Z. B. CUSTER.

SAD-IRONS.

No. 182,806. Patented Oct. 3, 1876.

Fig. 1.

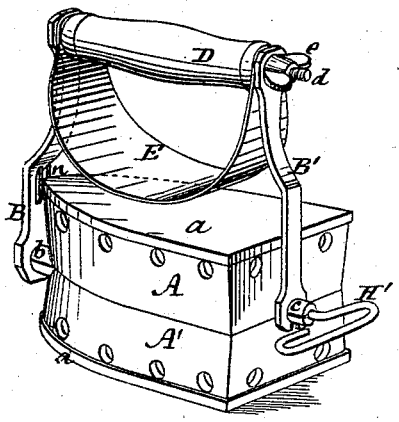


Fig. 2.

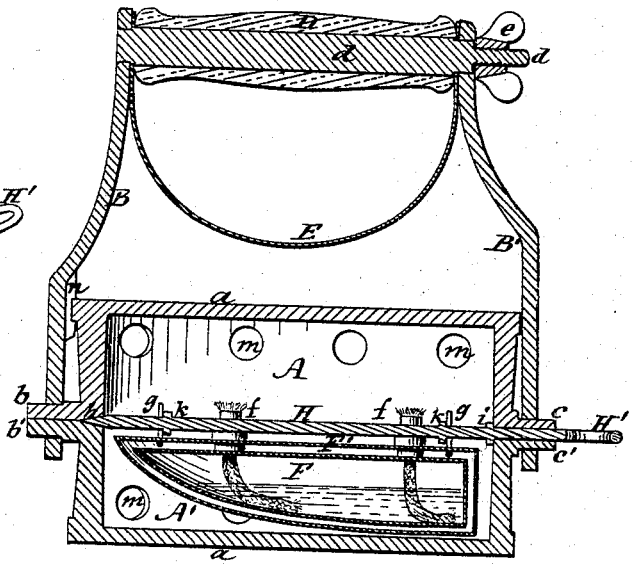
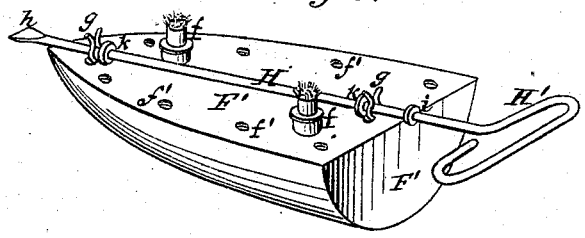


Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

ZORA B. CUSTER, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN SAD-IRONS.

Specification forming part of Letters Patent No. **182,806**, dated October 3, 1876; application filed August 28, 1876.

To all whom it may concern:

Be it known that I, ZORA B. CUSTER, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Sad-Irons; and that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a perspective view of the sad-iron. Fig. 2 represents a longitudinal vertical section of the same. Fig. 3 represents a perspective view of the lamp detached and removed from the interior of the sad-iron.

Similar letters of reference, where they occur, denote like parts in all the figures.

My invention relates to hollow sad-irons that can be heated from the interior while being used upon linen or other material; and my invention consists in forming a sad-iron in halves, each having a half-trunnion at each end, by which they are connected together, and around which it is revolved in suitable bearings by means of a central rod, provided with a handle, projecting in the rear of the said sad-iron. It consists, also, in a lamp of a peculiar form and construction, suspended within the hollow sad-iron from a central rod, so that its center of gravity is much below the center of rotation of the sad-iron, allowing the latter to be revolved, while the lamp remains immobile.

To enable others skilled in the art to make and use my invention I will proceed to describe the same with reference to the drawings.

The sad-iron is cast in halves, A and A′, that are made preferably identical in form, and of the ordinary configuration, viz., pointed at one end and square at the other. The face *a* projects slightly over the body of the sad-iron. Each half is made hollow, and is provided at the fore end with the half of a trunnion, *b b′*, and at the rear end with the half of another trunnion, *c c′*. These divided half-trunnions are united in pairs by the braces B B′, that connect the handle D with the sad-iron, the braces having circular openings adjacent to their lower extremity, to embrace the trunnions and form bearings for them, in which they can be revolved. The braces B B′ are connected at their upper end by a bolt, *d*, passing through the wooden handle D. This bolt is riveted to the brace B, and, passing through the brace B′, is retained in connection with it by the thumb-nut *e* engaging with the screw-thread of the bolt *d*. To this bolt is also suspended a shield, E, to divert the heat escaping from the sad-iron from the hand of the operator. The lamp F, having two or more burners, *f*, is suspended by loops *g* from the central round rod H. This lamp is in the form of a half-cone, having its bottom rounded, with a flat top corresponding in form with the interior of the sad-iron, so that it can turn freely within it. The lamp is surmounted by a casing, F′, having perforations *f′*, to allow air to enter and circulate between it and the lamp, and keep the latter comparatively cool. The lamp and its casing are united around the burners, or at any other point. The central rod H is flattened at the point *h*, so as to engage in a corresponding recess cut in the sad-iron, close to the trunnion *b b′*, where it is retained by the collar *i*, and its rear end is formed into a handle, H′, by which it, and with it the sad-iron, can be revolved. The lamp is retained in proper relation with the rod H by collars *k*, formed upon said rod, against which the loops *g* of the lamp are resting.

In using this sad-iron, the halves A and A′ are separated by removing the thumb-nut *e* from the end of the bolt in the handle D, and taking off the braces B B′ from the trunnions *b b′* and *c c′*, the lower end of the brace B′ being split so as to be easily released from the rod H. The lamp is then filled with alcohol or other suitable burning-fluid, either away from the sad-iron, as shown in Fig. 3, or in position within the lower half of the sad-iron, with the point *h* of the rod H engaged in its recess, and its rear portion resting in the hollow center of the trunnion *c′*. The lamp is then lighted, and the upper half A of the sad-iron placed above it; or the lamp can be lighted through the openings *m* after the parts are all united. The brace B is then passed over the trunnions *b b′*, so that the point of the sad-iron will engage in a recess, *n*, formed in the rear of the brace B, and the brace B′ is placed in the rear of the sad-iron, with its

lower end embracing the trunnion $c\ c'$, and its upper end passing over the end of the bolt *d*. The thumb-nut *e* is then set to retain the parts in position. When the upper half of the sad-iron has been sufficiently heated, and it is desired to turn it down to the lower side, the thumb-nut *e* is slackened, and the handle D and brace B moved forward until the point of the sad-iron is disengaged from the recess *n*. The sad-iron is then lifted up from the table by the handle D, while it is revolved by the handle H′ at the rear, until the point of the previous lower half is opposite the recess *n*. The lamp, being suspended from the central rod in the interior, remains stationary. The thumb-nut is then tightened against the brace B′, thus rigidly uniting all the parts.

Having thus described my invention, I claim—

1. A hollow sad-iron, formed in halves, having trunnions $b\ b'$ and $c\ c'$ formed at the line of junction, united by braces attached to the handle D, substantially as and for the purpose described.

2. A lamp, F, suspended within a hollow sad-iron from a rod passing through its center, substantially as and for the purpose described.

3. In combination with a hollow sad-iron and a lamp suspended within it, the central rod H, having the end *h* flattened, and a handle, H′, with which to turn the sad-iron, substantially as described.

4. In combination with a sad-iron inclosing a lamp, the recess *n* in the rear of the brace B, to receive the point of the sad-iron, and thumb-nut *e*, to retain the parts rigidly, substantially as described.

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