

A. BARTON.
 SHOE TOE HEATER.
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1,155,196.

Patented Sept. 28, 1915.

Fig. 2.

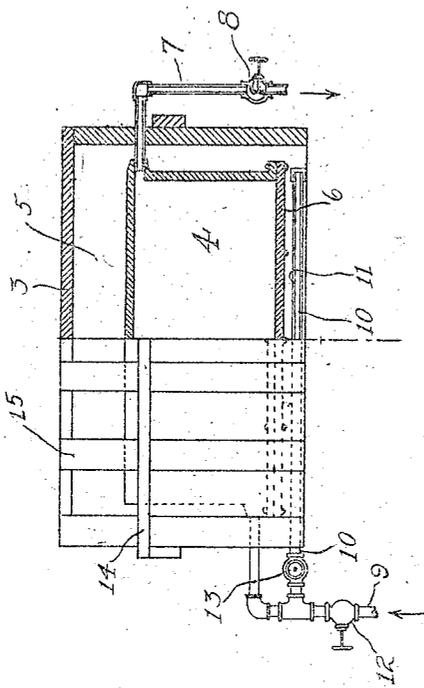
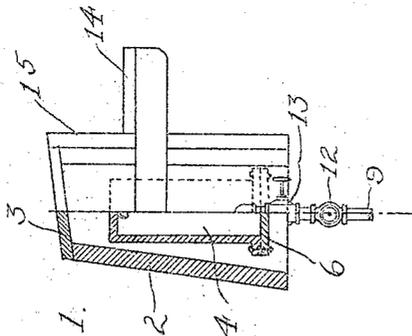


Fig. 1.



WITNESSES:

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SHOE-TOE HEATER.

REISSUED

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ALFRED BARTON, a citizen of the United States, residing at Marlboro, Massachusetts, have invented certain new and useful Improvements in Shoe-Toe Heaters, of which the following is a specification.

The general purpose of the invention is to heat box toes to soften the box for different operations during manufacture.

The particular purpose of the invention is to provide a heater which utilizes steam and supplies heat and moisture suitably regulated, to properly heat and soften the toes in an expeditious way and without burning.

Other objects and advantages of the invention will be sufficiently understood by persons skilled in the art from the following detailed description of the accompanying drawing which shows one exemplifying embodiment of the invention. This embodiment is the best that I have up to the present time devised; but it is to be understood that the invention can be embodied in other forms, and I do not limit myself to details except as claimed hereafter.

Figure 1 is an end view, partly in section and partly in elevation. Fig. 2 is a side view, partly in section and partly in elevation.

Reference character 1 designates a housing which, for reasons of steam and heat economy, is usually made with a sloping back wall 2, and a sloping top 3. This provides within the housing sufficient space for the steam chest and for the shoe toes without any waste space which would require unnecessary expenditure of heat.

Within the housing is a steam chest 4, which conforms somewhat to the shape of the housing. The shape of the chest may, of course, vary considerably. It is arranged so as to leave a space 5 below the top 3. A convenient construction of the chest includes a removable bottom plate 6. A discharge pipe 7 is connected to the chest at one end near the top, and this pipe is provided with a valve 8. The supply pipe 9 for steam is connected to the chest at the opposite end and near the bottom. Branch 10 from this pipe extends beneath the steam chest, usu-

ally running along the whole length thereof, and is provided at the top with a plurality of steam vents 11, of suitable size and arrangement. The valve 12 controls the supply of steam to the chest, and another valve 13 controls the supply of steam to pipe 10.

At the front of the housing is a suitably supported shelf 14, and the otherwise open front of the space 5 is suitably divided into shoe-toe-receiving compartments by vertical slats 15.

In operation, the supply valve 12 is usually wide open; the discharge valve 8 is nearly closed (more or less), and valve 13 leading to the steam spray pipe 10 is nearly closed (more or less). Valve 13 is adjusted to control humidity as desired; valve 8 is adjusted to control the degree of heat. Air passes up through the open bottom of the housing 1, is heated by the steam chest and moistened by condensed steam from pipe 10, and suitably moistened heat is thus applied to the shoe toes, which are placed so that they project, say, about one inch and a half into the space 5. It is found in operation that this appliance heats shoe toes of the class described quickly and satisfactorily without burning or other undesirable result.

I claim:

1. A heater for the purpose mentioned, comprising a housing having an open bottom, rear and top walls and upper front openings for shoe toes with a support adjacent thereto, a steam chest within the housing, a steam supply pipe leading to the chest, a valve therein, a discharge pipe leading from the chest, an apertured steam spray pipe leading from the supply pipe and located beneath the chest, and a valve for controlling the supply of steam to the spray pipe.

2. A heater for the purpose mentioned, comprising a housing having an open bottom, inclined rear and top walls and upper front openings for shoe toes with a support adjacent thereto, a steam chest within the housing, a steam supply pipe leading to the chest, a valve therein, a discharge pipe leading from the chest, a steam spray pipe beneath the chest provided with steam aper-

tures, and a valve controlling the supply of steam to said spray pipe from the main steam pipe.

3. A heater for the purpose mentioned, comprising a housing having an open bottom, inclined rear and top walls and upper front openings for shoe toes with a support adjacent thereto, a steam chest within the

housing, a steam supply pipe leading to the chest, a valve therein, a discharge pipe leading from the chest, a valve therein, a steam spray pipe beneath the chest provided with apertures, and a valve controlling the supply of steam to said spray pipe from the main steam pipe. 10

ALFRED BARTON.