

## The Baking Cure.

BY W. B. NORTHROP.

**B**AKING alive is the latest thing in American medical science. Three large human bakeries are in operation in the United States—in Chicago, Philadelphia, and New York respectively—and the popularity of the new treatment is growing daily.

Bellevue Hospital, New York City, one of the most conservative institutions in America, has in operation a full-sized baking plant, and many doctors of note are prescribing "baking" instead of medicine for certain forms of disease.

Preparations are now under way for establishing a bakery in London, and already correspondence is being interchanged between the inventor of the baking process—Mr. A. V. M. Sprague—and the chiefs of the medical staff of three of London's largest hospitals. As the baking of human beings will be new in England, an advance description of the novel method will prove interesting.

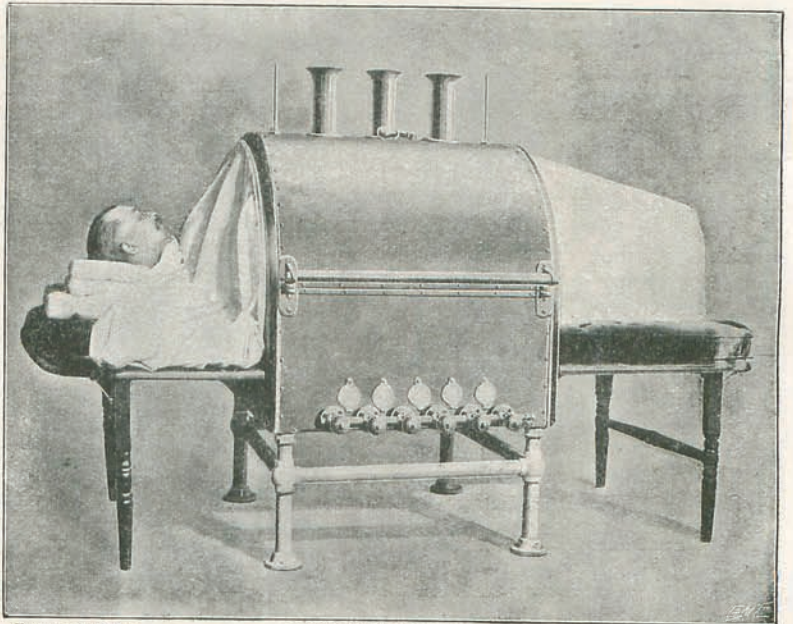
The application of hot air as a therapeutic agent is an old idea. In fact, it is a very old one. All that is claimed by the modern bakers of persons is the manner in which the heat is applied, and very high degrees which can be stood—the baking of persons up to 400deg. Fahr., which is 188deg. above the boiling point of water, being quite possible without danger to the human system.

The use of heat as a remedial agent in lithæmia was known to the Pompeians nineteen hundred years ago. The early Romans, to the number of 25,000 daily, patronized

the luxurious baths of Caracalla, the caldarium—or hot-air chamber—being regarded as an important factor. The persons using these baths were not the poor or the ignorant, but the rich and intelligent classes, who took hot-air treatment lying upon marble slabs covered with rugs or matting. After the "bath" they were rubbed with perfumed oil and massaged. In cases of lithæmia many effective cures were made by the caldarium, and the application of hot air even in those early days was a well-recognized fact.

Everyone knows to-day how effective is heat locally applied in the alleviation of pain. Then we have the homely mustard and flax-seed plasters and the useful heated stove lid as household remedies of unsurpassed efficacy. All these things are merely forms of applying heat, and in a measure form precedents for, if they do not indorse, the modern bakeries of which this article treats.

Recently Doctors Landouzy, Dejerine, and Edouard Chretien, of Paris, have reported marked success with the local application of hot dry air at temperatures varying from 200deg. to 250deg. Fahr. in acute and chronic rheumatism and in gout.

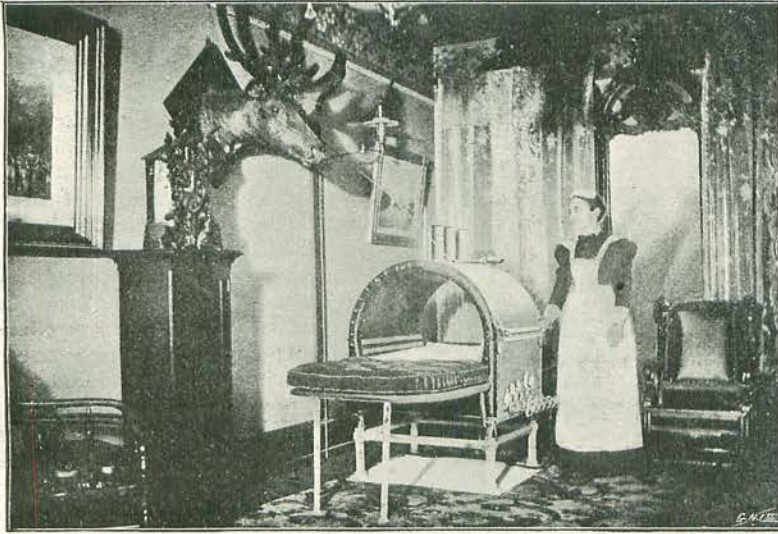


From a Photo. by

A PATIENT BEING BAKED.

[W. B. Northrop.





From a Photo. by] A ROOM AT THE SPRAGUE HOSPITAL, NEW YORK. [W. B. Northrop.

The great difficulty encountered in applying hot air at high temperatures is to avoid actually cooking the flesh of the patient. Ordinarily, when hot air, full of moisture and unventilated, is applied to living human flesh, the danger of burning is imminent. Then, again, it has been found that metal or other substances, which have to be heated in administering the treatment, frequently burn the patient.

Mr. Sprague, of Rochester, New York, after experimenting for a number of years, found that fibrous magnesia would stand high degrees of heat without becoming too hot for the contact of the body of anyone who might be resting upon it. By reposing on a sheet of fibrous magnesia one may take heat up to even 400deg. without suffering great inconvenience.

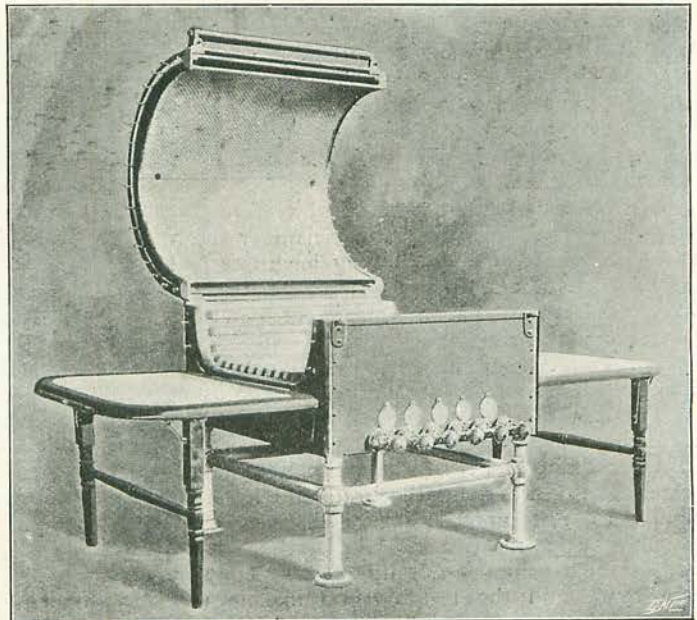
The bake ovens for human beings consist of a series of metal cylinders, three forms of ovens being used—for the entire body, for the arm or lower limbs, and for the local application of heat.

The principles of construction of the body, leg, and arm machines are practically the same, the instruments differing only

by a space connected with three funnels at the top, which act as flues for a series of Bunsen burners underneath the apparatus. These funnels, besides serving the function of flues, carry off the products of combustion while the body is being baked. Within the sheet-steel cylinder is another space one inch and a half in width, which separates it from the third cylinder, which is of brass, and has numerous circular perforations to allow the air that is heated by radiation from the

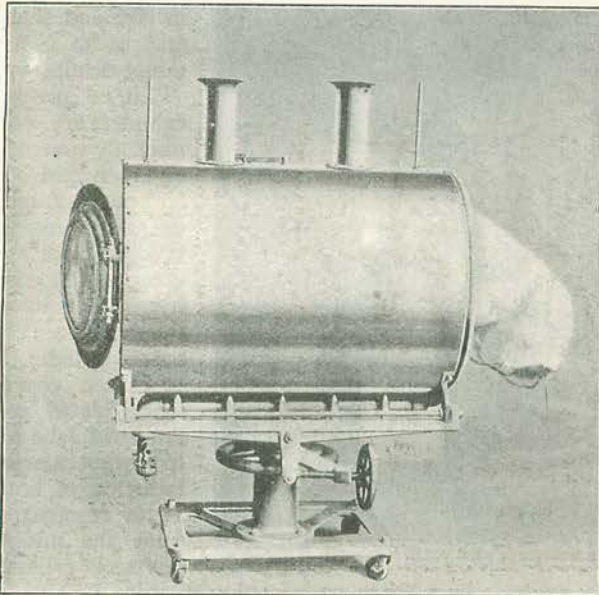
in size and shape and as to a few minor details.

Three metal cylinders are separated by spaces of one inch and one and one-half inch in width respectively, and are open at the ends from the walls of the machine. The outer cylinder is of sheet copper nickel-plated and lined with asbestos to prevent external radiation of heat. It is separated from the middle or steel cylinder



BAKING MACHINE OPEN, SHOWING CIRCULATING JACKET AND PERFORATIONS. From a Photo. by W. B. Northrop.





From a Photo. by] ARM-OVEN—SIDE VIEW. [W. B. Northrop.

hot steel to be sent in tiny jets over the occupant of the oven—the human loaf, so to speak.

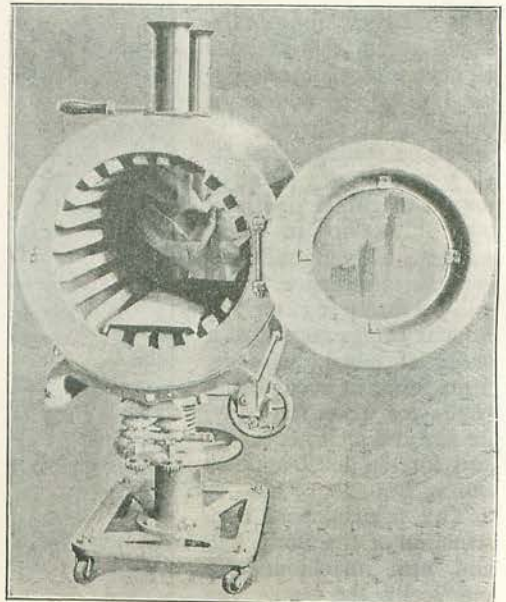
The central space—technically called the circulating jacket—is connected with three tubes situated within the smoke funnels at the top, these tubes allowing the heated air to escape, thus regulating the temperature and the dryness of the atmosphere in the apparatus. At the lower part of the central space—where the body is placed—are numerous tubes running down and between the gas-burners, these tubes sucking up fresh air from the room to replace the heated and moistened atmosphere driven out at the top of the machine. In this way there is constant circulation.

The brass perforated cylinder which forms the lining of the treatment chamber is covered by ribs of cork, running lengthwise, at intervals of one inch apart. These cork ribs prevent the patient's body or hands from coming in contact with the hot cylinder, which would burn the flesh. The patient lies, as has been said, upon a mat of fibrous magnesia, which is separated from the steel below by a layer of asbestos. At either end of the cylinder and level with the bottom are extensions of wood for the head and lower limbs to rest upon. The cylinders are mounted on massive metal legs. The wooden extensions are only on the body apparatus, and the leg and arm machines differ also in having at one end a door of glass and metal, which will allow the nurse to

see the position of the inclosed limb. The machines are so arranged that they may be adjusted at any angle.

Before a patient is baked the temperature, pulse, and respiration are examined, and a thorough physical test is made. If it be found that the condition of the heart or lungs will not justify high degrees of heat a low temperature is ordered, and *vice-versâ*. The patient is wrapped in dry cloths before being placed in the oven; the machine is then closed, the head, however, being left out; the feet are inclosed in heavy canvas which is connected with the machine by air-tight fastenings; the shoulders are also incased in canvas, and rest in a species of vestibule which allows free play to the heated air.

When the heat is first turned on the patient experiences no sensations other than mild warmth. A trained nurse is in constant attendance during the baking process, and the temperature, respiration, and so forth are carefully watched. Up to about 150deg. Fahr. little inconvenience is felt. Then the patient becomes thirsty. Sips of water are given from time to time. The giving of water is thought to add somewhat to the efficacy of the treatment



ARM-OVEN—FRONT VIEW, SHOWING CORK RIBS.  
From a Photo. by W. B. Northrop.



through the gentle reaction which it induces.

When 180deg. have been registered in the central cylinder—the degrees being indicated on a long thermometer—the patient feels thousands of tiny streams of heat impinging against his body. These streams are pouring through the perforations already mentioned as being in the circulating jacket. The lower extremities now become somewhat numb, and the feet feel as if, to use a common expression, they had “gone to sleep.” One seems now to be literally swimming in perspiration. This is given off from the top of the machine in the form of steam, which comes out through the funnels in a continuous stream.

At 200deg. one experiences a dreamy sensation, and from this point up to 280deg. the baking experience is really quite pleasant. Water boils at 212deg. Fahr., and yet at 280deg. Fahr. a human being does not suffer the least inconvenience. This degree of heat—280deg. Fahr.—is the average applied at most of the Sprague machines. It is endured for upwards of an hour.

In certain cases, however, much higher temperatures are required. In some conditions from 350deg. to 400deg. Fahr. are necessary. Heat at these high degrees is not so very pleasant. The body seems to be literally roasting. The blood at 350deg. seems actually to be boiling, and can be felt to be coursing through the veins at racehorse speed. The heart thumps wildly, or else seems to have disappeared altogether. Bags of ice are constantly applied to the head when these degrees of heat are administered. Sips of ice water are given from time to time.

A very remarkable fact in connection with

the baking is that at times the temperature of one's body is actually raised five or six degrees. In cases of fever this is considered a decided advantage, as it brings on the crisis, and the reaction sets in much more rapidly than it otherwise would.

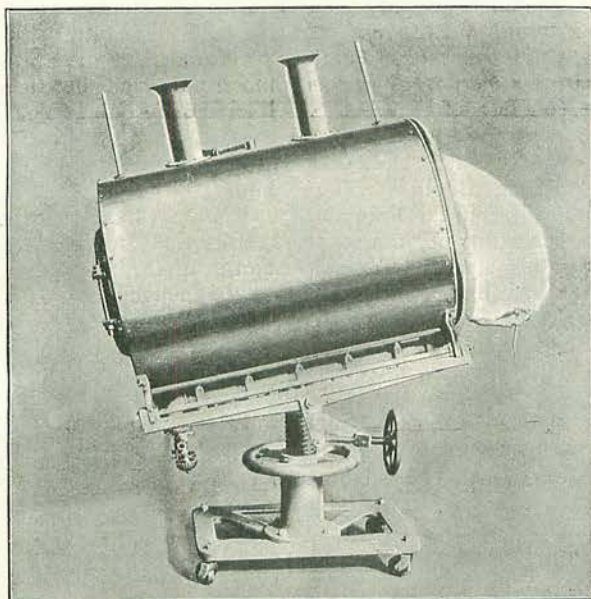
After the baking the patient feels weak. He is then rubbed, and made to rest until completely restored to normal condition. A two-hours' rest makes one feel as if he had enjoyed a pleasant, dreamless sleep. On going

out into the air a species of exhilaration is experienced, and one seems better fitted for mental and physical exertion than he was before the baking.

The principal forms of disease in which hot dry air is used are: Gout, rheumatism, inflammation, lithæmia, obesity, œdema, and all forms of pain—congestive, neuralgic, and even psychic. Some very remarkable cures have been reported among

the 3,000 persons who have already been baked in America. Persons have been able to walk after years of affliction with deforming rheumatism, and in certain cases chronic forms of disease have been cured.

Hospitals and physicians all over the United States are taking up the treatment. At first doctors were extremely cautious in reference to the new therapeutic agent, but it seems to have at last won its way into favour. The three principal hot-air hospitals are at 33 West 42nd Street, New York; 1516 Arch Street, Philadelphia; and at 330 Michigan Avenue, Chicago. They are called “Sprague Hospitals” after the inventor of the hot-air cylinders, and the technical name for the application of heat in this way has given rise to a new word in medical nomenclature—it is “Spragueing.”



From a Photo. by

OVEN FOR BAKING LEGS.

[W. B. Northrop.]