June 24, 1924. 1,498,655

O. HAUPTMAN

HEATING ELEMENT

Filed March 31, 1923 2 Sheets-Sheet 1

Fig. 1.

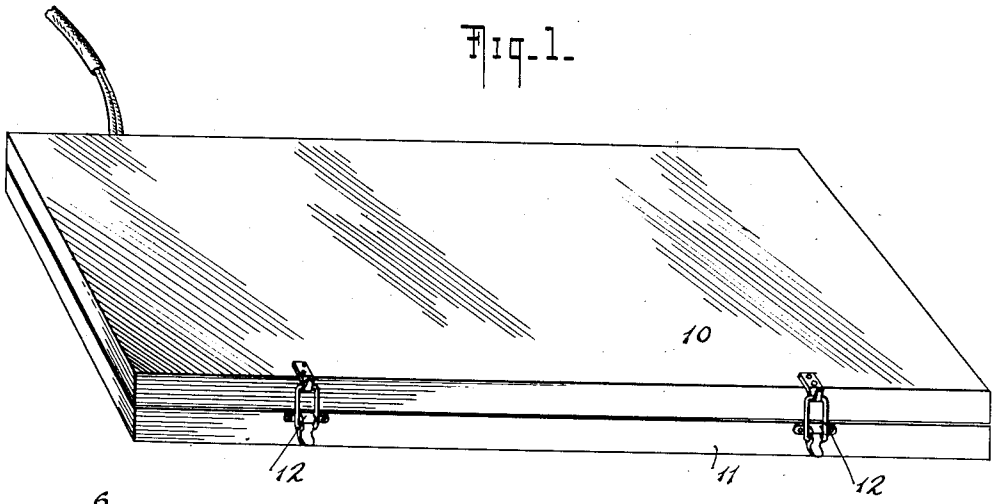


Fig. 2.

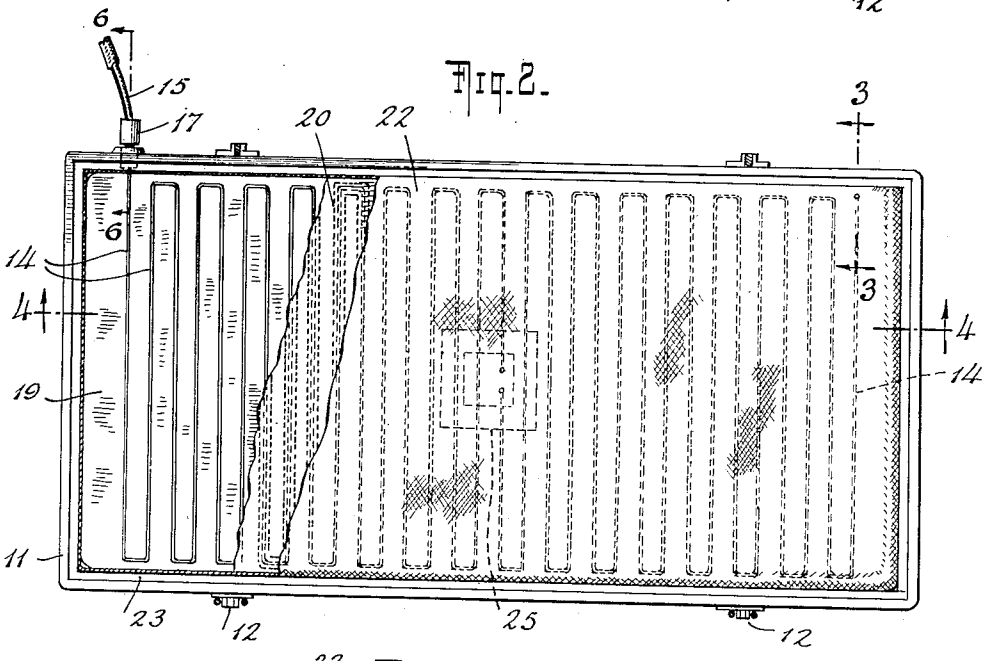
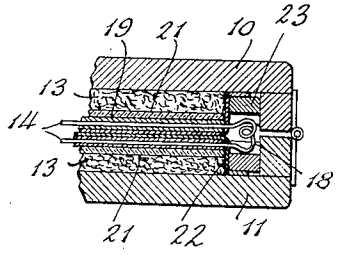


Fig. 3.



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Fig. 4.

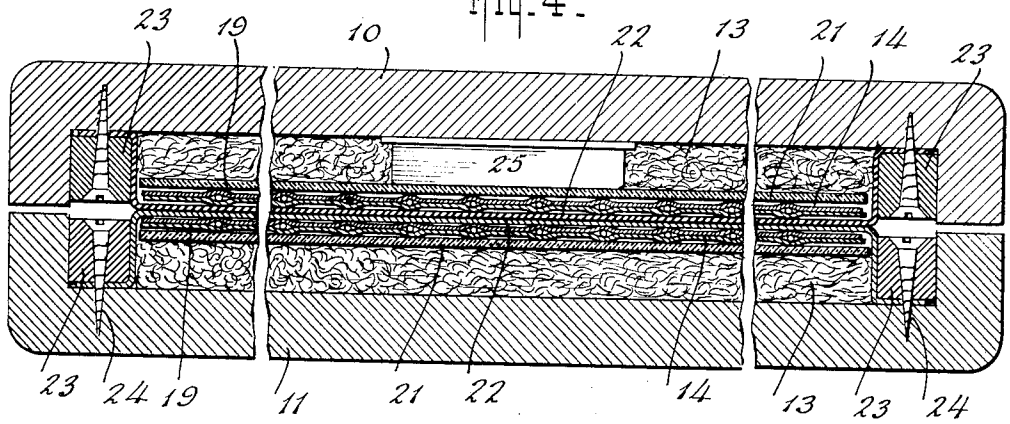


Fig. 5.

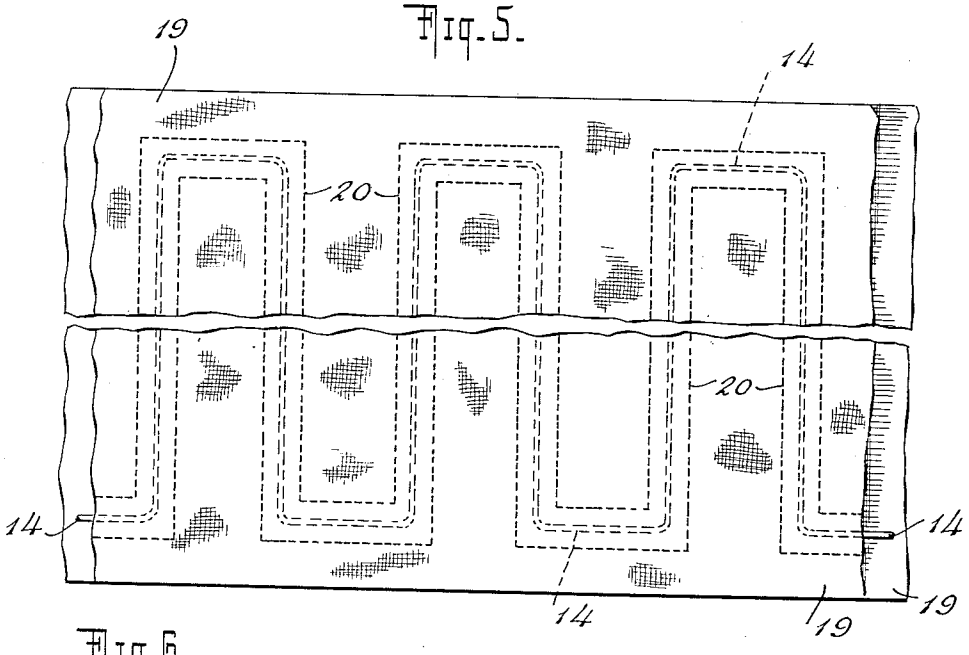
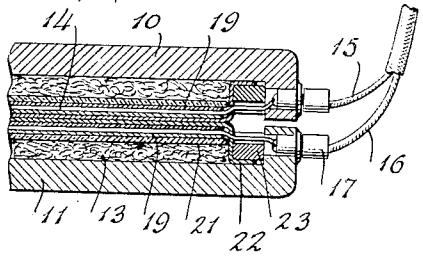


Fig. 6.



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UNITED STATES PATENT OFFICE.

OSCAR HAUPTMAN, OF NEW YORK, N. Y.

HEATING ELEMENT.

Application filed March 31, 1923. Serial No. 629,103.

To all whom it may concern:

Be it known that I, OSCAR HAUPTMAN, a citizen of the United States, residing at New York, county of New York, and State of New York, have invented certain new and useful Improvements in Heating Elements, of which the following is a specification.

The principal object of this invention is to provide a new and improved heating unit particularly devised for heating large surfaces such as are used in clothes pressing devices of the type disclosed in my co-pending applications for Patents Serial No. 584,605 filed August 28th, 1922 and Serial No. 629,102, filed March 31, 1923.

A further object is to so construct the heating unit that it will be able to withstand the heavy pressures to which it is subjected in devices of the above mentioned character.

For the accomplishment of these and such further objects as will hereinafter be apparent to those skilled in the art to which this appertains, the invention consists in the construction, combination and arrangement of parts herein specifically described and illustrated in the accompanying drawings, wherein is shown a preferred embodiment of the invention, but it is to be understood that changes, variations and modifications may be resorted to which fall within the scope of the claims hereunto appended.

In the drawings forming a portion of this specification:

Fig. 1 is a perspective view of a pressing device with which the heating unit is intended to be used.

Fig. 2 is a horizontal section through the pressing device.

Fig. 3 is an enlarged cross sectional detail on the line 3—3 of Fig. 2.

Fig. 4 is an enlarged section on the line 4—4 of Fig. 2.

Fig. 5 is a plan view of the heating unit per se and.

Fig. 6 is a section on the line 6—6 of Fig. 2.

As shown in the drawings the pressing device consists of a pair of pivotally connected upper and lower shallow box-like sections 10 and 11 respectively secured in clamping engagement by the clamps 12. Each of the sections is provided with a backing 13 preferably of cotton padding or other suitable material upon the top of which the heating unit 14 is placed, it being understood that a heating unit will be placed in each section. The device is of sufficiently large dimensions to accommodate the full length of the legs of a pair of men's trousers and because of the extended dimensions of the device I have found it necessary to devise a special construction of the heating units. Each unit consists of a length of chrome nickel resistance wire, approximately 35 feet of #16 B & S gauge wire being used for each unit, and the length of wire being extended backward and forward transversely across the sections to form a plurality of spaced runs or stretches as clearly shown in the drawings. The current is brought into the heating units through the lead wires 15, and 16, the wire 15 leading to the unit of upper section and the wire 16 leading to the lower section, connection preferably being made through the separable plug connections 17 as shown in Fig. 6. The units are wired in series and connection between the units is made by means of the flexible wire 18 as shown in Fig. 3.

The wire 14 which is asbestos covered is placed between two sheets of canvas 19 which is stitched as at 20 to provide pockets thereby holding the wires against relative movement and the canvas acting as a protective covering for the wires and its asbestos covering. A sheet of insulating material 21 preferably of asbestos paper of substantially the same area as the backing 13 is placed upon the backing and the heating unit consisting of the wire secured between the canvas 19 is laid upon the insulating sheet 21, after which a pressing cloth 22 preferably of two sheets of canvas is laid over the heating units. The pressing cloth 22 is smoothed out and is held in a taut condition by means of the strips or bars 23 which are detachably secured to the sections as by the screws 24.

A suitable switch (not shown) is interposed in the lead wires 15 and 16 and a thermostat 25 for automatically regulating the temperature of the heating units is connected in series in the top unit.

The operation of the device is as follows, the garment to be pressed is placed upon the pressing cloth of the lower section 11 and the upper section is swung downwardly, and the clamps 12 are secured to hold the sections in clamping engagement. The manner in which the wires 14 are secured with-

in the canvas covering 19 prevents damage to asbestos covering of the wires, while the asbestos covering of the wires as well as the insulating sheet 21 will cause the heat from the wires to be distributed evenly across the whole area of the sections. The current being turned on will cause the temperature of the wires to be raised according to the well known principles of devices of this character, the thermostat 25 preventing the temperature from being raised to an excessive point by short circuiting the current. As the construction of the thermostat forms no part of the present invention a detailed description thereof is therefore omitted. I have found that sufficient heat is generated to thoroughly and efficiently press a pair of trousers in about three minutes with the use of my device.

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

1. An electrical heating unit comprising a pair of substantially rectangular canvas sheets, a length of resistance wire arranged in transversely extending spaced stretches between said sheets of canvas and means to secure said stretches of wires in spaced relationship.

2. An electrical heating unit comprising a pair of substantially rectangular canvas sheets, a length of resistance wire arranged in transversely extending spaced stretches between said sheets of canvas and means to secure said stretches of wires in spaced relationship comprising a plurality of pockets formed in said sheets.

3. An electrical heating unit comprising a pair of substantially rectangular canvas sheets, a length of resistance wire arranged in transversely extending spaced stretches between said sheets of canvas and said sheets of canvas being secured together by a plurality of rows of stitches adjacent to and extending in parallelism with said stretches of wire to provide pockets whereby said stretches will be secured in spaced relationship and kinking or breaking of said wires will be prevented.

4. An electrical heating unit comprising a pair of substantially rectangular canvas sheets, a length of resistance wire arranged in transversely extending spaced stretches between said sheets of canvas, insulating means interposed between said wires and canvas and means to secure said sheets of canvas together and to hold said stretches of wire securely between said canvas in spaced relationship whereby said canvas will protect said insulation and prevent kinking or breaking of said wire.

5. An electrical heating unit comprising a pair of substantially rectangular canvas sheets, a length of resistance wire arranged in transversely extending spaced stretches between said sheets of canvas, insulating means interposed between said wires and canvas, and said sheets of canvas being secured together by a plurality of rows of stitches adjacent to and extending in parallelism with said stretches of wire to provide a pocket in which said stretches of wire and insulating material are received.

In testimony whereof I have affixed my signature.

OSCAR HAUPTMAN.