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F. SCHWAB
ARRANGEMENT FOR APPLYING CHEMICALS AND
MINERALS FOR THERAPEUTICAL PURPOSES
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2,539,036

Fig. 1

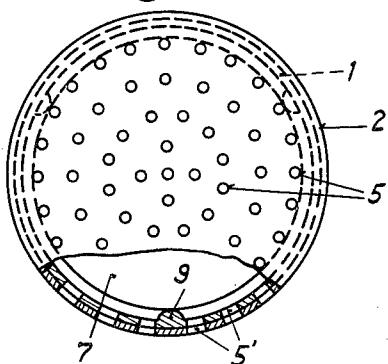


Fig. 2

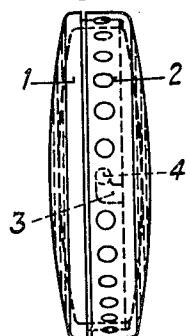


Fig. 4

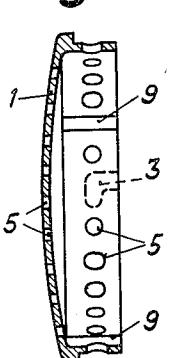


Fig. 3

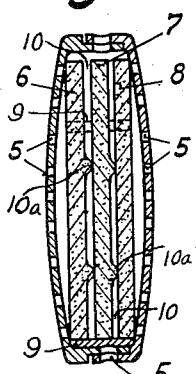


Fig. 5

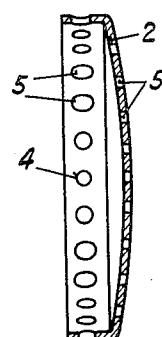


Fig. 6

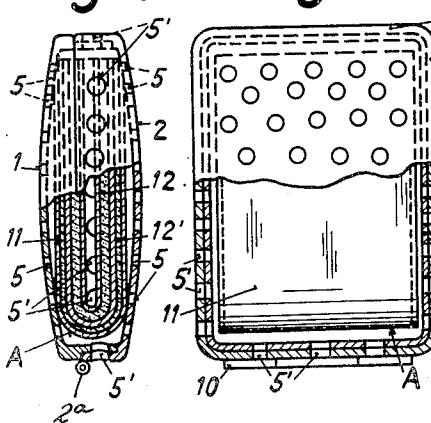


Fig. 7

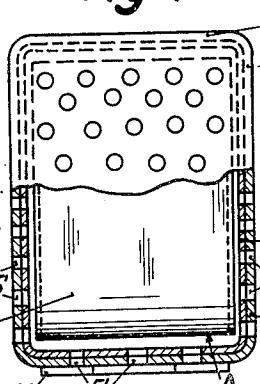


Fig. 8

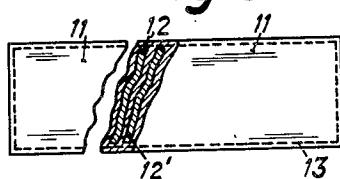


Fig. 9

UNITED STATES PATENT OFFICE

2,539,036

ARRANGEMENT FOR APPLYING CHEMICALS
AND MINERALS FOR THERAPEUTICAL
PURPOSES

Fritz Schwab, Lausanne, Switzerland

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In Switzerland April 25, 1946

1 Claim. (Cl. 128—260)

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In the treatment of certain ailments such as rheumatism, varicose veins, gout, sciatica, neuralgia, chronic eczema, etc. it has been the practice to apply bags containing chemicals or minerals, such as sulphur, sodium salt, pulverized copper, radio-active substances, to the skin surface of the patient for the purpose of amelioration and relief of the conditions. These bags were flat and made of cloth which in certain cases were hygroscopic, thus permitting the heat and vapor of the human body to act upon their contents. In action, the gases thus liberated exerted an irritant action upon the skin and thereby aided in the development of the relieving processes; if the bag contained radio-active substances, the rays penetrated through the cloth thus reaching the body to which the bag was applied. The bags were applied to the affected parts of the body for extended periods, and as a result became impaired through presenting an unpleasing appearance.

The present invention is designed for the purpose of carrying out the therapeutical purposes thus indicated, but in such manner as to permit of a more efficient application and service, and avoiding the unpleasing appearance effects which had been set up through extended wear. The result is obtained by the use of a rigid container capable of being readily cleansed, generally flat and arranged to permit access of the heat and vapour from the body to act upon the contents of the container. These contents are in the form of cartridges, preferably in compressed form, of chemical or mineral media, these being generally positioned in such manner as to be separated from each other, and being individually exposed to the air and vapor content of the patient source. Hence the desired reactions will be obtainable similar to those provided for in the prior practice. Since the container itself is readily cleansed, and substitution of cartridges can be provided when needed, the treatment can be continued for extended periods without producing the unpleasant appearance effects.

The drawing exemplifies two embodiments of the object of the present invention:

Fig. 1 is a top view of one embodiment partly sectioned to reveal the interior,

Fig. 2 is a side-view of same,

Fig. 3 is a cross-section,

Fig. 4 is a cross-section of the bottom of the case,

Fig. 5 is a cross-section of the lid of the case,

Fig. 6 is a side-view partly cut away, of a second embodiment,

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Fig. 7 is a top view partly in section,
Fig. 8 is the cartridge stretched out and partly sectioned.

Fig. 9 is another form of cartridge.

5 The first embodiment is a round, flat case for accommodating the chemical or mineral media, consisting of a bottom 1 and lid 2. The case can be made of Bakelite, Celluloid or stainless metal, thus providing a rigid body construction. 10 The side of the case bottom is fitted with two right-angled slots 3, diametrically opposed to one another, as shown in Figures 2 and 4 while the side of the lid is provided with two studs 4 also diametrically opposed to one another only one of 15 which is shown in Figure 2. Slots 3 and studs 4 provide a means of closing the case and locking the lid by placing the latter in position with the studs engaging in the slots and giving it a slight turn, thus producing a bayonet-slot type of connection. Both bottom and lid are slightly convex being provided with vents at 5. The case accommodates cartridges of media in the form of compressed discs. Fig. 3 shows a case containing 3 cartridges 6, 7 and 8 separated from 20 one another by spaces 10. More can be used if necessary, and they may consist of different substances, the first being, for example, sulphur, the second pulverised copper and the third sodium salt. Air can circulate via vents 5 and 25 spaces 10 between discs 6, 7 and 8, which communicate with these vents in such a manner that the air bathes the whole surface of the discs thus enabling vapour from the body to cause the necessary reactions. Spaces 10 between the 30 discs are maintained by means of ribs or protuberances 10a. The inside of the circumference is ribbed at 9 to maintain the discs generally spaced from the wall's of the case.

As soon as the discs of the chemical or mineral 35 media have lost their effect as the result of frequent use they can be changed.

The arrangement described above can be carried in the pocket, and as discs 6, 7 and 8 consist of compressed chemicals or minerals, it is 40 impossible for pieces to fall out.

The lid of the case can be in the form of a screw cap instead of as previously described.

The arrangement described above is not impaired in any way by constant use and remains 45 in perfect condition from a hygienic point of view. The media or discs 6, 7 and 8 should be renewed from time to time. Vents 5 enable a radiation effect to be obtained without losses through absorption should disc 6 or 8 consist of 50 a radio active substance.

In the second embodiment, bottom 1 and lid 2 of the case are rectangular and joined together by hinge 2a attached to one of the ends. The cartridge of media has the form of a rectangular pad 11 of porous cloth permitting the passage of air, with fillings 12 and 12' separated one from the other. As mentioned when describing the first embodiment, the fillings may consist of different media, which may be compressed, pulverised or granulated. As shown in Fig. 9 three fillings 12, 12' and 12'' or more can be placed in the pad. When pad 11 is in the case it is folded over at A.

When the pad is stretched out it has the form of a strip, as shown in Figs. 8 and 9, and may be used in this form, if required, without case 1, 2 should it be necessary to apply it direct to the affected part. When the pad has to be applied under clothing the case must be used.

The other parts designated by reference numbers correspond to similar features described in the first embodiment. Air can circulate via vents 5, 5' in the case and flow via pad 11 inside it through the porous material thus contacting fillings 12, 12' and 12'' and causing the effects previously described. 13 are the seams near the edges of the pads.

While the forms of embodiment of the invention as herein disclosed, constitute a preferred form, it is to be understood that some changes may be made in the arrangement, construction and combination of the various parts of my invention, and it is my intention to cover by my claim such changes as may reasonably be included within the scope thereof.

I claim as my invention:

A curing bag unit comprising a hollow flat

rigid container, the facial and peripheral walls of which are perforated, and a plurality of cartridges of therapeutic media within the container, said cartridges differing from each other as to the media and shaped so as to be spaced from each other and from the perforated walls at least for the main part of their surface to thereby permit circulation of air and vapor relative to the cartridges individually with the circulation induced through such container contact with the human body, said curing bag unit being adapted for application on the outer skin of the human body to make treatment media accessible to the body of the patient for extended periods.

FRITZ SCHWAB.

REFERENCES CITED

The following references are of record in the file of this patent:

FOREIGN PATENTS

Number	Country	Date
14,140	Great Britain	July 21, 1893
427,978	France	June 10, 1911

OTHER REFERENCES

"Practice of Medicine," J. C. Meakins, 3rd edition, 1940, published by C. V. Mosley Co., St. Louis, Mo. (a copy is in Div. 55 of the Patent Office), pp. 840-842, 1098-1100.

"Operative Surgery," W. S. Bickhan, vol. VI (1924) (a copy is in Div. 55 of the Patent Office), pp. 581-583.

"Recent Advances in Allergy," G. W. Bray 35 (1937), 3rd edition, published by P. Blakiston's Son & Co., Philadelphia, Pa., pp. 49, 50, 321, 326, 337, 89, 330, 336.