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## Barber-Surgeons, Nurses, Midwives: Cupping and the "Violet Ray" in the Everyday Practice of Non-Medical Healing Professions

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#### Abstract

This article examines the historical background of a chance find in the attic of a family among whose ancestors were a midwife and a nurse. The objects from the everyday practice of these two women are a set of cupping glasses and a so-called high-frequency radiation device ("violet ray"). The latter has so far been presented in research mainly as a lifestyle product of the first half of the 20th century and its desire for health self-care. The article now shows, based on statements from the practitioners' families, that treatment with cupping glasses as well as with the HFR device was part of (medically prescribed) physical therapy until the 1950s. It becomes apparent that the boundaries between the treatment practices of non-medical healers such as midwives, nurses and barber-surgeons cannot be sharply drawn. For future research on objects in the history of medicine, this result provides the methodological impetus not to hastily make restrictive classifications of individual healing professions and their respective practices when working with sources.

Keywords: Material Culture Studies, Cupping Glass, Violet Ray, Physical Therapy, Midwifery, Barber-Surgeon

#### 1 A Chance Find

As a result of the curfews and contact and quarantine restrictions that came with the Corona pandemic, many people in 2020 suddenly discovered basements, attics, storerooms and other hiding places of long discarded and then forgotten everyday objects in their private living environment as a field of activity: people used the time to "clean out". In the Bavarian Spessart region, such a clean-up operation in an attic brought to light a worn-out old suitcase and a container with glass objects. Both have now been donated to the Medical History Collections at the Institute for the History of Medicine, University of Würzburg.





Fig. 1 Exterior view of the case

Fig. 2 Interior view of the case



The suitcase is made of light wood, covered on the front and back with dark brown paper embossed in a crocodile skin look and stabilised on the narrow surfaces and edges with sturdy textile adhesive tape of the same look. With an edge length of 41x27x11cm and a weight of only three kilograms, it could be described as "light luggage", since its appearance with the brightly rubbed, ribbed plastic handle and the nickel-plated, now greenishly tarnished small snap locks actually corresponds to small overnight luggage from the first half of the 20th century. Since it bears no labelling, only a look inside reveals that it is a so-called "Hochfrequenzstrahlapparat" (High-frequency radiation (HFR) device), in this particular case one made by Velmag (Vereinigte Fabriken elektrischer Messinstrumente und Apparate, GmbH) with the product name "Frequenta". In the case, which is lined with dark purple velvet, there are a removable generator insert with two black cloth cables (to which a two-pole ceramic plug and a handle with a collet for inserting the electrodes, made of black Bakelite, are attached) and a total of 14 electrodes of various shapes stored in clips. An illustrated advertising catalogue of the company allows the identification of the radiator as an extended version of the Model G of 1928.<sup>1</sup>

The separately stored jars are 19 small cupping glasses equally of 4 cm diameter, six of them made of thick green glass, eight of thinner bluish glass and four of white glass. In addition, there is a single piece made of particularly thick glass with air bubbles included. All of these show clear ridges as a sign of industrial production, the ones made of white glass also have small circular embossings on the top. This could indicate that the same model was sold with a hole and a rubber ball attached to create the vacuum needed for cupping.<sup>2</sup> There is no manufacturer's name to be found and a dating is only possible via the lifetime of the user.



Fig. 3: Cupping glasses, set up in pairs

Fig. 4: Cupping glasses, detail

HFR devices were produced in large numbers from the 1920s onwards and are still regularly offered to medical history museums and collections today.<sup>3</sup> However, the history of these objects can rarely be reconstructed. The devices were explicitly manufactured for home use

<sup>&</sup>lt;sup>1</sup> http://www.spickelmir.de/index.php/downloads?task=download.send&id=26&catid=6&m=0 (08.07.2021). Velmag published this advertising catalogue in 1929 with four models (A,D,E,G) of different equipment. The G case contains the most extensive equipment (20 electrodes). Since the catalogue also mentions a interference-free "1929 model", Velmag may have used the original 1928 catalogue to advertise later models as well.

<sup>&</sup>lt;sup>2</sup> Nolte 2020, p. 135.

<sup>&</sup>lt;sup>3</sup> Eßler 2020, pp. 156–158.



by the medical layman<sup>4</sup> – the leather look, deliberately kept neutral on the outside, and the dark velvet interior of our case refer to this private, middle-class sphere. Like many other things that eventually ended up in the attic or cellar, HFR devices belonged to those everyday objects the use of which was not perceived as extraordinary in the families and thus hardly ever discussed across generations. Cupping glasses, on the other hand, are not usually found in private households, and their connection to the HFR device seems puzzling. As will be seen in the following, this unusual collection of finds points to the history of outpatient nursing care and other non-medical healing professions in the 20th century.

#### 2 The History of the Objects

The provenance story first tells of the professional activity of the grandmother as well as the mother of the object donor.<sup>5</sup> Her grandmother, Bronisława Sloma, was born in 1902 in Pyskowice (then Peiskretscham) in Silesia. She trained as a midwife; as there was a provincial midwifery school in nearby Opole from the first half of the 19th century until 1933, it is likely that she was trained here. She first worked as a midwife in her hometown,<sup>6</sup> then in Hamburg after moving to West Germany in 1958. A photo in the family album shows Bronisława Sloma in her uniform. Regarding the cupping glasses, the family history has it that she also had worked with them. This is an interesting detail because it refers to a practice that probably resulted from the overlap between midwifery and nursing, but which is not documented in the Prussian midwifery textbook with which she herself may have trained. Here it is pointed out that midwives also had to master the basics of nursing ("It is not her task [i.e. of the midwife, author's note] to exercise the profession of a nurse. [...] Nevertheless, as a helper of pregnant women, women in labour, women in childbed and newborns, it is necessary for her to know the most important rules of nursing")<sup>7</sup>. The midwifery textbook, however, limits the "special assistance services" of nursing to catheterisation, injections, enemas, rinses, baths, cooling and warming compresses and the preparation of tea. Drip anaesthesia as an assistance service is treated separately.<sup>8</sup> If, on the other hand, we consult the Prussian midwifery textbook of 1892, we find "cupping and leeching" in the chapter on nursing (after the cooling and warming compresses at §336). These are nursing activities, we learn, that may only be carried out "upon prescription of a doctor".9 These practices which were still valid in the 1890s seem to refer back to therapeutic concepts of humoral pathology (here: blood extraction as both a cleansing and cooling therapy). At the same time, the commemorative

<sup>&</sup>lt;sup>4</sup> Eßler 2020, p. 162.

<sup>&</sup>lt;sup>5</sup> I would like to explicitly thank the object donor Maria Kostyszyn, who has agreed to provide her recollection of the objects as well as a photograph of her grandmother for this article. The cited information was communicated by email in May 2021 and is archived together with the objects in the collection (Medical History Collections, Sign. 2021\_1\_ Kostyszyn).

<sup>&</sup>lt;sup>6</sup> The radius of her midwifery work can no longer be determined, but she seems (also?) to have cared for the surrounding villages, because family history associates her with the designation "village midwife" and knows as a handed-down special feature that she was fetched by carriage for individual assignments.

<sup>&</sup>lt;sup>7</sup> Hammerschlag/Langstein/Ostermann 1928, p. 45. In the preface of this fifth edition used here, it is emphasised that the chapter on nursing has not been changed from the previous edition of 1920, with which B.S. may have been trained.

<sup>&</sup>lt;sup>8</sup> Hammerschlag/Langstein/Ostermann 1928, pp. 68–75.

<sup>&</sup>lt;sup>9</sup> This restriction documents the increasing control of non-medical healers by physicians in the course of the 19th century: Unterkircher/Ritzmann 2016, esp. pp. 244–245; before, cupping had been part of the practice of barber-surgeons for centuries: Schlegelmilch 2021, pp. 244–247.



publication "Deutsches Gesundheitswesen" (German Health Care) from 1890 documents that at the end of the 19th century, health care for the rural population was still provided by nonmedical healers based on a division of labour: "Midwives are also authorised to perform minor surgery, clystering, cupping, catheterisation, on women."<sup>10</sup> The cupping glasses and the story about Bronisława Sloma that has been passed down with them thus document a practice that, during the period of her own professional activity, obviously was still pursued as a part of nursing care by midwives, but which already had disappeared from the midwifery textbook of the 1920s.



Fig. 5: Bronisława Sloma in her midwifery uniform

Bronisława Sloma became a mother on 5 February 1922. Her daughter Brigitte learned the profession of a nurse as a young woman in the municipal hospital of Gliwice (then Gleiwitz), where she also worked after her training. When her daughter Maria (the object donor) was born in 1945, she had to give up working in the hospital and began a job as a medical assistant in the Gliwice medical practice of a Dr. Zieliński, in whose immediate neighbourhood she also lived. She accompanied him on house calls, but also cared for patients on her own as an outpatient nurse, changing dressings, giving injections, cupping and treating them with the HFR device. When the whole family moved to West Germany in 1958, the device and the cupping glasses accompanied them.<sup>11</sup> When Maria then settled in Mespelbrunn in the Bavarian Spessart, her mother Brigitte Keil moved there with her, again carrying the HFR device and the cupping glasses in her luggage. Family history knows that Brigitte Keil, who died in 2009, treated people in her immediate vicinity with her cupping glasses until the end of the 1980s.

<sup>&</sup>lt;sup>10</sup> Pistor 1890, p. 167. Cf. on the practice of cupping in 19th century nursing – care or "minor surgery"? – the study by Nolte 2020, pp. 132–135.

<sup>&</sup>lt;sup>11</sup> There is similar evidence that HFR devices in their handy suitcases accompanied families on their moves, even in wartime situations: Eßler 2020, p. 171.



### 3 Cupping Glass and HFR Device – Hybrid Objects?

In her study on objects of nursing care, Karen Nolte has coined the term "hybrid objects" following Margarete Sandelowski's wording of "hybrid practices".<sup>12</sup> Nolte understands this to mean objects the handling of which cannot be assigned to a specific professional activity, but which blur the boundaries of medical, nursing and lay medical action. Methodologically this term is very valuable as it warns against unconsciously limiting oneself in research by a hasty classification of historical objects. The example of midwife Sloma has already shown that. Her cupping activity is attested by oral tradition and thus demands an explanation; without this story linked to the objects, our research question would not have existed at all, since even profound knowledge of the sources on midwifery in the 20th century would not have led to the connection between midwifery and cupping. The "shifting of boundaries" here is at least as interesting as that in the case of the HFR device, which has not been perceived as an object of care until now, probably because researchers always placed it in discourses that were dominated by a medical perspective. Again, it is the oral tradition that overturns this classification.

The German Wikipedia article "Violet Wand"<sup>13</sup>, after briefly describing the technical, chronological and usage-related classification, immediately provides the information that "since the 1990s [...] the devices have also been used for erotic electrostimulation".<sup>14</sup> The link to the more recent English-language version of the article activates an automatic redirection to the page "Erotic electrostimulation", where the original article "Violet Wand" exists only as a short subsection of five sentences, which is even stripped of any historical information.<sup>15</sup> This telling shift of interest corresponds to the popular scientific view of HFR devices. They are readily presented in a slightly arrogant, whiggish perspective and, with winking innuendo to the above-mentioned use, as outdated follies of earlier generations.<sup>16</sup> Medical historical research usually refrains from such evaluations and associations. Nevertheless, even a sound historical contextualisation does not always prevent (unconscious) judgements. In case of the HFR device, this may be mainly due to the fact that two voices dominate the sources and thus have also received most attention in research: on the one hand, the politically motivated polemics of physicians against the "Kurpfuschertum" (quackery), on the other hand, the commercial promotion of the HFR device as a panacea. The figure of Valentin Zeileis who treated hundreds of patients in darkened rooms in Upper Austria at the end of the 1920s with his luminous "diagnostic rod" and with high-frequency devices that produced large arcs of light, was a true crystallisation figure among the "miracle healers" and "quack doctors" with

<sup>&</sup>lt;sup>12</sup> Nolte 2020, p. 130.

<sup>&</sup>lt;sup>13</sup> The name "violet wand" is derived from the optical effect of the gas in the glass electrodes which glows when they are plugged into the collet of the handle and thus energised, as well as from the electrical discharge that occurs via the glass electrodes in coloured flashes and that also releases ozone. There are various videos online that show an HFR device in use and thus also reproduce the specific noise that the lightning discharge (fulguration) produces; see e.g. https://www.youtube.com/watch?v=rZ5HiCZsIUA (08.05.2021).

<sup>&</sup>lt;sup>14</sup> https://de.wikipedia.org/wiki/Violet\_Wand (version 6 December 2020, 1:21 a.m.).

<sup>&</sup>lt;sup>15</sup> https://en.wikipedia.org/wiki/Erotic\_electrostimulation#Violet\_wands (version 1 April 2020, 12:25 p.m.).

<sup>&</sup>lt;sup>16</sup> An example is provided by the book by Frank Patalong, which already has the innuendo in its (salespromoting) title ("The Victorian Vibrator. Foolish to deadly inventions from the age of technology"); Patalong reinterprets most of his historical sources on the basis of this basic narrative, e.g. the HFR device "Frequenta": Patalong 2012, pp. 182–186.



whom the medical profession engaged in constant skirmishes during the "medical crisis" of the time.<sup>17</sup> The voices of the doctors, on the other hand, who (partly from the experience of their own practice) defended the HFR devices as a therapy that should be taken seriously, were paid little attention - both at their time and in medical historical research since then. At the same time, there still are many brochures and instructions for HFR devices preserved today, leaflets that were meant back then to make customers aware of the home use of these devices, which were covered by lucrative patents. The unspecific variety of ailments for which relief is described here, as well as the large number of quoted "satisfied" users, arouses doubt but this should not exceed the level that one should apply to these sources in their capacity as advertisements anyway. It is striking that Henrik Eßler, who was the first to take a closer look on the HFR device, obviously could not avoid the temptation to take the point of view of (the majority of) the contemporary medical profession with regard to *Kurpfuschertum* and patients easily falling for suggestions. He addresses the "alleged effect" of the devices and puts forward the thesis that the audiovisual stimuli they emitted "convinced people of the promised healing effect". When he speaks of "darkened rooms" and "optical spectacle" and, last but not least, emphasises "the mystical overall appearance" of the treatment and its "suggestive effect", this choice of words sounds like an echo of the Zeileis conflicts.<sup>18</sup> When such a determination has been made in advance, the voices of those treated – whether those of the advertising material or other potential sources – cannot but serve as evidence of uncritical good faith.

Against this background, the oral tradition on the devices is particularly valuable as a foil for contrast. One such report, which does not directly refer to our object but is interesting with regard to the "hybrid" nature of such devices, comes from the son of the last barber-surgeon in the Franconian town of Hagenbüchach near Nuremberg.<sup>19</sup> Heinz Wurzer speaks of his father's work in the post-war period in a nursing home run by Deaconesses:

442 Eyewitness: Uh, yes, absolutely, my father was a caretaker in the jakoberhaus, uh that was

443 an old, an old people's home of the inner mission and therefore with the doctor baschke

444 together, he has treated many people inside, with his high frequency for

445 nerve pain and also for such slight things, he spoke about it again and again,

446 that he has done, who knows, dental treatments, or skin treatments and so on.

447 further {Reporter: in Nuremberg?} no no in hagenbüchach, in this jakoberhaus, there was the

<sup>&</sup>lt;sup>17</sup> Körner 2012, pp. 41–57.

<sup>&</sup>lt;sup>18</sup> Eßler 2020, p. 159; also Löffelbein 2020, pp. 191–192, who discusses the "surplus of meaning" of the devices, taking the same line.

<sup>&</sup>lt;sup>19</sup> The HFR device of the barber-surgeon Karl Wurzer is shown until December 2021 in the exhibition "Schwitzbaden, Schröpfen und Kurieren – das Baderwesen in Franken seit dem Spätmittelalter" ("Sweating, Cupping and Cure – Bathhouses in Franconia since the Late Middle Ages") of the Franconian Open Air Museum at Bad Windsheim. I would like to thank Dr Susanne Grosser (research assistant) and her colleague Ralf Rossmeissl (keeper of the museum archive), who prepared the exhibition, for providing me with the complete interview (transcribed by Felix Schmieder) from which the following quotations and information are taken. The interview with Heinz Wurzer (born 10.10.1939 in Hagenbüchach) was conducted by Ralf Rossmeissl on 19.08.2019; the quotations used here are reproduced according to the form of the working transcript.



448 old people's home of the inner mission and there he was caretaker #00:30:47-2# 449 Reporter: and he worked together with the doctor? #00:30:49-0#

450 Witness: Yes, but not *with* each other, but the doctor said, Listen, you can do that.

451 or vice versa, that he had no – or the sister theodorlinde,

452 I still know today, oh my, huge sister, she said, Karl, you can do that yourself too.

453 when someone has had slight things somehow, but I was never there, but

454 he treated a lot in the old people's homes #00:31:16-5#

455 Reporter: so he did continue his barber-surgeons profession after all #00:31:18-8# 456 Eyewitness: continued, well, that was also right after the war [...].



Fig. 6: The comb electrode named by the donor (detail)

Karl Wurzer, born in 1902 and trained as a hairdresser and licensed barber-surgeon, had practised in the back room of his barbershop until it was destroyed by a bomb during the Second World War, and also made house calls by bicycle in the surrounding five villages. He performed phlebotomies (especially for high blood pressure) and often treated furunculosis, which his son remembers particularly well because he had to hold the pus bowls as a child. Even then, the barber-surgeon supplemented this practice of minor surgery with treatment with the HFR device ("he then also treated nerve damage, pain with a high frequency"). After the destruction of the shop, Wurzer worked in the nursing home mentioned above, and here, too, an HFR device was used to treat "slight things": Skin and dental treatments, plus "nerve pain" again. Interestingly, the order for these treatments was given to him directly by a doctor or delegated to him by the nurse in the nursing home, Sister Theodorlinde. The boundaries between barber-surgeons' and nurses' activities are blurred here. However, the fact that the HFR treatment was indeed a nursing activity is confirmed by a handwritten note that the object donor enclosed with our HFR device: "I leave you this electrical appliance? Name (?). My mother (a nurse) used it regularly until 1958 during house calls with a doctor in Silesia Gleiwitz. Used for joint pain, headaches (a comb is included)." As with Wurzer, we find the treatment of pain with the device, as well as the doctor's order in this regard. The explicit mention of the comb-



electrode for the relief of headaches, like the cupping glasses, again suggests potential overlaps of the nursing activity with that of hairdressers/barber-surgeons.<sup>20</sup>

#### 4 Cupping and "Radiating" as a Part of Nursing Care

Henrik Eßler rightly points out that it is often difficult to make objects without a history of transmission "speak".<sup>21</sup> Would our object now be just as mute without its lore? As already mentioned, its generator insert can be removed from the case. There is a small fold-out triangular eyelet on the back of the insert, as is common on picture frames, so that the HFR device could obviously also be hung from a hook on the wall. Furthermore, there is attached to the insert a curved wire frame that can be folded forward at a right angle and the bulge of which is shaped precisely as to use it as a shelf for the handle into which the various electrodes are put.



Fig. 7: The generator insert with the handle in place

The case itself could be stored inconspicuously on the cupboard, under the bed or in other storage spaces like any other luggage in the context of a private household. But the semi-static set-up – with the generator suspended, the handle placed on it and a storage table (required to put the case on when taking out the electrodes) – seems a rather unusual accessory for a private living space, especially in times when homes were not as lavishly equipped with power sockets as they are today. In the case of such devices, there sometimes is evidence of their origin from doctors' surgeries or hospitals, even if directly related sources otherwise are sparse.<sup>22</sup> Another HFR device in the Würzburg collection – a much simpler model from the Radiolux company with only four electrodes – also comes from the surgery of a general

<sup>&</sup>lt;sup>20</sup> The derivation of the hairdresser's trade from that of the barber-surgeon is shown by Stolz in her extensive monograph "Die Handwerke des Körpers" (1992). She places the activity of the barber-surgeon in the hygiene discourse of the 19th and early 20th century (washing of body and hair) as well as in that of medical care (barber-surgeons as "healer servants" of the doctors): pp. 273–279. Regarding the sphere of activity of these "healer servants", who were even supposed to be proficient in providing emergency aid during childbirth, there is an automatic overlap with the competences of nurses and midwives, as demonstrated by the objects described here.

<sup>&</sup>lt;sup>21</sup> Eßler 2020, p. 178.

<sup>&</sup>lt;sup>22</sup> Eßler 2020, p. 172, refers to the provenance from doctors' surgeries and "physiotherapy practices".



practitioner.<sup>23</sup> Here, or in a hospital where treatments took place regularly at a fixed location, the stationary installation seems to make more sense. In fact, the advertising catalogues often mention not only the treating layperson, but also the doctor, and not only as an addressee, but also among the "satisfied voices".<sup>24</sup> If we do not dismiss this as a purely advertising-specific ingredient but follow the trail into doctors' surgeries and clinics, we quickly come across extensive bibliographies on clinical research in the textbooks on electrotherapy.



Fig. 8: Depiction of a diathermy department with large device supervised by nursing staff

They prove that clinical experience with high-frequency therapy was discussed in detail and quite affirmatively by many different medical specialities since the early years of the 20th century. A more general approach of stabilising the autonomic nervous system by means of this therapy and thus also the ability of treating chronical diseases<sup>25</sup> stands alongside more specific treatments. The gynaecologist Carl Joseph Gauss from Würzburg, for example, treated patients with gonorrhoea with the help of the small apparatus "Inviktus"[!] and an electrode to be inserted into the urethra and cervix.<sup>26</sup> The Viennese doctor Josef Kowarschik summarised the indications for the treatment in his textbook on electrotherapy: "various nerve and muscle pains" (nervous headache, intercostal neuralgia, meralgia, tarsalgia, achillodynia), as well as heart pain or pressure and high blood pressure (i.e. tonus-related symptoms), itchy skin diseases and poorly healing wounds.<sup>27</sup> It is not only in Kowarschik's work that we read that the

<sup>&</sup>lt;sup>23</sup> Institute for the History of Medicine (University of Würzburg), Medical History Collections, Sign. 2018-06\_Zahn\_01.

<sup>&</sup>lt;sup>24</sup> The instruction book written by four doctors which Velmag published in 1928 separately from the advertising catalogue also states: "Today's modern, handy high-frequency radiation device has proven itself so excellently as a helper for doctors and families that it can really do without exaggerated and therefore reprehensible advertising. The present book is intended to serve the doctor and layman in the same way." (Bauer/Faulhaber/Kober/Krapf 1928, p. 6). Among the letters of thanks in the accompanying catalogue (see note 1, there pp. 6–7) are those of a practising neurologist and two dentists, as well as that of a company health insurance fund, which confirms "the best successes with dry lichen, rheumatism, sciatica [...]".

<sup>&</sup>lt;sup>25</sup> Grandauer 1930.

<sup>&</sup>lt;sup>26</sup> Gauss 1917, p. 1019. Gauss' example clearly shows that it was clinicians who developed specially shaped electrodes. He attributed a bactericidal effect to his electrode, but attributed it to the light.

<sup>&</sup>lt;sup>27</sup> Kowarschik 1929, pp. 204–205.



clinicians did not actually know why the therapy worked ("Here we are faced with a riddle"). Interestingly, with reference to "ancient empirical experience and earlier times", the treatment is understood, like vesicants and blister plasters, as a therapeutic skin stimulus and thus part of physical therapy.<sup>28</sup> This puts it in the same treatment category as cupping, for which Karen Nolte has already worked out that it was used with the justification of just such a stimulating effect and the resulting promotion of blood circulation and detoxification.<sup>29</sup>



Fig. 9: Treatment with a roller electrode connected to a large device



Fig. 10: Velmag Frequenta – handle with attached roller electrode

Physical therapy, on the other hand, was an area specific to nursing, and that the HFR devices were used here, just like the cupping glasses, can be seen in nursing textbooks of the time. Among the physical therapies, it is heat treatment by diathermy to which the devices are usually assigned. Illustrations in these books, however, mostly show large devices as they were found in clinics and hospitals. However, in his chapter on "treatment with alternating current of higher frequency", Kowarschik also mentions "small high-frequency devices" and points out

<sup>&</sup>lt;sup>28</sup> Kowarschik 1929, p. 204 (also previous quote).

<sup>&</sup>lt;sup>29</sup> Nolte 2020, p. 134; also Kowarschik 1948, p. 238: "Skin stimuli have been administered as revulsants and derivatives with the aid of cupping, glow irons, acupuncture, vesicants, pustulants and other means for thousands of years with the best of success".



the lower acquisition costs compared to a large inductor or alternating current generator. These small devices were intended exclusively for local treatment with electrodes (while the large devices also allowed whole-body treatment, e.g. in a so-called capacitor bed) and, according to Kowarschik, sufficient for this ("they meet most requirements"). He mentions the HFR devices Radiolux (like the one in the Würzburg collection, see above), Radiostat and Radiopan.<sup>30</sup> The instructions for diathermy treatment in the nursing textbooks thus usually refer to an application in the hospital context (the place of nursing training), where the large devices were located. Nurses were admonished that the technique of "electrifying" was "not very easy to learn, however, and must be closely supervised by the doctor.<sup>131</sup> The small devices not only had the advantage that they could be used wherever electricity was available, but because they were less powerful, they also did not pose any risk of injury, which is why they could be applied as well in outpatient care as in the private sphere.

#### 5 Summary

The HFR device as a hybrid object opens up the view in many directions: that of medicine, nursing and so-called lay treatment.<sup>32</sup> From a medical point of view, it fulfilled partly the same function as cupping (skin stimulation) or bloodletting (reduction of high blood pressure), both originally practices first of the barber-surgeons, then also of the nurses (and thus partly also of midwives). Its most important field of application, however, was probably the treatment of pain which had become an essential field of physical therapy, not least due to the war injuries of the two world wars.<sup>33</sup> To integrate the results presented here into larger discourses of selftreatment, technology euphoria and the "crisis of medicine" broadens the perspective, but one must not continue to ignore the fact that the device obviously was part of everyday treatment for many decades, not only in private households, but in doctors' practices and hospitals as well. In the 1950s, the HFR device gradually disappeared from the medical discussion and then also from sales. One reason for this, as Eßler notes, may indeed have been the advent of antibiotics; but not because this increased a "trust in orthodox medicine" and therefore the lifestyle product HFR device lost its "fashionable character",<sup>34</sup> but because the antibacterial effect of the ozone released by the devices during surface treatment (e.g. of skin diseases) or inhalation application (for tuberculosis, etc.) lost its significance as a therapeutic agent. It should also not be underestimated how difficult medicine still finds it today to deal with treatments that have empirically verifiable healing successes, but for which it is not possible to formulate a theory from within medicine's own model of thought.<sup>35</sup>

<sup>&</sup>lt;sup>30</sup> Kowarschik 1929, pp. 82–83.

<sup>&</sup>lt;sup>31</sup> Fischer/Groß/Krick 1949, p. 198; identical text still in the 6th edition of 1957, p. 258.

<sup>&</sup>lt;sup>32</sup> This term often includes not only private individuals but also the barber-surgeons, although they were subject to state control in the form of official examinations.

<sup>&</sup>lt;sup>33</sup> Kowarschik 1948, p. IV.

<sup>&</sup>lt;sup>34</sup> Eßler 2020, p. 177.

<sup>&</sup>lt;sup>35</sup> Contemporary criticism of a subject-specific intellectual laziness can be found, for example, in Hübner 1930, p. 15: "And so the opponents of high-frequency treatment – opponents are actually only those doctors who have not taken the trouble to orient themselves about it – usually only claim that it is irrelevant for the organism. This view is probably based on the analogy that, since the million-fold change in the direction of the current is not felt in the unit of time, an effect on the organs and cells of the body cannot be felt either."



Isabel Atzl has used the example of the clinical thermometer to show how important it is to take a close look at objects that are considered largely banal commodities in the world of medicine.<sup>36</sup> In the case of the HFR device, although complete, comprehensive, multi-part specimens make particularly beautiful exhibits, incomplete cases will be much more interesting for future research. From our case six electrodes are missing. Since the clips still provide a firm hold, it can be assumed that the electrodes were lost or broken when taken out for use. In comparison with the electrode numbers of the original equipment listed in the catalogue, the following are missing: the tongue electrode for the treatment of aphthae etc. in the mouth area; the metal electrode which was used for general whole-body treatment, especially with simultaneous massage in the face and head area; the neck electrode which was used for headaches; the heart electrode; the electrode for wart removal; finally, the most important of the large electrodes, the amplifier electrode which was intended to achieve a special depth effect of the high frequency and was usually used for pain treatment in combination with the surface electrode. Also missing is the rubber ball that was used to pump ozone during inhalation treatment.<sup>37</sup>We might therefore conclude that these treatments were carried out with our HFR device. Strikingly, the electrode for spinal treatment, with its v-shaped head to be placed on the right and left of the spine, is still there. But perhaps nurse Brigitte Keil did not need it at all - for this, she had her cupping glasses in her bag.

#### **Object Sources**

Institute for the History of Medicine [University of Würzburg], Medical History Collections:

- Sign. 2021\_1\_Kostyszyn\_01: HFR device "Frequenta" by the manufacturer Velmag (Vereinigte Fabriken elektrischer Apparate), model G, year of manufacture: approx. 1928.
- Sign. 2021\_2\_ Kostyszyn\_02: Glass cupping glasses, 19 pieces, year of manufacture: before 1958.
- Sign. 2018\_06\_Zahn\_01: HFR device "Radiolux", manufacturer unknown, year of manufacture: before 1928.

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<sup>&</sup>lt;sup>36</sup> Atzl 2017, esp. p. 131 on the manual marking of clinical thermometers.

<sup>&</sup>lt;sup>37</sup> The advertising catalogue (see note 1) gives the numbers of the electrodes contained in the case; they are illustrated and named with their numbers in the instruction book; in addition to the more detailed text section, this book also contains a tabular overview of which electrode should be used for which ailments, for how long, how often and in what way: Bauer/Faulhaber/Kober/Krapf 1928, pp. 110–121.



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