

body of practitioners, and those who are broad-minded enough to realize this grave violation of the first principles of a wholesome political economy, will feel, as I do, that prompt and just measures should be taken to regulate our medical charities. For my part, I have a most thorough appreciation of the needs of those upon whom we would bestow charity, but my sympathy is broad enough to embrace the medical as well as the lay poor. I therefore recommend to this Society that a special committee be appointed to obtain such facts about this subject as may be necessary to just conclusions, and that the results of this investigation be submitted to the entire Society for such action as it may think proper. I would suggest that this committee consist of eleven members, namely, the chairman, five members to represent respectively the five medical schools, and the other five on behalf of the profession in general.

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### STARVING ON BEEF TEA.

It is generally believed that beef tea and animal broths of all kinds are nourishing. The most recent medical authorities assure us that this is a mistake. In order to combat what it calls "The Beef Tea Delusion," Modern Medicine (March) publishes an article consisting largely of quotations from a high modern authority. We produce several paragraphs below: "The late Dr. Austin Flint remarked on one occasion that thousands of patients have been starved to death while being fed on animal broths, beef tea, etc. No error could be greater than the notion very commonly held by the laity, and still quite too largely entertained by the members of the medical profession, that beef extracts, beef tea, bouillon, animal broths, etc., are peculiarly nourishing in character. We can adduce no better evidence to the contrary than is afforded by the following paragraphs from 'Bunge's Physiological and Pathological Chemistry,' one of our latest and most reliable authorities:

"We must guard against supposing that meat bouillon possesses a strengthening and nourishing influence. In regard

to this, the most delusive notions are entertained not only by the general public, but also by medical men.

"Until quite recently the opinion was held that bouillon contained the most nutritive part of meat. There was a confused idea that a minute quantity of material—a plateful of bouillon can be made from a teaspoonful of meat extract—could yield an effectual source of nourishment, that the extractives of meat were synonymous with concentrated food.

"Let us enquire what substances could render bouillon nutritious. The only article of food which meat yields to boiling water is gelatin. It is well known that albumen is coagulated in boiling, the glycogen of meat is rapidly converted into sugar, and this again into lactic acid. The quantity of gelatin is, moreover, very small, for a watery solution which contains only one per cent. of gelatin coagulates on cooling. Such coagulation may occur in very strong soups and gravies, but never in bouillon. Bouillon, therefore, contains much less than one per cent. of gelatin. In preparing extract of meat, the quantity of gelatin is reduced as much as possible, because it is in a high degree liable to putrefactive changes, therefore likely to interfere with the preservation of the preparation. The other constituents of bouillon are decomposition products of foodstuffs—products of the oxidations and decompositions which take place in the animal organism. They cannot be regarded as nutritious, because they are no longer capable of yielding any kinetic energy, or at most such a small amount that it is of no importance whatever.

"Nevertheless, until the most recent times creatin and creatinin, which are among the chief constituents of meat extract were regarded as the source of energy in muscle. This assertion was shown to be untrue by the researches of Meissner and of Nott, who proved conclusively that creatin and creatinin are excreted in the urine twenty-four hours after their absorption without loss. A material which is neither oxidised nor decomposed