(No Model.)

C. S. DANA & D. FURNALL.

SELF HEATING SAD IRON.

No. 345,123. Patented July 6, 1886.

Fig. 1.

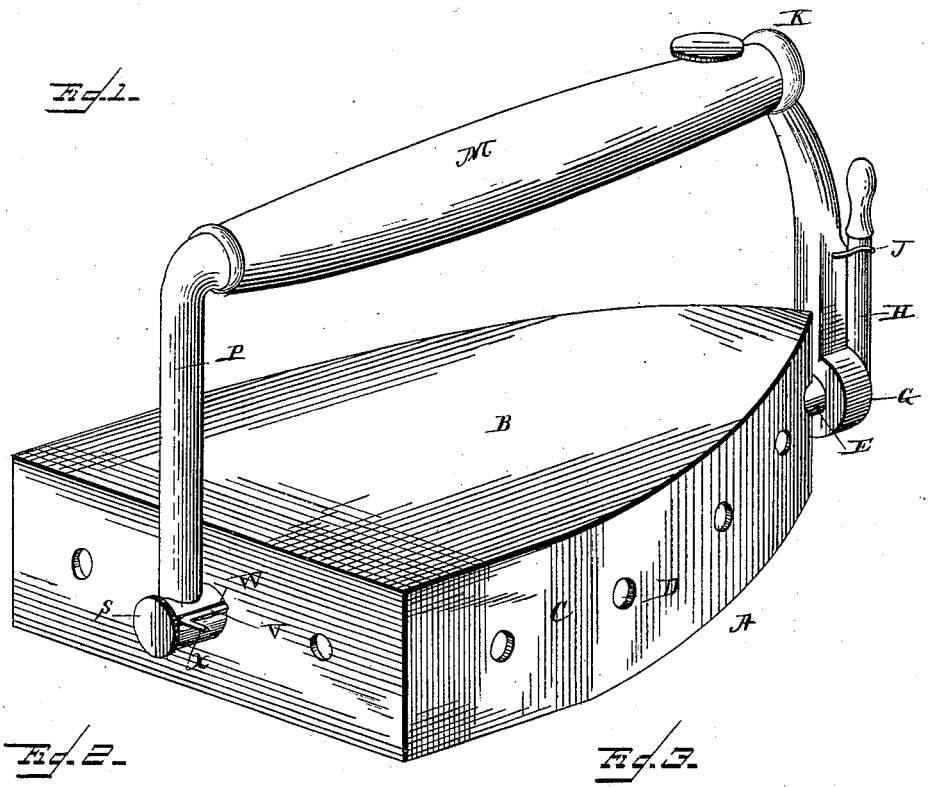
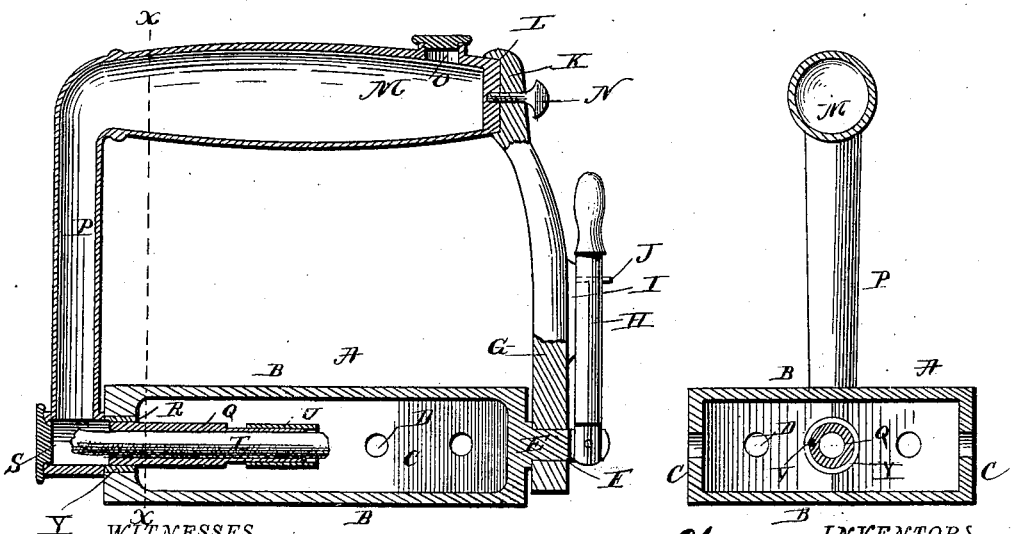


Fig. 2.

Fig. 3.



WITNESSES

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CHARLES S. DANA AND DAVID FURNALL, OF BELPRE, OHIO.

SELF-HEATING SAD-IRON.

SPECIFICATION forming part of Letters Patent No. 345,123, dated July 6, 1886.

Application filed February 17, 1886. Serial No. 192,273. (No model.)

To all whom it may concern:

Be it known that we, CHARLES S. DANA and DAVID FURNALL, both residents of Belpre, in the county of Washington and State of Ohio, have invented certain new and useful Improvements in Self-Heating Sad-Irons; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of our improved self-heating sad-iron. Fig. 2 is a longitudinal vertical sectional view of the same; and Fig. 3 is a transverse sectional view on line *x x*, Fig. 2.

Similar letters of reference indicate corresponding parts in all the figures.

Our invention has relation to so-called "self-heating" sad-irons, or irons in which a flame within the hollow iron heats the same; and it consists in the improved construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the iron, which is of any desired shape and size, and which consists of the faces B B and the perforated sides C, the perforations D in which admit air into the interior of the iron. The forward end of the iron is formed with a trunnion, E, which revolves in a perforation, F, in the lower end of an upright, G, and a handle, H, is pivoted to the outer end of this trunnion, swinging in a plane at right angles to the planes of the faces of the iron. The forward side of the upright is formed with a longitudinal groove, I, within which the handle may rest, and with outwardly-projecting spring-lips J J, between which the handle may be held, the lips projecting at the sides of the groove. The upper end of the upright is formed with a head, K, which is formed with a recess, L, in its rear side, in which recess the forward end of the hollow handle M fits, being held in the said recess by means of a screw, N, or similar means. The hollow handle serves as a reservoir for the fluid fuel which is burned in the iron, and is provided with an aperture, O, upon the upper side of its forward end, through which it may be filled, and which aperture is closed by a suitable removable cap. The rear end of the hollow handle is provided with a downwardly-extending upright, P, which is likewise hollow and communicating with the handle, and the lower end of this upright is formed with a forwardly-projecting hollow trunnion, Q, upon which the hollow iron turns with a bearing, R, in its rear side. The rear end of this trunnion is provided with a removable cap, S, so that a wick may be introduced through the aperture covered by the cap on removal of the same, the said wick being indicated at T, and the forward end of the hollow trunnion is provided with a cap, U, which slides upon the said end and which may cover or uncover more or less of the wick, so as to admit of a larger or smaller flame to be burned within the iron. A wire or small rod, V, is secured to the cap and slides in a longitudinal groove, W, in the side of the trunnion, having its rear end bent to form a handle, X, by means of which it may be manipulated, and the portion of the trunnion which turns in the bearing in the rear side of the iron is preferably provided with a sleeve, Y, fitting upon it and turning in the bearing, so that the groove and the rod will not in any manner interfere with the free turning of the iron upon the trunnion. When the hollow handle is filled with fluid fuel—alcohol, or any other suitable fluid fuel—the said fluid will pass down through the hollow upright and into the hollow trunnion, where it will saturate the wick, and this wick may be ignited by unfastening the hollow handle from the upper end of the forward upright and drawing the hollow trunnion out of the iron. After the wick is ignited and the trunnion again inserted, the handle may be secured to the upright and the flame will heat the upwardly-facing side of the iron, the perforated sides admitting air to the flame. After the upper face has been heated, the handle may be tilted out from its groove and from out between the lips, the iron turned by means of the handle, and the handle again turned up, when it will retain the heated face downward for use, while the other face will now be heated. In this manner the iron may be reversed when one face is cold, the upper face being heated continually, and the flame may be regulated to any desired size, so as to heat the iron to any desired degree.

If desired, the burner may be constructed so

as to burn hydrocarbon, when the sliding rod is attached to a valve of suitable construction, which will regulate the flow of hydrocarbon to the generator and burner. The handle resting in the groove upon the forward upright will hold the reversible iron perfectly firm, preventing it from rocking upon its trunnions, so that the handle of the iron and the iron will be perfectly rigidly connected, and the handle of the trunnion will be held in place by the spring-lips, preventing it from tilting out and thus allowing the iron to rock.

Having thus described our invention, we claim and desire to secure by Letters Patent of the United States—

1. The combination of a reversible hollow sad-iron having an upright pivotally secured at its front end, and a hollow handle pivotally secured at its rear end by means of a hollow trunnion, said handle being detachably secured to said upright, a movable cap or sleeve upon the inner end of said trunnion, a wire secured to said cap and having its rear end formed into a handle, and means for securing said iron in its desired position.

2. The combination of a reversible hollow sad-iron having its sides and rear end perforated, and having a trunnion at its front end, an upright pivotally secured upon said trunnion, a hollow handle pivotally secured to the rear end of said iron by means of a trunnion and to said upright, said trunnion having a groove upon its side, a cap upon the inner end of said trunnion, a wire secured thereto and fitting within said groove, a collar or sleeve around said trunnion within one of the perforations in the rear end of said iron, and means for securing said iron in its desired position.

In testimony that we claim the foregoing as our own we have hereunto affixed our signatures in presence of two witnesses.

CHARLES S. DANA.
DAVID FURNALL.

Witnesses:
DAVID R. ROOD,
PRISCILLA D. ROOD.