

A CHAIR DESIGNED FOR THE PREVENTION OF SEASICKNESS.

The cures or preventives for seasickness which have been proposed are almost without number. The majority of them, however, attempt to counteract the unhappy effects of the ship's movement by the use of drugs or chemicals, while the methods employing mechanical means are not so numerous. A novel device has recently been added to the latter category; and while its promoters do not claim to cure seasickness by means of the apparatus, they do claim that they are able to prevent that unpleasant malady during the time that the traveler makes use of the mechanism. The apparatus is the invention of Dr. Carl Brendel, of Tschupackowka, Russia, and is being experimented with by a prominent German electrical firm.

The invention, which is by no means confined to the form of apparatus shown in the accompanying illustrations, consists essentially in making the movements of the ship when pitching, rolling, heaving, and setting less felt by the passengers, by providing special chairs, couches, or a whole platform forming part of the deck, and giving to these, either by machinery or by hand, short up and down movements. Consequently, as the long movements of the vessel are thus changed into a great number of short motions, which are constantly interrupted by brief movements in an opposite direction, the causes producing seasickness are counteracted. The form of device illustrated in the engravings consists of a chair with the seat movably arranged with respect to the legs, arms, and back. The short up and down movements are given by a small electric motor located between the legs of the chair, and connected by means of a belt with an eccentric actuating the seat. The speed and intensity of the

common a belief that the well-nourished body is the most healthy and best able to resist disease, and that a large fat deposit in the tissue is an evidence of good general nutrition.

"Our food," says the doctor, "is made up of proteids, fats, and carbohydrates. The proteid or albumen, both animal and vegetable, is the tissue builder. Relatively, a larger amount of proteid is required for the growing individual, pound for pound, than for the adult. The fats and carbohydrates (sugars and starches) comprise the fuel of the body, and supply the necessary heat and keep the machinery going."

Dr. Billings cites the standard of Carl Voit, of Munich. Voit considers that a normal man of an average body weight of 150 to 165 pounds, doing a moderate amount of work, requires daily 118 grammes of proteid, 55 grammes of fat, and 500 grammes of carbohydrates. This gives a total food value of about 3,000 calories, and will maintain the body in a good physical condition.

The fate of the elements, when taken into the body, we are told, is as follows: "Fats and carbohydrates, when oxidized in the body, are ultimately burned to simple gaseous products, that is, carbonic acid and water. Consequently, the waste from these food products is quickly thrown out of the body without resulting harm to any of the tissues. If such products are taken in excess, the harm which results will be chiefly in the deposits of fats in an undesirable amount, which would render the body gross and unwieldy. A too large amount taken is very apt to clog the alimentary canal, overfatigue the digestive organs, and may undergo abnormal fermentation.

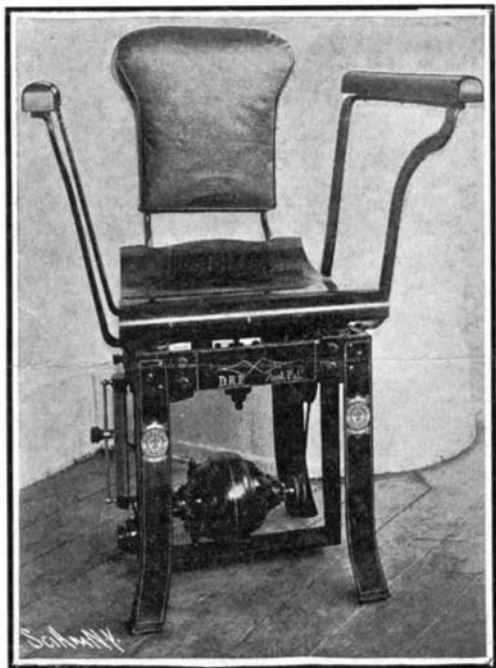
"The waste products of proteid foods, when assimilated, consist of crystalline nitrogenous products,

need of nitrogen is very small, as it is limited to the actual building up of the cell bioplasm. It is not necessary to store it in the body, because an excess of nitrogen is always furnished with the food. A larger nitrogen intake than is necessary to meet the needs of endogenous metabolism will lead only to an increase in the elimination of urea."

It is stated that the organism, at any time, may be made to store up fats and carbohydrates, if an excess over the requirements is taken. An excess, however, may overburden the digestive organs and cause abnormal fermentation. Too large a deposit of fat may render the body unwieldy, and may infiltrate and physiologically embarrass the muscles and viscera.

The author draws the conclusion that the so-called standard diets are unnecessarily rich in proteids. "It is necessary to supply protein in the food," says he, "in sufficient amount to provide liberally for the endogenous or tissue metabolism and to maintain a reserve protein in solution. If the blood is in need of tissue builders, the organism can rapidly assimilate large amounts of nitrogenous food. This is clearly shown in emaciated conditions following fevers, surgical operations, etc., for during convalescence there is often a ravenous appetite and a rapid increase in weight and strength with a corresponding retention of nitrogen. . . . The growing individual and the emaciated convalescent only can utilize a large nitrogen intake and retain it. The difference in the dietary of grown normal individuals will consist mainly in the fuel foods—the fats and carbohydrates."

Dr. Billings contends that the achievements of the Japanese on a diet chiefly carbohydrate is sufficient proof that a high efficiency, both mental and physical, may be maintained on a low proteid and full fuel diet



A Chair Designed to Prevent Seasickness. The Seat is Movably Arranged and is Reciprocated Rhythmically by Means of an Electric Motor Connected by Means of a Belt with an Eccentric Actuating the Seat.

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movements can be regulated between considerable limits by means of suitable devices incorporated in the mechanism.

The chair, which was brought to this country by R. and W. Otto, was extensively tested on a recent voyage of the Hamburg-American liner "Patricia." A number of passengers, who were badly upset by the pitching of the ship, tried the device, and declared that while they were in the chair, they felt no symptoms of illness, but when no longer using it, the seasickness in some cases at once returned, although not in others.

The chair has been tried on the English Channel steamer "Peregrine" between Hamburg and Harwich, and on the Hamburg-American mail steamer "Patricia."

Some New Ideas About Food.

The important question of the physiology of nutrition is fully considered by Dr. Frank Billings in a recent issue (November 4) of the Journal of the American Medical Association. It is especially important to the physician, for without a clear idea of the subject he cannot prescribe a proper dietary for the well or sick, nor can he clearly understand the result from malnutrition.

According to the author, it is the belief of the layman and of many physicians, too, that the chief nutrition of food consists of the proteids, and that meat, especially, is looked upon as the food which affords strength and sustained effort. Among Europeans and Americans especially meat eating is very prevalent, chiefly for the reasons given above. Besides this, the palate is pleasantly excited by rich animal foods, and in consequence a larger amount is taken. It is too

which ultimately pass out of the body, chiefly through the kidneys. Before their elimination from the body these crystalline elements, which are in some instances toxins, float about through the body, and may exercise a deleterious influence on the organism, either general or local. The literature is full of theories on the diseases due to many of these crystalline products, chiefly uric acid, urea, etc. All who are acquainted with these facts have recognized the importance of restricting the formation of the deleterious crystalline waste products by limiting as far as possible the amount of proteids taken into the body."

Until recently it has been the belief that the nitrogenous equilibrium of the body could not be maintained on a less amount of proteids than that given in the standard diet of Voit and others, but of late far-reaching experiments have been made on the physiology of nutrition and of metabolism of the body, which practically revolutionize the ideas held by most physiologists.

Reference is made to experiments conducted by Prof. R. H. Chittenden, of Yale University, that demonstrated conclusively that men from all classes of individuals, in regard to mental and physical work, could meet all ordinary requirements of mental and physical labor with a high efficiency on an intake of proteid food far below that of the standard diets. It was found, too, that in the reduction of the proteid it was not necessary for these individuals to increase very much, if at all, the amount of fats and carbohydrates to maintain themselves in good condition.

Attention is called to the evils of insufficient mastication which entails an enormously increased work on the digestive organs.

"An excess of proteid in the food," the doctor tells us, "is not stored up in the body as such, for the actual

The question whether a large proteid diet is not only unnecessary but also detrimental is answered by the doctor in the affirmative. "The continued excessive use of protein," says he, "may lead in time to the accumulation of a larger amount of reserve protein than the organism can maintain in the fluid media. The continuous unnecessary supply of unorganized reserve material may weaken one or all of the living tissues.

"We are creatures of habit. With palates craving for new sensations, and the prevalent belief that hearty eating promotes health and strength, it is no wonder that we eat too much. It is proper, too, that the pleasure of the palate should be gratified. The pleasure which eating affords promotes digestion. Bolting does not permit proper enjoyment of food. Thorough mastication undoubtedly makes the palate more discriminating, and serves as a check to overindulgence."

In the course of the operations for restoring the foundations to the cathedral at Winchester, England, the excavators discovered some interesting relics of the Roman occupation. Thirteen vases and lamps were unearthed. One piece was an excellent specimen of pottery, intact and in perfect preservation. The lamps are of the type known as "the lamp of learning," and resemble in shape a gravy boat with a spout at one end, from which the wick protrudes, and a handle at the other. The vessels are made of iron, and though discolored with age were perfect, and, considering their long burial, in an excellent state of preservation. As the cathedral dates from the year 1070—the early Norman period—these relics were evidently buried before the pile was contemplated, and are determined by antiquarians as belonging to the period of the last Roman occupation of Britain.