formed in the annular plate or rim *A*, has a rectangular or evenly formed indentation or notch, *f*, cut at a given point in its circumference, (see Fig. 3,) to receive and allow the passage of a key or vane, *g*, formed upon the cylindrical pin or boss *b*, Fig. 4, cast or fitted to the under side of the cover *B*. This pivot-pin *b* is made to fit closely and accurately in the aperture *a*, and long enough to project a short distance through the plate or rim *A* when inserted therein. The vane or key *g* formed or fitted upon said pin extends from its extremity longitudinally along the same, and terminates at a point just so far from the under side of the cover *B* as to leave an interval between the two equal to the thickness of the rim or plate *A*, through which the pin passes, as illustrated in Fig. 2.

The notch *f* in the aperture *a* is cut or formed at such a point in its circumference as that the vane upon the pin *b* can only coincide and articulate therewith when the cover *B* rests fairly and exactly over or upon the top plate or rim, *A*.

When the cover *B* is properly placed upon the vessel so that its edges rest evenly and firmly upon the rim *A* it is evident that, as the vane or key *g* upon the pivot-pin *b* does not extend upward to catch within the notch in the pivot-hole, the cover may be freely turned upon said pivot, and that when the cover is

turned entirely off from the vessel, so as not to rest thereon the upper end of said vane *g*, catching and locking against the under side of the rim or top plate, *A*, will support and uphold the cover firmly and securely. The close and accurate manner in which the pivot-pin is embraced within the aperture prevents at the same time all loose play or movement thereof. Thus it is evident that while the cover *B* thus pivoted has an easy, horizontal movement, permitting free access to the interior of the stove, kettle, or other vessel to fill up the same, yet that there can be no possibility of its accidental detachment, although when resting fairly upon the vessel it may be as readily and promptly lifted off as if there were no hinge. Hence no inconvenience can arise from the use of this my improved keyed pivot-hinge; and it presents the advantage of creating but little or no expense in its construction, its parts being cast with the plates proper.

I do not claim, broadly, the combination of a swing-cover with a vessel in such a manner as that it may be readily detached therefrom; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

The use of a cylindrical keyed pivot-pin in combination with a circular-notched aperture for the purpose of hinging and securing swinging covers upon stoves, tea-kettles, or similar open-topped vessels, substantially in the manner herein set forth.

The foregoing specification of my improvement in the mode of attaching and hinging covers to stoves and other vessels signed by me this 11th day of December, 1863.

DENNIS G. LITTLEFIELD.

In presence of—

E. M. BARTHOLOW.

RANDOLPH COYLE, Jr.