Aug. 30, 1932. W. K. TAVENDER 1,874,832

STEAM HEATED SADIRON

Filed Aug. 20, 1931

Fig: 1

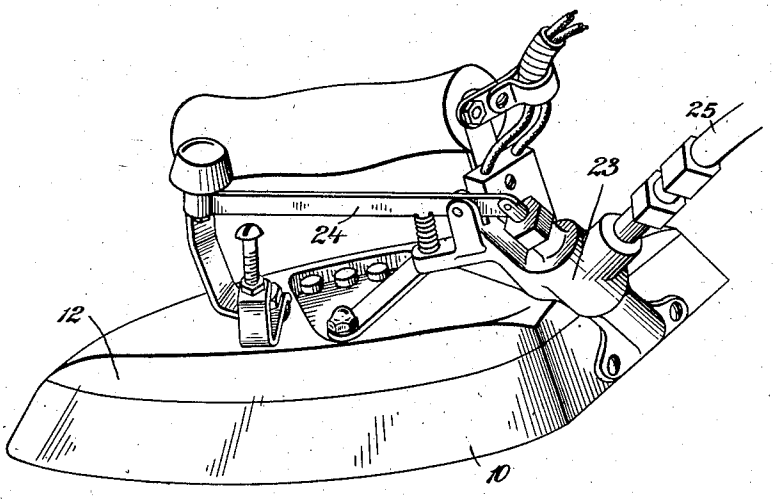


Fig: 2

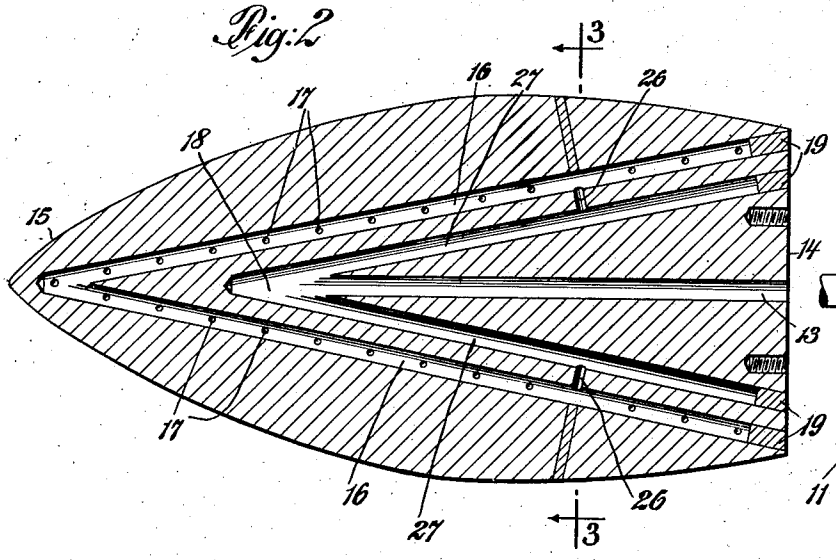
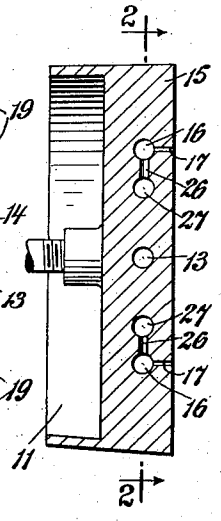


Fig: 3.



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UNITED STATES PATENT OFFICE

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STEAM HEATED SADIRON

Application filed August 20, 1931. Serial No. 558,210.

My invention relates to electrically heated irons and the object of my invention is to provide an electrically heated iron with means for generating and superheating steam and releasing the steam thru a plurality of outlets located in the bottom of the iron.

The particular construction of the electrical heating features of an iron is not shown in the present drawing as any of the usual heaters designed for the purpose may be used, but the novel features of construction relate to the steam superheating chamber.

Referring to the drawing which forms a part of this specification:

Fig. 1 is a perspective view of the iron, illustrating its form and general appearance.

Fig. 2 is a longitudinal sectional plan view through the steam chamber of the iron.

Fig. 3 is a cross sectional view taken on line 3—3 of Fig. 2.

10 indicates the base portion of the iron which is provided with a chamber 11 located in its upper side to receive the heating coil of an electric heater, carried by the top portion 12.

13 indicates a straight central bore which extends from the butt end 14 of the iron to near the point 15 thereof.

16 indicates bores which serve as passages for conducting the steam to the outlets 17 drilled in the base 10 in communication with the bores 16. The bores 27 respectively, extend from the end 14 of the iron at an angle to the central bore 13 and intersect the bore 13 near the front end of the iron to form a chamber 18. Each of the bores is made by drilling operations, and the ends of the bores 16 and 27 are plugged at 19, as shown. The outlet openings 17 are of small diameter and are spaced apart from each other in alignment at predetermined distances.

The valve mechanism 20 and its control levers are described in my co-pending application, Ser. #490,151 for improvements in sad irons, filed October 21, 1930.

The lever 24 controls a valve located in the body 23 which governs the flow of steam from the pipe 25 to the passage 13.

26 indicates a restricted passage on each side of the iron connecting the passages 16 with the bores 27, the bores 27 being known as the distributing chamber. The chamber 18 serves as a water trap and the chambers 27 serve as super-heating chambers, heated by the electrical coils or electric heaters carried in the chamber 11.

It has been found that by the use of the chambers as arranged together with the restricted passages 26, by the time the steam reaches the said restricted passages, the flow of steam is retarded and all moisture is converted into steam at a sufficiently high temperature to prevent condensation, as the steam enters the chambers 16 and flows through the outlets 17 at a temperature considerably above 212°, whereas prior to the use of said restricted passages 26 the steam was not super-heated to the same degree and the operation of the iron was therefore not so perfect.

As above constructed, the iron delivers nothing but steam through the outlets 17 and moisture has been entirely eliminated.

Having thus described my invention, I claim as new:—

1. An electrically heated sad iron comprising a base portion having a central bore extending from the butt end to near the front end thereof, and having a return bore located at each side thereof extending from the central bore to near its butt end, said iron also containing two outer bores having outlet passages leading therefrom, each of said return bores being connected to one of said outer bores by a restricted passage.

2. The structure as claimed in claim 1, said restricted passage being located about midway between the butt end of the iron and the middle portion thereof.

3. An electrically heated sad iron comprising a base portion have a bore extending from butt end to near front end thereof and a return bore at each side thereof extending from said first bore and in open communication therewith, said iron having two outer bores extending from near the butt end to the point thereof and in open communication with each other at the front end, and having outlets extending to the underside of the iron, and restricted passages leading

from the inner side bores to said outer bores.

4. A sad iron comprising a base having a chamber for an electric heater, said base portion having a plurality of longitudinally extending cylindrical bores, the outer bores having outlet passages for steam and connected with the inner bores by passages of restricted area for the purpose stated.

5. A sad iron comprising a base having a chamber for an electric heater, said base portion having an inlet bore for steam extending from the butt end to near the front end of the iron and two inner bores in open communication therewith leading from said front end to the butt end of the iron; and two outer bores in open communication at the front end and extending from the front end to the butt of the iron and having restricted outlet passages for steam, said last bores being connected with the inner bores by passages of restricted area.

6. An electrically heated sad iron comprising a base having a bore therein extending forwardly from its butt end, a second bore in communication with said bore, a third bore connected to second bore by a passage, and outlet passages in said third bore.

In testimony whereof WALTER K. TAVENDER affixes his signature.

WALTER K. TAVENDER.