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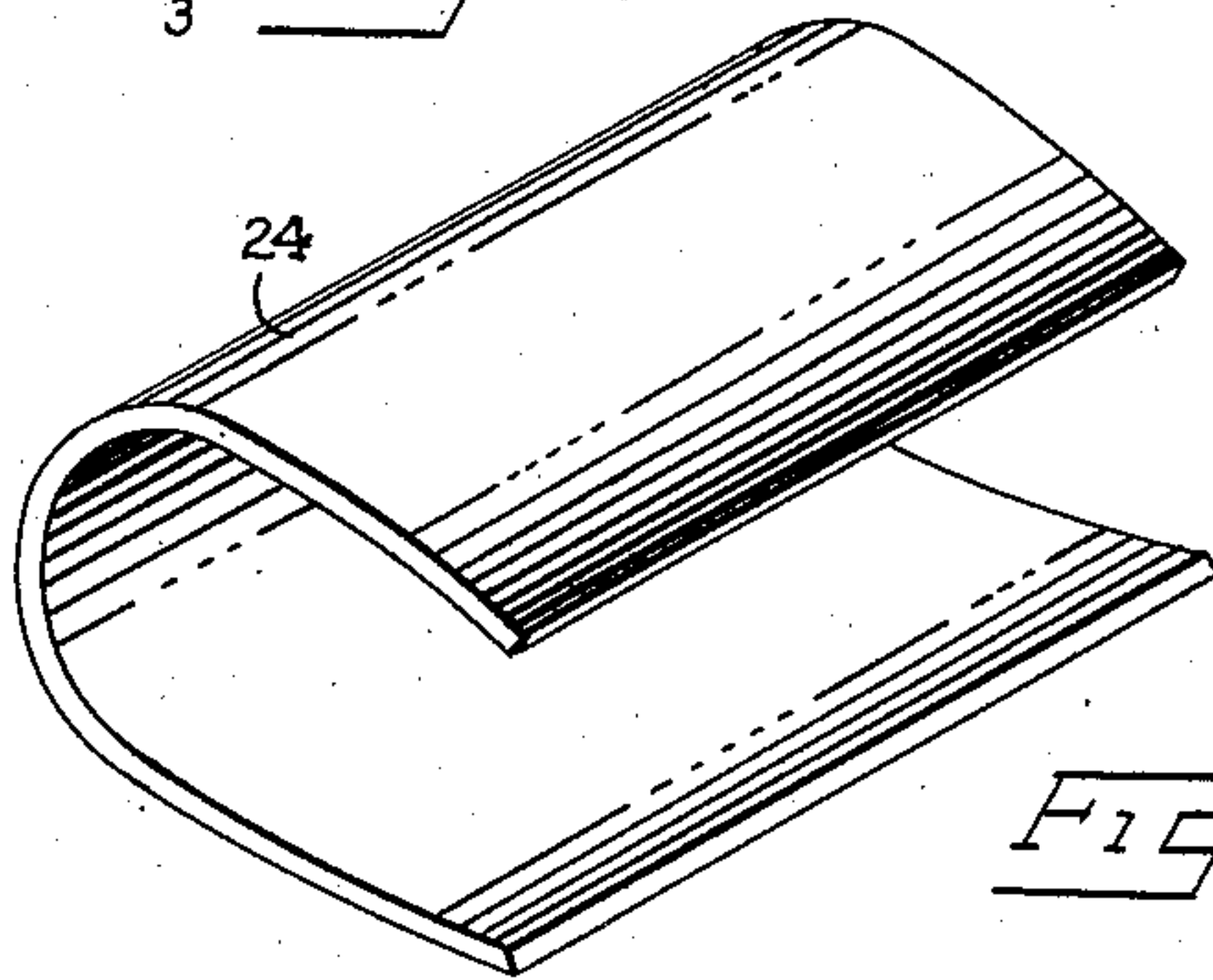
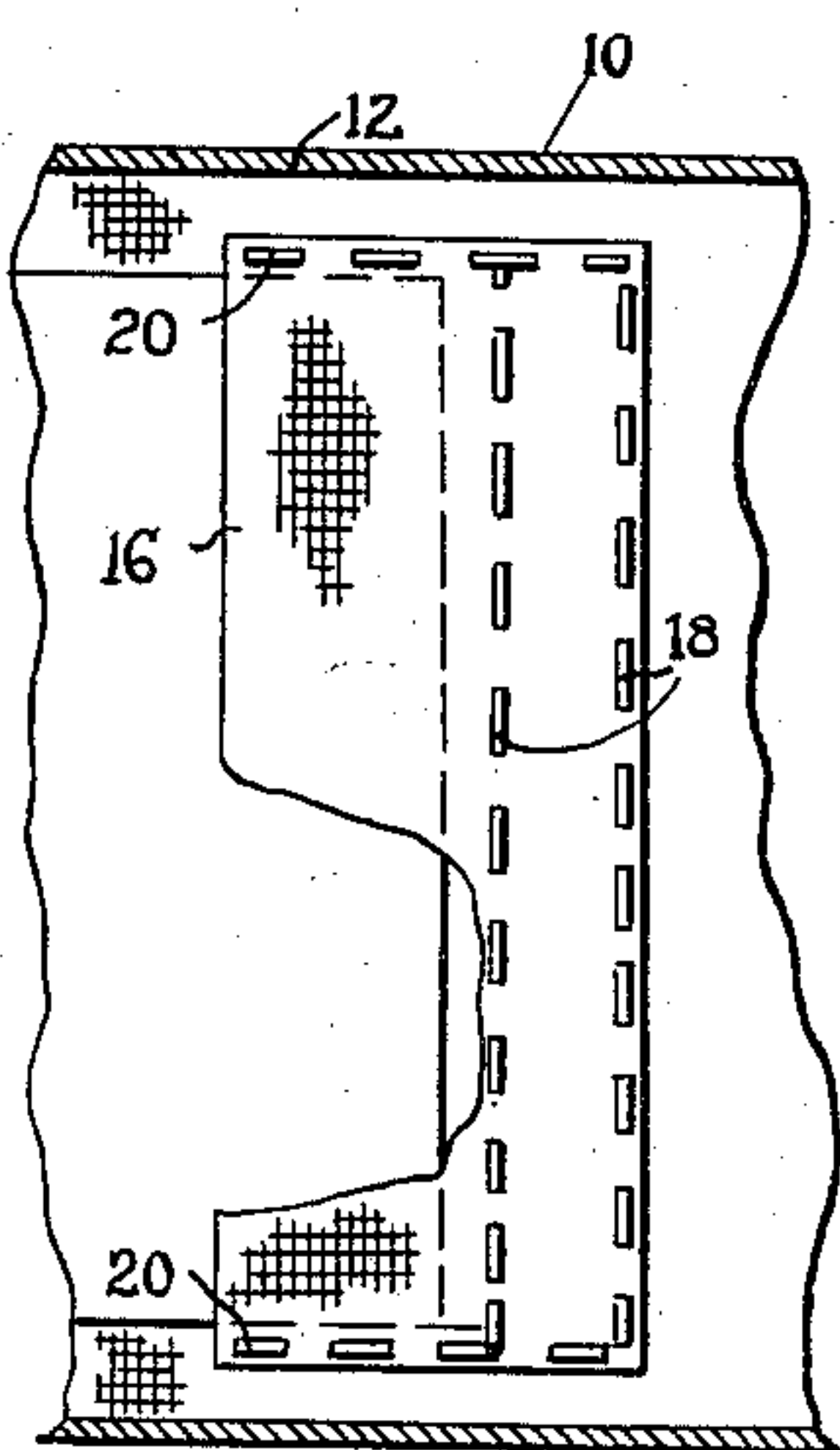
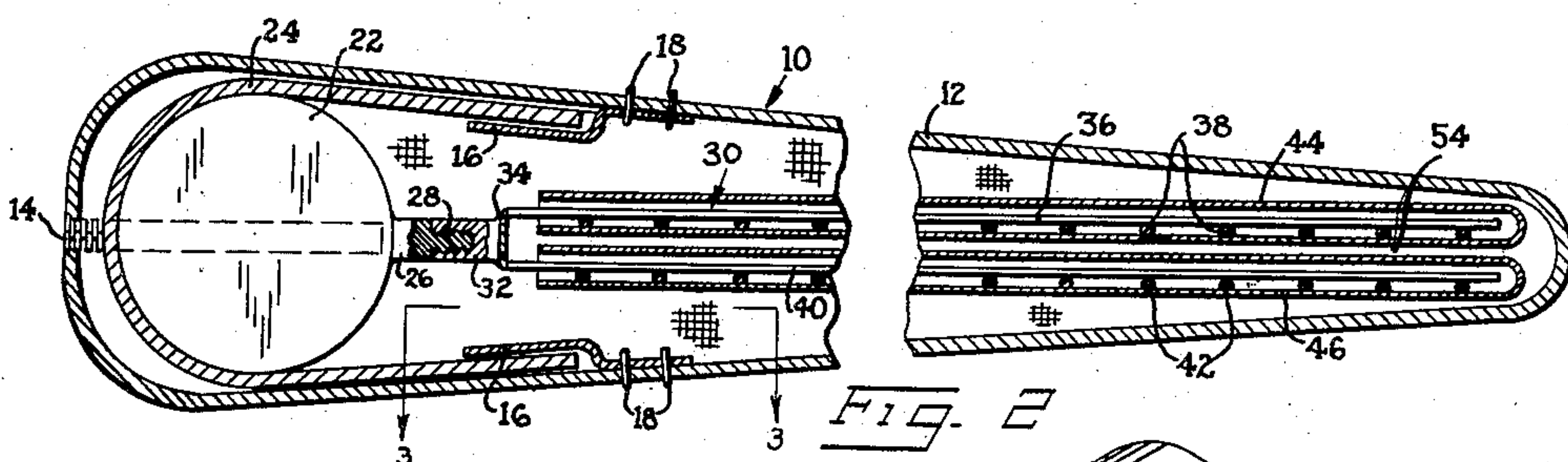
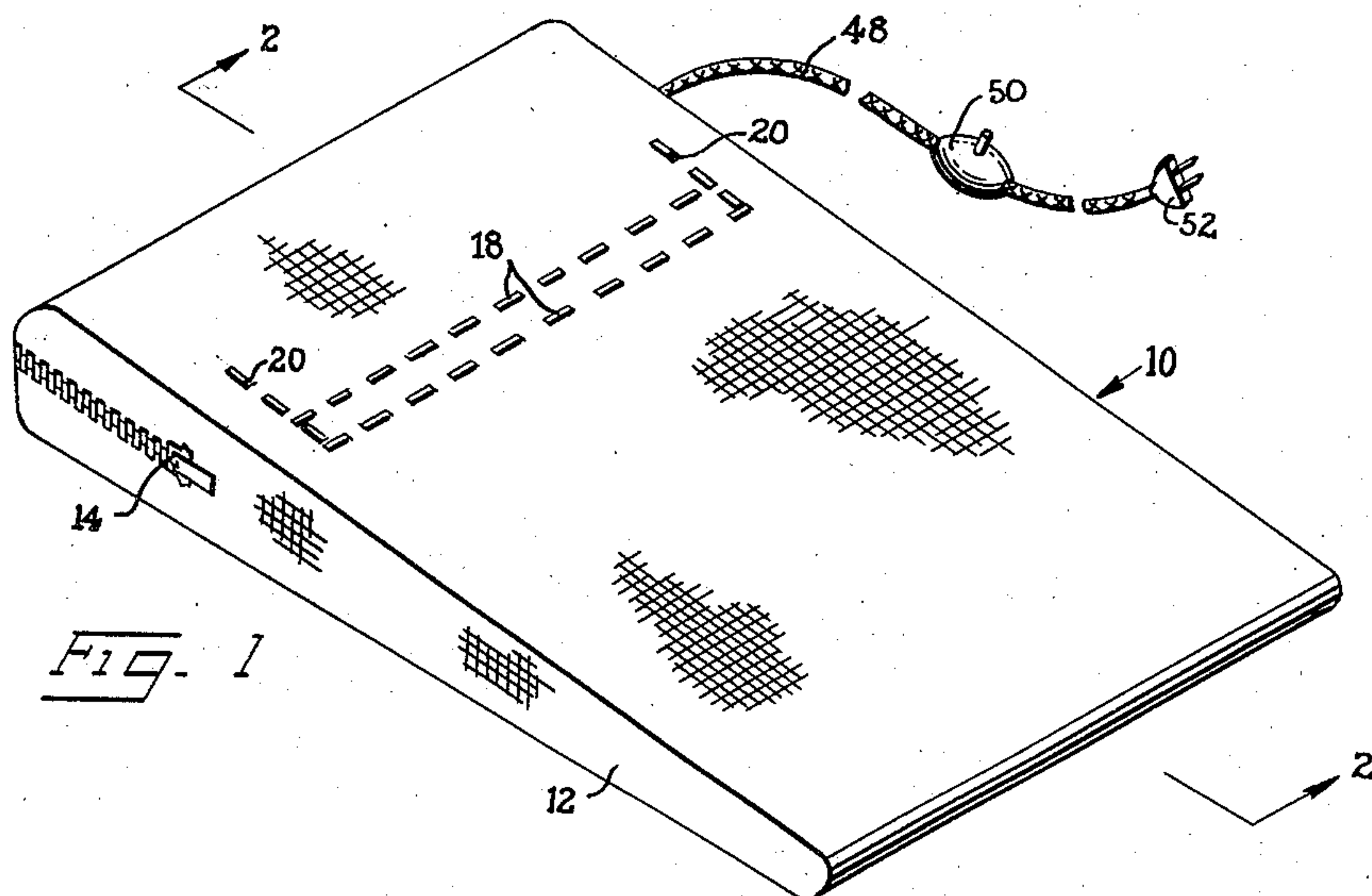
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2,850,009

ELECTRIC HEATING PAD AND VIBRATOR

Filed Jan. 25, 1956

2 Sheets-Sheet 1



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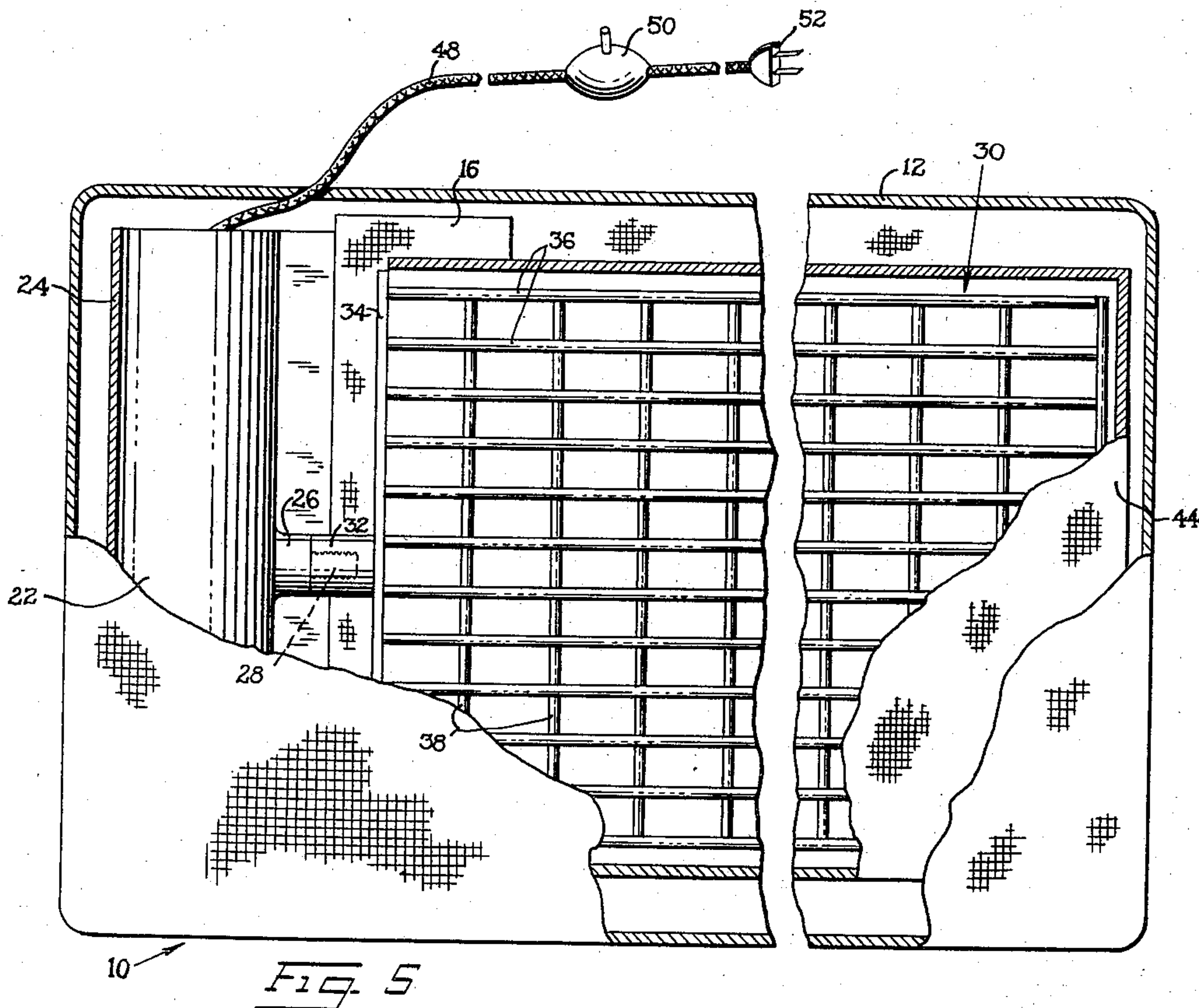


Fig. 5

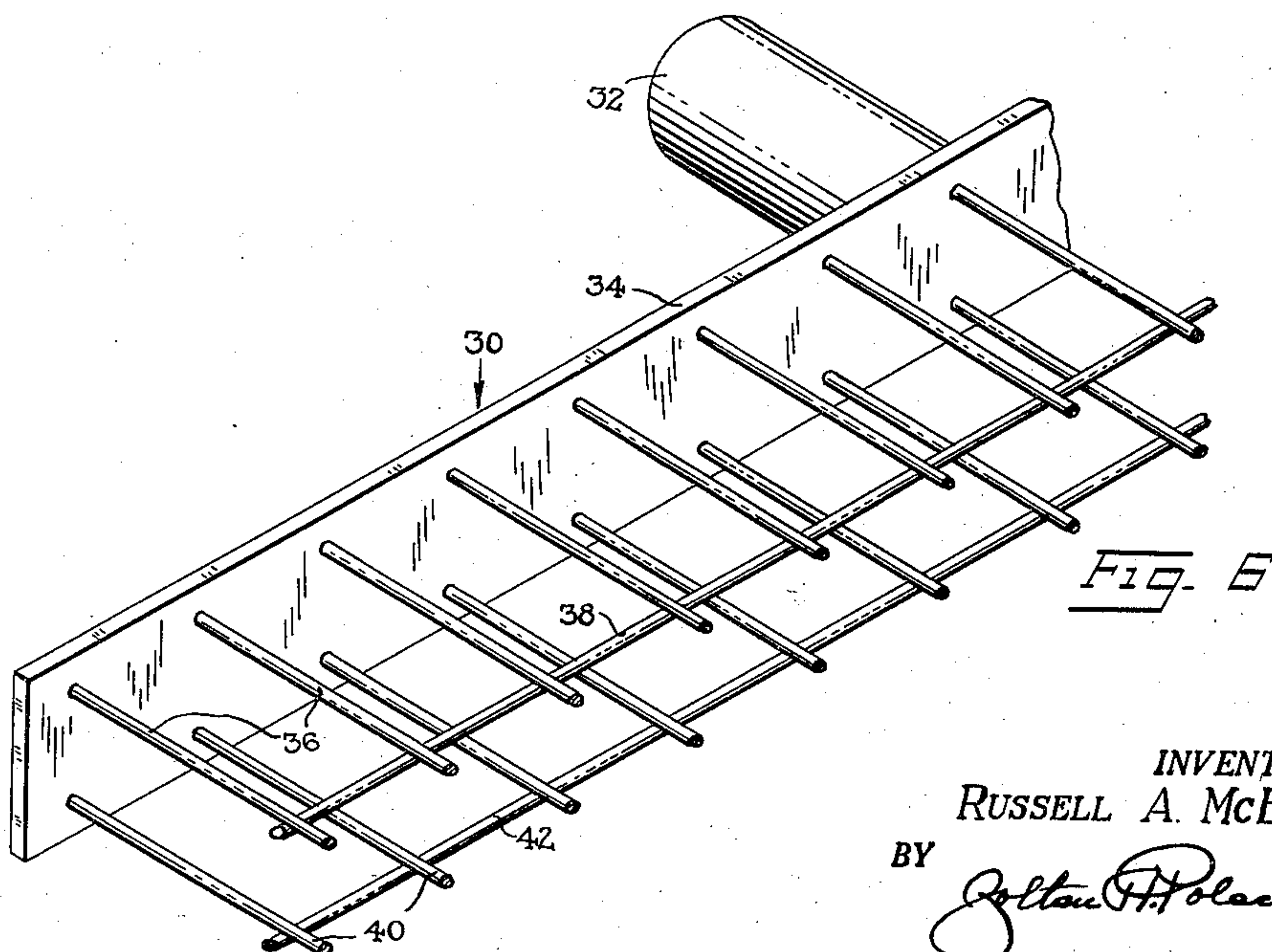


Fig. 6

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## ELECTRIC HEATING PAD AND VIBRATOR

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5 Claims. (Cl. 128—24.1)

The present invention, summarized briefly, is an improvement in electric therapeutic apparatus of the type wherein a heating pad is combined with a vibrator.

An important object is to provide a device of this type which will improve upon devices previously conceived for similar purposes, by reason of its adaptability to permit insertion or removal of a conventional heating pad, thus to permit the gentle vibratory action of the device to take place either simultaneously with the application of heat to a selected area of the body, or alternatively, without the application of such heat.

Another object is to provide a vibrating device of the type referred to wherein the vibratory action is transmitted to spaced, open ribs or frames, so designed as to confine a heating pad between them, so that a conventional heating pad so confined will be vibrated gently together with the remaining portions of the apparatus.

Another object is to provide a device as stated which will be of simple design, will be capable of manufacture at low cost, will be adapted to transmit either vibratory motion alone, or vibration with accompanying heat to a substantial area of the body without the necessity of manually applying a hand vibrator, and will be attractively and inexpensively designed.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a perspective view of therapeutic apparatus formed in accordance with the present invention.

Fig. 2 is an enlarged longitudinal sectional view on line 2—2 of Fig. 1, portions being broken away.

Fig. 3 is a fragmentary section on line 3—3 of Fig. 2.

Fig. 4 is a perspective view, still further enlarged, of the motor cover.

Fig. 5 is a view on the same scale as Fig. 2 showing the device in plan, portions being broken away and other portions being shown in section.

Fig. 6 is a greatly enlarged, fragmentary perspective view of the frame means per se.

The device 10 constituting the present invention includes a cover or envelope 12 preferably formed of a quilted or otherwise padded material, and exteriorly colored or otherwise ornamentally decorated to improve the outer appearance thereof.

Outer covering 12 is progressively increased in depth from one to the other end thereof, and said other end is adapted to be normally closed by a slide fastener means 14 extending continuously through the full transverse dimension of the covering, and extending along opposite sides of the covering to a location short of the midlength point thereof. Thus, on opening of the fastener means 14, the covering can be fully opened at one end and along a portion of the sides thereof adjacent said end, to permit insertion on removal of the interior parts of the device.

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A pair of transversely extending pockets 16 (Figs. 2 and 3) are secured to the inner surfaces of the top and bottom portions of the covering, adjacent the ends of the side fastener means 14, and are stitched to the covering by transverse and longitudinally extending lines of stitching 18, 20 respectively. The pockets open in the direction of the larger end of the covering, and are disposed adjacent a conventional motor 22 extending through almost the full transverse dimension of the covering, said motor being of the A. C. magnetic vibrator type.

The motor is loosely enclosed within a stiff motor cover or holder 24 of electrically insulative material such as fiber. This extends the full length of the motor, and is of C-shaped cross section, with the respective top and bottom portions of said motor cover being loosely engaged in the pockets 16.

Motor 22, medially between its ends, has a short projection 26 extending longitudinally and centrally of the device toward the smaller end thereof, said projection being integrally formed with a threaded, reduced axial extension 28.

A vibratory frame generally designated 30 is provided at one end with a short arm or stem 32 having an axial, threaded recess receiving the extension 28. The arm 32 is fixedly secured to the midlength portion of a crossbar 34 (see Fig. 6), extending in parallelism with the motor, and terminating at its ends short distances inwardly from the respective side walls of the outer covering.

Secured to the crossbar 34, adjacent the top and bottom edges thereof, are large, rectangular, planiform grids. These are disposed in parallel planes normal to the length of the crossbar 34. The grids fill a substantial portion of the interior of the outer covering as shown in Fig. 5, extending at their free ends to locations spaced inwardly a short distance from the smaller end of the covering.

The grids are identically formed, with the upper grid including uniformly spaced, parallel, straight longitudinal rods 36. To the undersides of the rods 36 there are welded or otherwise secured cross rods 38, also spaced apart uniformly. The cross rods 38 are extended in parallel relation to the crossbar 34.

The lower grid includes longitudinal members 40 aligned with members 36, and cross rods 42 secured to members 40 in the same manner as the rods 38 are secured to the rods 36.

Removably covering the respective grids are rectangular envelopes 44, 46 of canvas or similar material, open at one end to receive the grids and enclosing the grids for substantially the full areas of said grids.

An electric cord 48 extends from the motor 22, through an opening formed in the adjacent side wall of the outer covering 12, and intermediate its ends is provided with a switch 50. At its free end, the cord is provided with an electric plug 52 capable of being engaged in a conventional receptacle, not shown.

The construction illustrated and described defines between the respective grids a space 54 between the inner, confronting faces of the envelopes 44, 46. The space 54 is open at its sides and also is open at the end adjacent the smaller end of the outer covering, and by reason of the construction illustrated, whenever one desires to insert a conventional heating pad, not shown, in the outer covering, said heating pad can be inserted in the space 54 and will be lightly clamped by the grids of the frame 30.

In use of the device, and assuming that it is to be used as a vibrator only, on energizing of the motor the frame 30 will be vibrated, causing corresponding vibration of the grids so that over the full area of the article there is a light vibratory action, adapted to have desirable effects on the particular area of the body to which it is applied.



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When the device is to be used as a combination vibrator and heating pad, one opens the outer covering, and removes the motor and the motor holder 24. This of course results in withdrawal of the frame and the envelopes 44, 46. The heating pad is now inserted between the grids, and the device is reinserted. The conducting cord for the heating pad may pass out through the end of the opening in the covering. Now, with both the motor and the heating pad energized through power supplied through their respective cords, a combination vibratory and heating action is obtained. The entire heating pad is now vibrated, due to its being lightly engaged between the vibratory grids. As will be appreciated, the vibratory action is not impaired by insertion of the heating pad, said vibratory action occurring over substantially the full area of the device with the heat also being transmitted over a substantial part of the area of the apparatus.

While I have illustrated and described the preferred embodiment of my invention, it is to be understood that I do not limit myself to the precise construction herein disclosed and that various changes and modifications may be made within the scope of the invention as defined in the appended claims.

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

1. A combined vibrator and heating pad holder, comprising an outer covering operable at one end, a vibratory motor removably mounted therein, means to hold the motor in place within the covering, a flat frame connected to the motor and radiating centrally therefrom for vibration thereby and removably supporting a heating pad, and envelope means enclosing the frame, said motor holding means including a holder loosely receiving the motor and having ends extending adjacent opposite walls of the covering, said holder means further including pocket members on the covering receiving said ends of the holder, said pocket members each extending substantially the full distance across the width of the covering and being secured to the inner surface of said opposite walls of the covering, the pocket members opening toward said open end of the covering.

2. A combined vibrator and heating pad holder, comprising an outer cover operable at one end, a vibratory motor removably mounted therein, means to hold the motor in place within the covering, a flat frame connected to the motor and radiating centrally therefrom for vibration thereby and removably supporting a heating pad, and envelope means enclosing the frame, said motor holding means including a holder loosely receiving the motor and having ends extending adjacent opposite walls of the covering, said holder means further including pocket members on the covering receiving said ends of the holder, said pocket members each extending substantially the full distance across the width of the covering and being secured to the inner surface of said opposite walls of the covering, the pocket members open-

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ing toward said open end of the covering, the holder being of generally C-shaped cross section with the motor loosely engaging against the bight part thereof and with said ends of the holder being formed as legs loosely engaging in the respective pockets.

3. A combined vibrator and heating pad holder, comprising an outer covering, a vibratory motor therein, means to hold the motor in place within the covering, a frame connected to the motor for vibration thereby and supporting a heating pad, and envelope means enclosing the frame, said frame being of generally rectangular configuration and including a space over substantially its full area for receiving said heating pad, the frame including a crossbar extending transversely of the covering and grids secured at one end to the crossbar and terminating at their other ends in closely spaced relation to the other end of the covering.

4. A combined vibrator and heating pad holder, comprising an outer covering, a vibratory motor therein, means to hold the motor in place within the covering, a frame connected to the motor for vibration thereby and supporting a heating pad, and envelope means enclosing the frame, said frame being of generally rectangular configuration and including a space over substantially its full area for receiving said heating pad, the frame including a crossbar extending transversely of the covering and grids secured at one end to the crossbar and terminating at their other ends in closely spaced relation to the other end of the covering, said grids being of an open mesh construction and extending in parallel planes.

5. A combined vibrator and heating pad motor, comprising an outer covering, a vibratory motor therein, means to hold the motor in place within the covering, a frame connected to the motor for vibration thereby and supporting a heating pad, and envelope means enclosing the frame, said frame being of generally rectangular configuration and including a space over substantially its full area for receiving said heating pad, the frame including a crossbar extending transversely of the covering and grids secured at one end to the crossbar and terminating at their other ends in closely spaced relation to the other end of the covering, said grids being of an open mesh construction and extending in parallel planes, said envelope means comprising fabric envelopes enclosing the respective grids over substantially their full areas.

References Cited in the file of this patent

UNITED STATES PATENTS

2,097,455	Fisher	Nov. 2, 1937
2,345,438	Tompkins	Mar. 28, 1944
2,779,328	Grossi	Jan. 29, 1957
2,800,897	Ross	July 30, 1957

FOREIGN PATENTS

489,471	Canada	Jan. 6, 1953
1,057,283	France	Mar. 8, 1954
62,167	France	June 10, 1955