can it be placed for examination in the hands of the committee? What other persons have heard of this apparition? How soon did they hear of it? Can they now be communicated with? What are their addresses? If possible, transmit their accounts at the same time with the narrative of the one who actually experienced the apparition in question. If two or more had the experience in common, their names and separate narratives should be given. If this is not possible, give their names and addresses.

These questions are not meant to cover all the ground in every case, but only to indicate the information desired, and the most helpful sorts of information. In dealing with all these accounts, the committee will be governed by no pre-conceived theory or prejudice. They wish simply to hear and examine the facts, and to draw therefrom whatever conclusions may prove to be warranted by the evidence. To this end they invite friendly co-operation from all well-disposed persons.

Correspondents may feel assured that their communications will be treated as thoroughly confidential by the committee when specially requested so to treat them.

The committee may be able to devote a somewhat limited time to the personal examination of the phenomena connected with so-called haunted houses, and would be glad to hear of such phenomena from persons in the vicinity of Boston. The fullest details are requested from all who may offer information on this topic.

Communications may be addressed to any member of the committee, which is constituted as follows: Josiah Royce, chairman, Cambridge, Mass.; Morton Prince, M.D., secretary, Boston, Mass.; T. W. Higginson, Cambridge, Mass.; J. C. Ropes, 40 State Street, Boston, Mass.; F. E. Abbot, Cambridge, Mass.; Roland Thaxter, 98 Pinckney Street, Boston, Mass.; Woodward Hudson, Concord, Mass.

FOOD-CONSUMPTION.

THE Massachusetts bureau of statistics of labor devotes considerable space, in its last annual report, to this subject, on account of its vital connection with the condition of the workingman. The author says, very justly, that the food-problem is one of the most important that can engross the attention of the people, and of practical interest to the wage-worker, as much money is wasted in the purchase of food which might be saved by its expenditure in accordance with the results of scientific research. The truth of this is apparent to those who have observed how little the poor understand economy in the choice of foods.

The economic value of food-substances cannot be measured by their money cost, but by the amount and kind of nutritive material which they contain. This material the author divides into three different classes — viz., proteines, fats, and carbohydrates — in addition to the mineral matters, and bases the relative value of food-substances upon the available amounts contained.

The relative physiological values of the nutrients in different foods depend, first, upon their digestibility; and, second, upon their functions and the proportions in which they can replace each other in nutrition. Their accurate physiological valuation is, in the present state of our knowledge, impracticable; but their pecuniary costs are more nearly capable of approximation. From extended and careful comparisons of the composition and market prices of the more important animal and vegetable food-materials, which form the bulk of the food of the people, it is estimated that a pound of proteine costs, on the average, five times as much, and a pound of fats three times as much, as a pound of carbohydrates. Of these, proteine is physiologically the most important, as it is pecuniarily the most expensive, and its cost may be used as a means of comparing the relative cheapness or dearness of different food-materials. Taking the cost of food-materials in New York as a basis, and making allowance for the cost of the other nutrients, the proteine in a pound of sirloin beef at 25 cents is estimated at $1.06; in a pound of mutton at 22 cents, 91 cents; in a pound of oysters at 35 cents per quart, $3.36; in shad at 8 cents, 66 cents; in milk at 7 cents per quart, 53 cents; in wheat-bread at 8 cents, 38 cents; oatmeal and beans at 5 cents, 14 and 15 cents.

The nutrients of vegetable food are, in general, much less costly than in animal foods. The animal foods have, however, the advantage of containing a larger proportion of proteine and fats; and the proteine, at least, in more digestible forms. Among the animal foods, those which rank as delicacies are the costliest. Thus the proteine in oysters costs from two to three dollars, and in salmon rises to over five dollars per pound. In beef, mutton, and ham, it varies from $1.06 to 33 cents; in shad, bluefish, haddock, and halibut, the range is about the same; while in cod and mackerel, fresh and salted, it varies from 75 to as low as 31 cents per pound. Salt cod and salt mackerel are nearly always, fresh cod and mackerel often, and even the choicer fish, as bluefish and shad, when abundant, cheaper sources of proteine than any but the inferior kinds of meat. Among meats, pork is the cheapest; but salt pork or bacon has the disadvantage of containing very little proteine.

Oatmeal is one of the cheapest foods we have; that is, it furnishes more nutritive material, in proportion to the cost, than almost any other. Wheat-bread and rice, on the other hand, are the most expensive, in proportion to their cost, of the staple vegetable foods.

By taking into account all the nutritive substances, it is estimated that 25 cents will pay for .29 of a pound of nutrients in beef sirloin, .40 in round beef, and .92 in neck beef; oysters, .12 to .17; shad and bluefish, about .28: smoked herring, 1.21; cheese, 1.08 to 1.35; milk, .99; wheat-bread, 2.08 to 2.75, etc.

Of course, in the comparative value of foods, their actual physiological use is not unimportant. Foods rich in nutrients may not be readily assimilable, and only physiological experiments can finally determine their actual nutritive value.

From a study of the dietaries of factory and mill operatives, mechanics and other people engaged in manual labor in Massachusetts and Connecticut, the most noticeable features observed were the large quantities of food consumed, especially of animal food and fats. The total amount of nutrients per man per day varies in the Massachusetts dietaries from 690 grams to 1,052 grams; while in the European dietaries the normal range is from 653 to 863 grams. In the European the consumption of fats ranges from 13 to 100 grams, while in the Massachusetts dietaries in no case does it fall below 127, and reaches as high as 304 grams. If common usage in Europe, and the standards which are currently accepted there, are correct expressions of the proper quantities of food and of fat for healthful nutrition, the quantities of total food, of meats, and especially of fats, in the New England dietaries examined, are needlessly large, and in some instances excessively so. The dietaries studied all pointed in one direction, indicating that in this country a large excess of food is consumed, not only by well-to-do people, but also by those in moderate circumstances. This excess consists mainly in meats and sweetmeats, which are expensive, as well as physiologically injurious when consumed in too large quantities.

ELECTRIC LIGHTING IN ENGLAND.

OWING to the restrictions imposed by the act of 1882, electric lighting on any large scale is still a matter of the future in England, and the industry has not developed to any such extent as in Germany, Austria, Italy, or Belgium, and by no means as in this country. Perhaps partly from this interference with the development of a large system of distribution for electric lighting, and partly on account of the existence in England of large country houses in the possession of wealthy owners, the electrical illumination of single houses has been brought to a higher degree of perfection than domestic electric lighting in other countries. Men of wealth have constituted themselves into amateur electricians, the marvels of electricity apparently exerting a captivating influence upon their minds, and its study has been a hobby of many.

The pioneers of domestic lighting in England were Sir William Thomson, Sir William Armstrong, Mr. Coope, Mr. Sellon, and Mr. Charles Moseley. Sir William Thomson used a gas-engine, and worked his lamps directly from the dynamo, not only lighting his house, but also his classroom and laboratory in the University of Glasgow. Sir William Armstrong obtained his power from a waterfall in his ground. Mr. Coope used a steam-engine; and Mr. Sellon and Mr. Moseley relied on secondary batteries, obtaining their power from gas-engines.

The good examples thus set have been followed by many, and at present a great many private houses in all parts of the country are thoroughly and efficiently lighted. In fact, electric lighting is becoming a fashion, and in the opinion of Mr. Preece, as expressed at a recent meeting of the London society of arts, "the only fear of its ultimate general success is its falling into the hands of the inexperienced and ignorant."

Steam, gas, and water power have been satisfactorily used as agents for the production of power. Petroleum has not as yet had a trial in England, and wind is too uncertain to be relied on. Mr. Preece believes that a simple effective steam domestic motor has not as yet been introduced; but in this opinion he was criticised by Mr. Crompton of the Society of arts, who affirms that there are several English engines which could be worked by a gardener or butler as satisfactorily as a gas-engine. But most of the high-speed engines require more technical skill than is usually to be found among the domestics of an ordinary household. On this account the council of the Society of arts has under consideration a plan of offering prizes for the best engines designed to fill the special purposes of providing power for electric lighting. The competition will probably be extended to all classes of engines,— steam, gas, petroleum, or what not.

At present the gas-engines seem best adapted to supply the need. According to the statement of Mr. Preece, 25 cubic feet of gas will give us one horse-power, or eight 20 candle-power glow-lamps, or 160 candle-power all told; but five 5-feet burners will give only 75 candles when