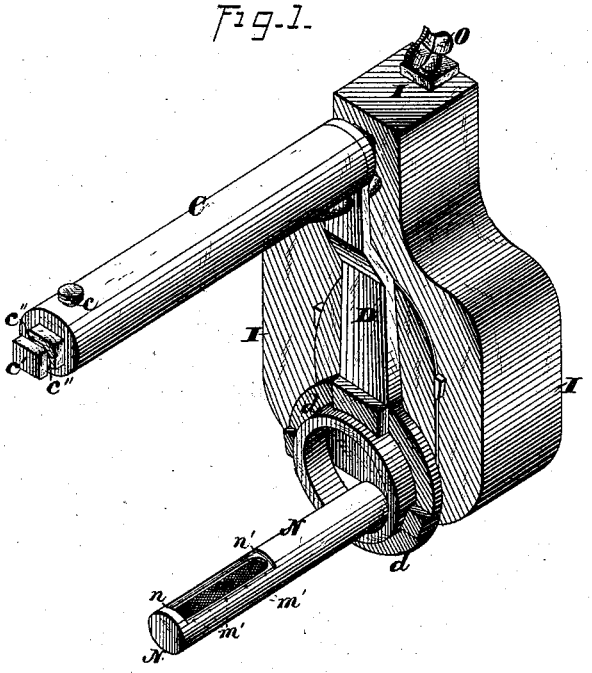
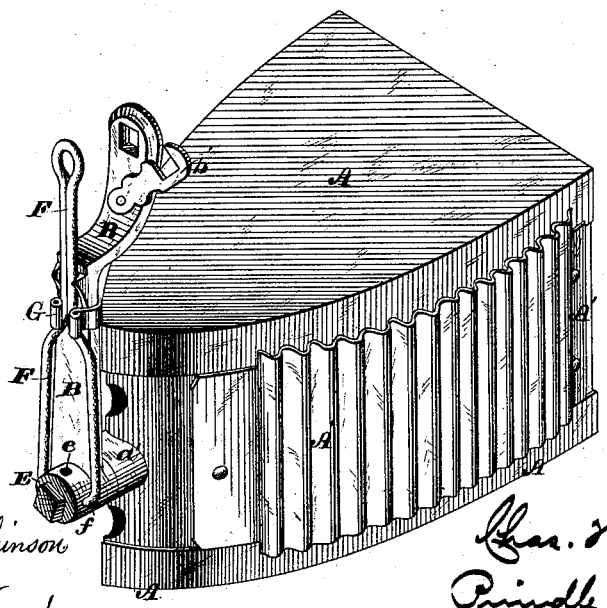
C. H. PARSONS.

Sad-Iron.

No. 207,299. Patented Aug. 20, 1878.

Fig. 1.





WITNESSES:

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Fig. 2.

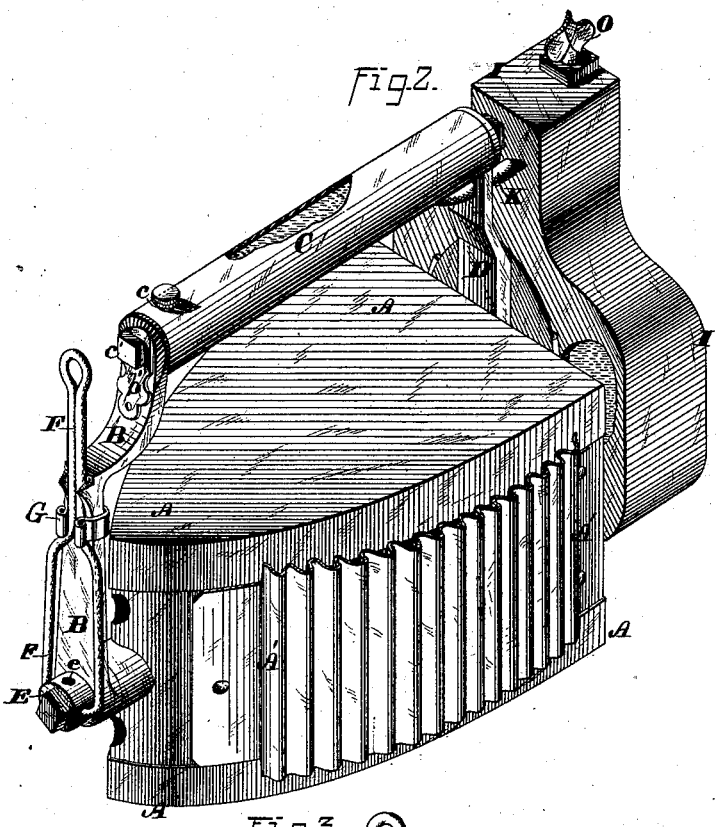

Fig. 3.

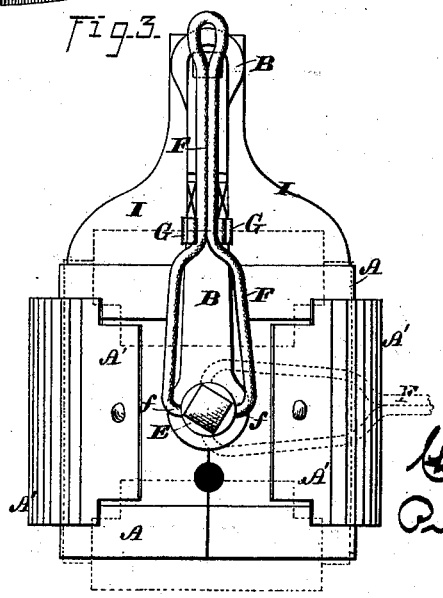

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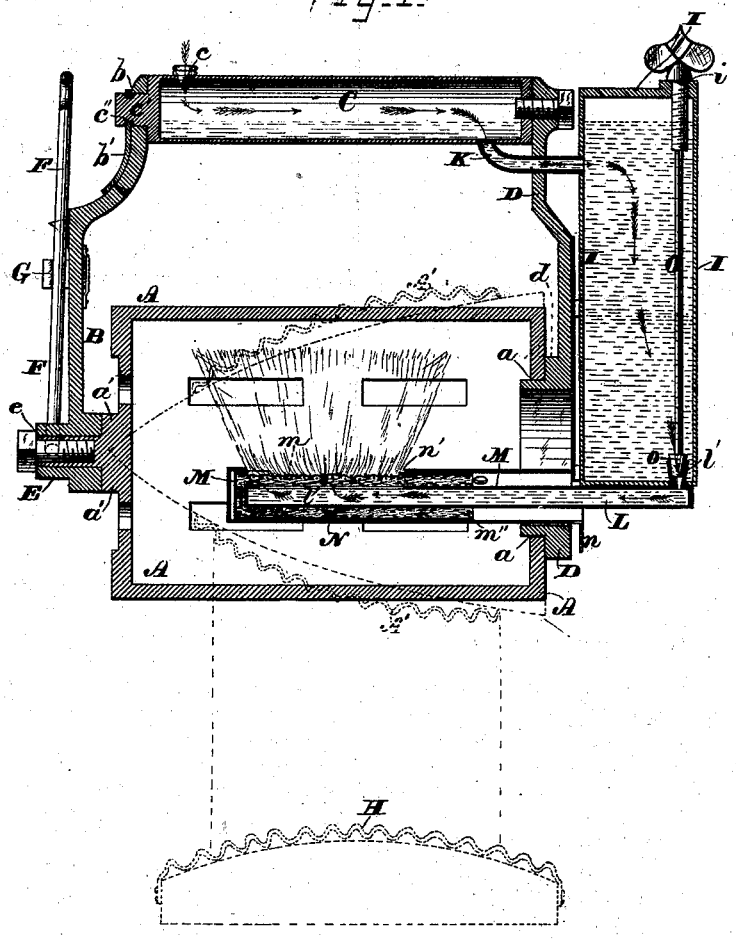
Fig. 4.



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UNITED STATES PATENT OFFICE.

CHARLES H. PARSONS, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN SAD-IRONS.

Specification forming part of Letters Patent No. **207,299**, dated August 20, 1878; application filed July 18, 1878.

To all whom it may concern:

Be it known that I, CHAS. H. PARSONS, of Boston, in the county of Suffolk, and in the State of Massachusetts, have invented certain new and useful Improvements in Sad-Irons; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of the parts of my device separated from each other. Fig. 2 is a like view of the same as arranged for use. Fig. 3 is a front elevation of said device, the dotted lines showing the arrangement of parts when the fluting-faces are in position for use; and Fig. 4 is a vertical central section of the same upon a line passing through the longitudinal axis.

Letters of like name and kind refer to like parts in each of the figures.

The design of my invention is to decrease the time and labor required in the ironing of clothing by rendering practicable the employment of a self-heating sad-iron; and to this end it consists, principally, in the peculiar construction of the burner, substantially as and for the purpose hereinafter shown.

It consists, further, in the means employed for connecting the reservoir, burner, &c., with the sad-iron, substantially as and for the purpose hereinafter shown and described.

It consists, further, in the means employed for rotating the sad-iron to and securing the same in position, substantially as and for the purpose hereinafter specified.

It consists, finally, in the device as a whole, its several parts being constructed and combined to operate in the manner and for the purpose substantially as hereinafter set forth.

In the annexed drawings, A represents a double-faced sad-iron, which, in plan view, has the usual form, is made hollow, and provided at its rear end with an axial opening, *a*, and at its front end has an axial trunnion, *a'*. Journaled upon the trunnion *a'* is an arm, B, which from thence extends upward, and at its upper end is connected to or with one end of a handle, C, while to the opposite end of said handle is secured one end of a second arm, D, that from thence extends downward, and at its lower end is provided with an annular flange, *d*, which extends into and loosely fills the opening *a* within the rear end of said sad-iron A.

The arrangement shown enables the said iron A to be rotated upon its axial bearings, so as to present either face downward; and in order that, when in position, said iron may be locked, the following-described means are employed:

Secured rigidly to or upon the trunnion *a'*, outside of the arm B, is a cylindrical block, E, which is provided with four radial openings, *e*, that are equidistant from each other, and are arranged so that each has a line at a right angle to one of the faces or sides of the sad-iron. Within opposite openings *e* of the block E are placed the hooked ends *f* of a handle, F, which is constructed of or from wire in the form shown in Fig. 3, and has sufficient inward spring to said ends to cause them to maintain their engagement with said block.

Near the center of the arm B is provided a spring-catch, G, with which the arm F may be caused to engage when occupying a vertical position, in which position said arm is thus held, unless purposely released, and prevents the sad-iron A from turning.

To change the position of the sad-iron and cause the lower face to be uppermost, the handle F is disengaged from the catch G, is turned laterally downward until said iron occupies the desired position, and is then moved outward, upward, and rearward, until in position to re-engage with said catch G.

The sides of the sad-iron A are provided with corrugations A', which, in connection with a correspondingly-corrugated base, H, form fluters, and enable textile fabrics to be crimped or fluted. By removing the hooked ends *f* of the handle F from engagement with the block E and re-engaging the same with the second set of openings *e*, either of said fluting-faces may be turned to and locked in position for use.

Attached to or upon the outer side of the arm D is a metal reservoir, I, which has preferably the form shown in Fig. 1, and near its upper end is connected, by means of a pipe, K, with the handle C, which handle is hollow and forms part of said reservoir.

From the lower end of the reservoir I a pipe, L, extends horizontally into the interior of

the sad-iron A, and within said space is provided within its upper side with a longitudinal slot, *l*, through which liquid may pass outward.

Surrounding the portion of the pipe L which is slotted is a larger pipe, M, that is closed at its inner end, and along its upper side is provided with a broad opening, which is inclosed by means of wire-gauze *m*. Along each side of said gauze-covered opening are provided a number of air-holes, *m'*, while the space between said pipes is filled with asbestus, mineral wool, or other suitable non-combustible absorbent, *m''*.

Around the pipe M is placed a cylindrical casing, N, that extends outward to the reservoir I, and at such point is provided with a radial arm, *n*, by means of which said casing can be rotated so as to cause an opening, *n'*, within one of its sides to coincide with the gauze opening *m* of the pipe M; or it may be turned until a portion or the whole of its solid portion comes opposite to said gauze, and covers the same entirely or partially, so as to lessen or extinguish the flame.

Alcohol is admitted to the reservoir I through an opening, *c*, in the handle C, which handle forms part of said reservoir, and materially increases its capacity.

The flow of liquid to the burner is regulated by means of a valve, *o*, which is formed upon the lower end of the rod O, that passes downward through a threaded opening, *i*, in the upper end of the reservoir I, the upper portion of said rod being correspondingly threaded. Said valve *o* fits into the upturned end *l'* of the pipe L, and by turning said rod O to the right or to the left said valve will be pressed downward into or withdrawn from said pipe.

In order that the burner may be removed for the purpose of igniting the alcohol, the front end of the handle C is provided with a square stud, *c'*, which fits into and extends through a corresponding opening, *b*, in the arm B, and at a point upon a line with the outer face of said arm has a groove, *c''*, that receives a hook-plate, *b'*, which is pivoted upon said arm, said plate being capable of being turned into engagement with said groove, so as to lock said stud in place and prevent the removal of said handle; or it may be turned away from said groove, and thus leave said stud free to be withdrawn.

Air for the purpose of combustion is admitted to the interior of the sad-iron A through openings in its ends and sides, while the gases of combustion escape through the same channel.

The device thus constructed furnishes a convenient and easily-managed means whereby the operation of ironing clothes may be performed with one iron, and may be continued for several hours without the interruption and annoyance attendant upon the use of sad-irons which require to be heated upon a stove or other separate heater.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

1. The hereinbefore-described burner, consisting of the slotted pipe L *l*, the pipe M, having a wire-gauze-covered opening, *m*, the absorbent packing *m''* interposed between said pipes and the cover N, provided with the opening *n'* and operating-arm *n*, all combined to operate in the manner and for the purpose substantially as shown.

2. As a means for connecting the burner and reservoir with the sad-iron, the square stud *c'*, provided with the groove *c''* and fitted into the opening *b* in the arm B, and the locking-plate *b'*, pivoted upon said arm and capable of engagement with said groove, all combined substantially as and for the purpose shown and described.

3. As a means for rotating the sad-iron to and securing the same in position, the block E, having radial openings *e* and secured upon the trunnion *a'*, the spring-handle F, provided with hooked ends *f*, which are capable of engagement with said openings *e*, and the spring-catch G, attached to the arm B and arranged to engage with said handle, all combined substantially as specified.

4. The hereinbefore-described reversible sad-iron and fluter, consisting of the sad-iron A, having the opening *a* and trunnion *a'*, the arms B and D, the handle C, the block E, having radial openings *e*, the spring-handle F *f*, the catch G, the corrugated sides A', the corrugated base H, the reservoir I, the pipes K and L, and the burner, all constructed and combined to operate in the manner and for the purpose substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 13th day of July, 1878.

CHS. H. PARSONS.

Witnesses:
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EBEN N. WALTON.