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ELECTRIC BRANDING IRON

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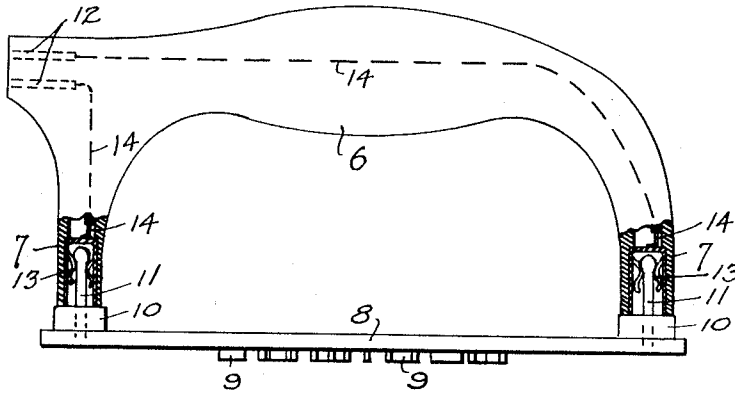


Fig. 1.



Fig. 2.

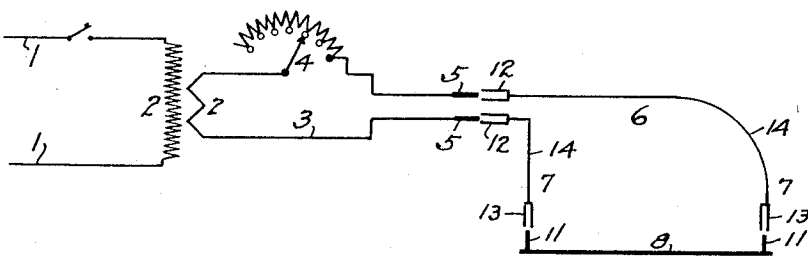


Fig. 3

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ELECTRIC BRANDING IRON

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This invention relates to branding irons and has special reference to the means of heating the same. The objects of my invention are, first, to provide a branding iron which may be continuously maintained at a substantially uniform branding temperature and which, therefore, may be used in such industries where the flow of articles to be branded is substantially continuous; second, to provide a means of heating a branding iron which will not require the branding surface to come into contact with a flame, or heated coals, or other fouling material, thereby keeping the brand clean and clear even after much use; to provide a branding plate which may be changed from time to time without changing the electric connections; fourth, to provide an electric circuit wherein the low-voltage large-amperage current traverses a very short circuit of which the major resistance comprises the branding plate; and fifth, to provide a branding iron which is cheap to make, simple to operate, and effective in use.

I attain these and other objects by the devices and arrangements illustrated in the accompanying drawing, in which—

Fig. 1 is a side elevation of the complete branding iron, showing portions thereof in section to reveal the construction thereof; Fig. 2 is a bottom-plan view of the branding plate; and Fig. 3 is a diagrammatic view showing the electric circuit whereby the branding plate is heated.

Similar numerals of reference refer to similar parts throughout the several views.

Referring to the drawing, the usual alternating electric-light circuit 1 has a pressure or potential of about 110 volts. A step-down transformer 2 is inserted in said circuit and is of such proportions that the voltage of the secondary circuit 3 thereof is reduced to about six volts. A rheostat 4 may be inserted in this secondary circuit 3 for the purpose of controlling the current therein. The secondary circuit 3 terminates in a pair of plugs 5.

The handle 6 of the branding iron is of inverted U-shape, the ends of the two vertical portions 7 thereof being adapted to be

connected to the branding plate 8, as herein-after described. The handle 6 is preferably made hollow and of suitable insulating material, and is provided with electrical sockets as hereinafter described, suitably secured therein.

The branding plate 8 comprises a flat metal plate from the lower side of which extend the letters or figures 9 forming the brand. These letters 9 are preferably formed integral with the main body of the plate 8. A pair of bosses 10 are similarly formed on the upper side of the plate 8, adjacent its ends, and are provided with plugs 11 extending upward therefrom whereby the plate 8 is secured to the two vertical legs 7 of the handle, and whereby the current is conducted to the plate 8 to heat it. The plate 8 is preferably made of high resistance, non-corroding metal, such as nichrome.

The handle 6 is provided, in a suitable part, with a pair of sockets 12 adapted to receive the plugs 5 of the said secondary circuit 3. The ends of the vertical legs 7 of the handle 6, are each provided with a socket 13, into which the plugs 11 of the branding plate 8 fit and are removably retained. Each socket 12 is connected to a corresponding socket 13 by means of insulated wires 14.

Thus it will be seen that, when the two plugs 5 are inserted in the sockets 12 and the two plugs 11 are inserted in the sockets 13, the secondary circuit 3 is completed and the electric current generated from the transformer 2 flows from end to end of the branding plate 8. This plate 8 is thus heated to a sufficient degree to perform its function of burning the letters or other brand mark into the wood, or other material being branded, and is continuously maintained at such heat. The temperature of the plate 8 may be controlled by the manipulation of the rheostat 4. Since the temperature of the plate does not vary to any substantial degree, it follows that the articles may be branded in quick succession without having to reheat or clean the branding iron. When the branding mark is to be changed, in order to apply a dif-

ferent brand to the articles, it is only necessary to pull off the plate 8 from the handle 6, thus removing the plugs 11 from the sockets 13, and substituting therefor another such plate in its place, and thus continuing the action with but a short interruption while the new brand plate is reaching its desired temperature.

Having described my invention, what I claim and desire to secure by Letters Patent, is:—

1. In an electric branding iron, the combination of an insulated manipulating handle having two separated legs; a unitary metallic branding iron formed of a high resistance material and adapted to be heated to branding temperature by an electric current passing from end to end thereof; electric contact plugs extending from one side of said plate and adapted to enter sockets formed in the legs of said manipulating handle; means connecting said sockets with a source of electric energy; and branding marks formed integral with said plate and extending from the opposite side of said plate and heated therewith.

2. In an electric branding iron, the combination of an insulated manipulating handle having two separated legs; a unitary metallic branding iron formed of a high resistance material and adapted to be heated to branding temperature by an electric current passing from end to end thereof; electric contact plugs extending from one side of said plate; sockets in the ends of said legs of said manipulating handle and adapted to releasably hold said contact plugs therein; means connecting said sockets with a source of electric energy; and branding marks formed integral with said plate and extending from the opposite side thereof and heated therewith.

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