E. H. Taylor,

Sad Iron,

No. 66,535. Patented July 9, 1867.

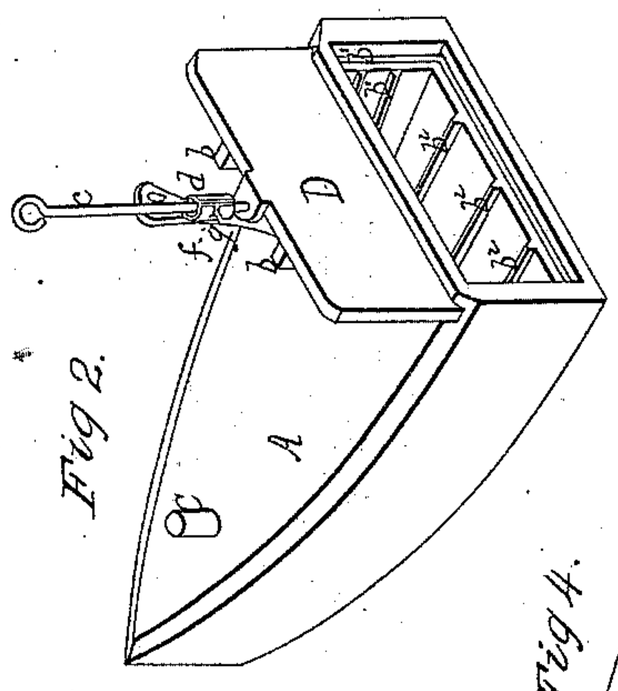

Fig 2.

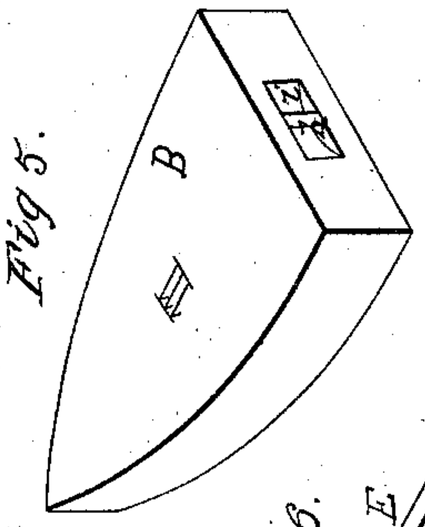

Fig 5.

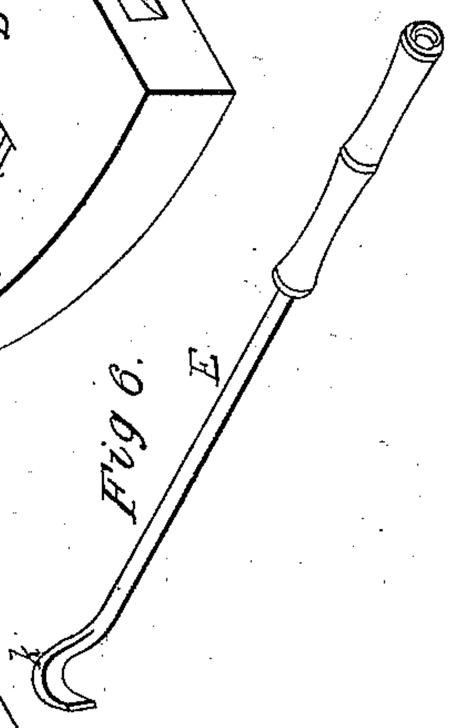

Fig 6.

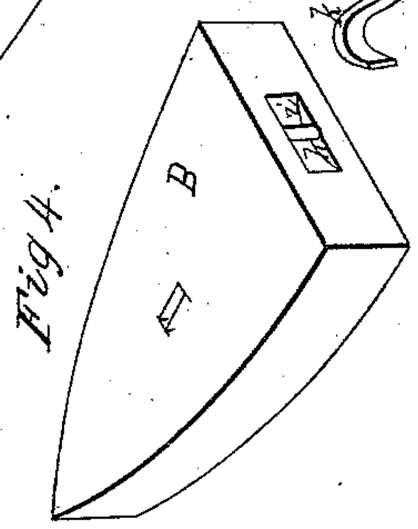

Fig 4.

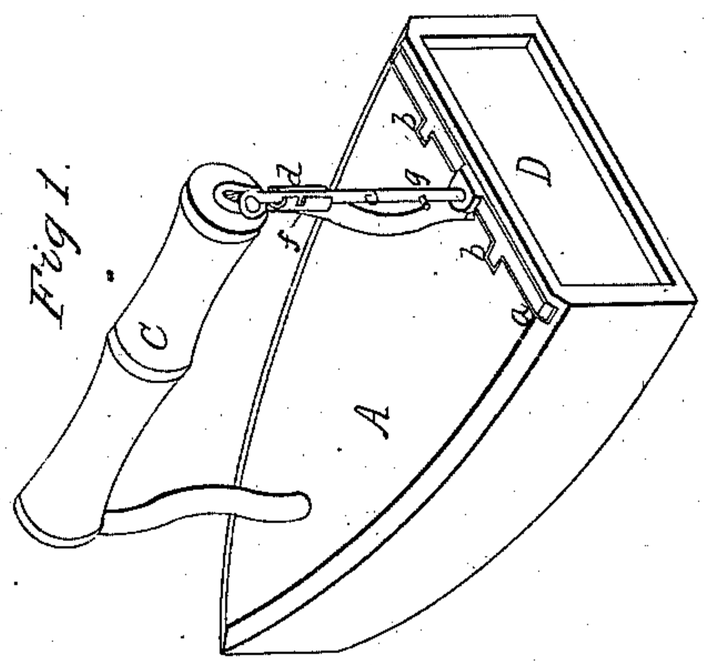

Fig 1.

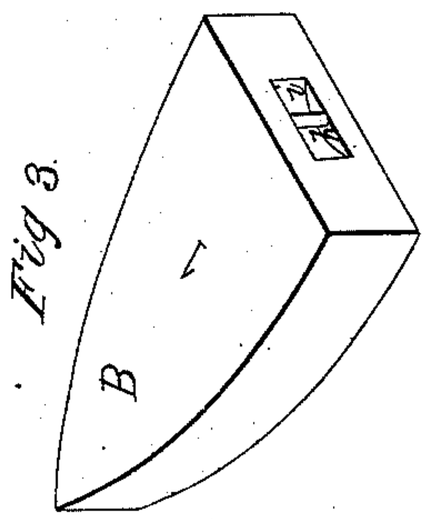

Fig 3.

Witnesses.

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E. H. TAYLOR, OF BATAVIA, NEW YORK.

Letters Patent No. 66,535, *dated July* 9, 1867.

IMPROVED SAD-IRON.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, E. H. TAYLOR, of Batavia, in the county of Genesee, and State of New York, have invented a certain new and useful Improvement in Sad-Irons; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

Figure 1 is a perspective view of my improved sad-iron with the slide closed.

Figure 2, a similar view with the slide opened.

Figures 3, 4, and 5, perspective views of the heaters.

Figure 6, view of the hook for handling the heaters.

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

My improvement belongs to that class known as the "box flat-iron," in which separate heaters are employed and placed in a closed box.

The invention consists in ribbing the inside of the box at the sides and rear, as well as at the bottom, so as to allow an air space all around the heater for equalizing the heat; the ribs of the said side and rear also serving to strengthen the box by breaking the blows of the heater, which the bottom ribs alone would not do. The invention also consists in forming the rear ribs as a part of the slide that rises to admit the heaters, for the purpose of strengthening the slide, as before mentioned, and to form guides to retain the slide in place as it is raised and lowered, and using in combination therewith a peculiar arrangement of the guide-socket and pivot-stem, by which the slide is held elevated at any time.

As represented in the drawings, A is the box, and B B B the heaters that fit therein. The box is provided with a handle, C, as usual, and with a rear slide or gate, D, which rises vertically to allow the passage of the heaters. This slide rests in a groove, *a*, of the box. The bottom of the box, inside, is provided with ordinary longitudinal ribs b^2 b^2 b^2, as clearly shown in fig. 2. In addition to these it has longitudinal side ribs b^1 b^1, and vertical rear ribs *b b*, which latter are on the slide or gate. Thus the whole interior of the box, except the top, is ribbed, so that the heater placed therein can nowhere come in contact with the bare sides, bottom, or rear. This leaves a free air space all around, and therefore equalizes the heat, even when the heater is standing stationary on one side. The free circulation of the air around the sides as well as at the bottom, has a tendency to modify undue expansion and contraction of the box. Were the hot iron to be placed in the cold box and come directly in contact with the thin sides, the sudden expansion might crack them; but the air space left at that point effectually prevents this by removing the contact and producing a more gradual heating. The ribs strengthen the sides and rear of the box against the blows of the heater as it is agitated by the movement. It is obvious that the great shock will come on the sides and rear and not on the bottom. By ribbing these parts in addition to the bottom I can make them thin and light, and still insure the necessary strength. I believe this effect has never been produced prior to my invention. The rear ribs *b b*, in addition to strengthening the slide, as above described, serve as guides to retain the slide in position as it is raised and lowered in the groove *a*. With these the slide must run true and cannot bind. Centrally to the top of the slide D, a stem, *c*, is pivoted so as to turn easily. This stem extends up through a guide-socket, *d*, secured to the handle, and having a vertical slot in such a position as to allow a pin, *g*, of the stem, to be drawn up through. At a suitable position in this socket is made a side slot, *f*, auxiliary to the main slot, and so arranged that when the slide is fully raised the pin of the stem will come opposite, and may be turned into the side slot, in which condition the said slide will be held elevated for the insertion or removal of the heaters. This arrangement is very convenient for operating the slide, since not only is but very little action required, but the stem may be made so slender as to conduct and retain but very little heat.

In order to insure a regular rotation in the use of the heaters, I prefer to mark them "I," "II," "III," &c., as indicated in the drawings. The rear ends of the heaters have half circular cavities or depressions *i i*, with vertical cross-pins *h h*, and into these cavities and around these pins is inserted a hook, E, with an end made of square iron, as shown in fig. 6, for the purpose of holding the heaters extended for easy handling.

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

The combination and arrangement of the rear and side ribs b b^1 with the bottom ribs b^2, for allowing a free air space all around the interior, and strengthening the sides and ends of the box against the blows of the heater, as herein set forth.

I also claim, in combination with the slide D, provided with the rib-guides b b, the arrangement of the pivot-stem c with pin g, and the guide-socket d with slots f, the whole operating in the manner and for the purpose set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

E. H. TAYLOR.

Witnesses:

GEO. D. MORTON,

ANDREW STODDERS.