thumb: slight adduction of the wrist was possible, and the grasp was improved. At the end of the first week the dynamometer registered six: there was no pain on movement, little on massage. At the end of the second week the dynamometer registered ten; there was no pain on movement or massage; the fingers were easily spread, and the thumb could be approximated to the base of the little finger; adduction fair; extension possible to the straight line; swelling lessening, and forearm increasing in size. A splint was applied to assist extension. At the end of the third week the right forearm had increased from 9 to 9½ inches, and the right wrist had decreased from 7½ to 7¼ inches; the dynamometer registered fifteen. At the end of the fifth week no swelling was perceptible at the wrist; all movements of the wrist and fingers were free, excepting a very slight restriction in extension; the grasp was good, although the fist could not be clenched quite as firmly on the right as on the left. Treatment discontinued.

CASE II, kindly referred to me by Dr. J. R. Chadwick. A prominent lawyer, beyond middle age, a rather heavy man, had suffered during the previous winter from a severe attack of sciatica, which entirely disabled him, and required the use of opiates. This wore off, and by spring he was able to get about easily. Early in the summer the ankles began to show a tendency to swell, more especially the left. The trouble increased until it caused the patient considerable annoyance. The swelling was unaccompanied by noticeable pain or redness, but was increased by exercise, being particularly marked at night.

Treatment was commenced in the middle of October, no promise of benefit being held out. The faradic current (every other day) was first applied, and the result was so gratifying that this form of electricity was used throughout. The swelling could be seen to lessen, and the movements of the feet to become more free during each application. The return of the swelling between the applications became gradually less marked, and in two months and a half the ankle was virtually normal, and the treatment was discontinued. Recurrence of the trouble one month later caused the treatment to be recommenced, with similar result, two weeks proving sufficient for recovery. During the two years succeeding there have been occasional intervals of moderate swelling, accompanied by slight pain and stiffness, not sufficiently marked to require treatment. There has been, also, one attack of sciatica.

I have treated a number of cases of muscular rheumatism, notably of the neck and back, with results coinciding with those of Beard and Rockwell and other writers. No case, however, offers sufficiently marked or unusual characteristics to justify especial mention. The rapidity with which pain and stiffness sometimes disappear under the treatment certainly warrants the assumption that the current produces some definite change in the tissues, and acts as something more than a stimulant to nerves and muscles. It seems not improbable that here, too, we have to do with the absorption of a moderate degree of exudation. Cases of the ordinary form of stiff neck from exposure to cold have shown marked results from the use of galvanism to the affected side and faradism to the opposing muscles.

Swelling of the ankles like that seen in the second

case quoted above is not an uncommon symptom in corpulent people, without cardiac or renal troubles, and even without the rheumatic tendency evident in his case. In several cases of this nature, as well as in the troublesome cases of pain in the heels and soles of the feet caused by overuse, and which can hardly be classed either under rheumatism or neuritis, but which tax severely the patience of both physician and sufferer, I have been surprised at the degree of benefit obtained from the use of electricity, and in place of suggesting it as a last resort have become encouraged to recommend it in many of these cases with considerable confidence. In this class of cases the faradic seems fully as efficacious as the galvanic current, the explanation of which it would be premature to attempt in the present unsettled state of our knowledge regarding the effect of either current upon the organism. The thought would suggest itself, however, that counter-irritation and the modification of the superficial circulation play a great part in the cures effected by faradism, in contradistinction to the catalytic action of galvanism. Further investigation is desirable to aid in the classification of cases, and to permit more definite indications for the choice of currents, the object of this paper being rather to emphasize the practical advantages to be gained by this form of treatment than to discuss the theory of its action.

REPORT ON FOOD AND DRUGS, THEIR SOPHISTICATION AND ANALYSES.

BY B. F. DAVENPORT, M.D.

FRANCO-SWISS MILK FOOD.¹

COMPOSITION.	
Water	4.16 per cent.
Fats	1.94 "
Milk sugar and grape sugar	9.70 "
Cane sugar	84.62 "
Starch	33.02 "
Soluble carbo-hydrates	46.85 "
Ash	1.43 "

Its agreeable flavor resembling cake is due to the milk solids, and the mode of preparing the cracker before powdering.

LÖEFLUND'S CREAM EMULSION.¹

COMPOSITION.	
Water	24.32 per cent.
Fats	15.32 "
Soluble albuminoids	2.24 "
Insoluble "	4.98 "
Maltose and lactose	43.16 "
Dextrine	6.27 "
Ash	2.60 "

Similar in appearance, smell and taste to butter-taffy, the advertised analysis agrees reasonably well with the above, which is unusual for any proprietary food. But what is more remarkable it has over twice as much butter fat as is claimed for it, while usually such preparations contain less than a fair whole milk would naturally yield. It does not dissolve readily in water, white curds separating and coming to the top. It is much too sweet to resemble cow's milk. Such an excess of saccharine matter is highly objectionable.

WELLS AND RICHARDSON'S LACTATED FOOD.¹

The name of this food conveys a false impression for it does not contain any milk.

The claim that it contains fifteen per cent. of malt diastase, retaining its full activity, is not sustained by the analysis, where no diastatic action upon the over

¹ Report of N. J. State Dairy Commissioners for 1887.

one-third part starch was found when the food was brought into solution. In the presence of so large an excess of alkali no such action is to be expected. Its albuminoids are derived from the gluten, etc., of the cereal, and not from milk.

COMPOSITION.

	As advertised.	As found.
Water	7.76 per ct.	7.76 per ct.
Fat	1.64 "	1.64 "
Milk-sugar	25.00 per ct.	29.65 "
Malto-diasase	15.00 "	15.00 "
Soluble carbo-hydrates	41.67 "	39.00 "
Starch	"	36.43 "
Gluten and soluble albuminoids	16.35 "	"
Albuminoids	"	11.85 "
Potassium bicarbonate	1.25 "	"
Phosphates	0.25 "	"
Sodium chloride and other salts	0.48 "	"
Ash	"	2.61 "

100.00

MALTED MILK.²

COMPOSITION.

Water	2.18 per cent.
Fat	5.30 "
Albuminoid	16.88 "
Soluble carbo-hydrates	66.39 "
Starch	5.57 "
Malt-sugar and milk-sugar	50.40 "
Ash	3.13 "

This food differs from Nestle's and others like it in that most of the starch has been converted by malt diastase into maltose. The malt extract in the food as sold, has no diastatic activity. The claim that the caseine has been predigested by the diastase, that is converted into a soluble form, is not found to be true. The caseine in the "Malted Milk," is present with its properties no more changed than they are in Nestle's, the Anglo-Swiss, Carnrick's Soluble Food, or other similar milk foods, prepared by evaporating down baked wheat powder with condensed milk. In all of these it is left behind as separate, hard, unchanged particles of caseine.

REED AND CARNRICK'S LIQUID PEPTONIDS.²

COMPOSITION.

Water	64.694 per cent.
Alcohol	15.136 "
Albuminoids	2.021 "
Fat	0.031 "
Carbo-hydrates, mostly sugars	17.666 "
Ash	0.350 "

This claims to be "concentrated beef and milk with gluten perfectly digested." It is a strongly alcoholic liquid of a light yellow color, with an alcoholic burning taste, and with a smell similar to that of many preparations of hair oil. It appears that the insidious introduction into the bed-room of an invalid, of a preparation claiming, as this does, to be of a highly nutritious character, and yet which is principally composed of alcohol, is a criminal act. There is nothing on the label to make him suppose that he is drinking something which is almost entirely sweetened alcohol. In communities where the sale of spirituous liquor is prohibited, this liquid peptonoids could supply in secret, a morning dram to every toper, under the guise of medicine.

RHUBARB.³

Chinese rhubarb may, according to Dr. Boni, be distinguished from the European by the amount of lime occurring in the ash. The former yields 20 to 25% ash, while the latter 8 to 9%. This difference being due to the amounts of calcium oxalate which they contained.

² Report of N. J. State Dairy Commissioners for 1887.

³ Pharm. Post, Jan. 22, p. 51.

UNFERMENTED WINES.⁴

Mr. Millard reports on his examination of unfermented wines sold for sacramental purposes as free from alcohol, that where he found the alcohol absent, some preservative, such as salicylic acid was present. None of these were genuine, but rather merely acidulated and colored syrups. Cochineal or some other coloring was present in all.

PEPPER.⁵

Of late years, grain of paradise has become a frequent form of adulteration in powdered pepper. This may be detected not only with the aid of the microscope, but also from the presence of tannin which is not to be found in the genuine pepper. The powder treated with a mixture of alcohol and ether yields the tannin, which is shown by its reaction with tincture chloride of iron.

SWEET WINES.⁶

Considering the extensive use of such for medicinal purposes, the results of the analysis of American samples by the United States Agricultural Department, are of interest to physicians. They were, that but little of the pure juice of the grape entered into their composition, but that they were chiefly composed of alcohol, sugar and water, and partook more of the nature of a liquor than of a natural wine. The samples were of California, Sherry, Port, Burgundy, Muscatel and Angelica.

COGNAC PRODUCTION AND TRADE OF FRANCE.⁷

According to "Weinlaube," France yearly exports about 300,000 hectolitres of alcohol, while it imports 200,000 to 330,000. There is distilled from wine about 20,000 to 25,000 hectolitres of cognac, and about 6,000 more is imported, making altogether 26,000 to 31,000. There is, however, 150,000 to 160,000 hectolitres of so-called cognac exported annually, over 100,000, to England alone. One can judge from these figures what an immense quantity of artificial brandy is exported annually from France under the name of cognac.

PRIZE FOR THE DETECTION OF ADULTERATION.⁸

The Minister of Commerce in France has informed the Academy of Science that he is authorized to offer a prize of 50,000 francs to any one for the discovery of a simple and useful instrument for the detection of adulterations in wine and spirits.

CHAMPAGNE ADULTERATIONS.⁹

The perfection of adulteration is shown in the following circular sent out by a German wine dealer. "Our very large trade in champagne, enables us to offer you our cheap quality of champagne at 15,60 francs per dozen, inclusive of packing and shipping by way of Rotterdam or Antwerp. We wish to call your attention that we leave to you the selection of any labeling you desire, and beg that you allow us to send you a sample"—to leave thus to the purchaser the selection of the label, is to attain to the inimitable.

⁴ Pharm. Journ. and Trans., April, 1888.

⁵ Journ. der Pharm., Class-Lothig, 1888.

⁶ U. S. Agricultural Department Bulletin, No. 13, part iii, p. 368.

⁷ Zeitschrift f. Nahrungs-untersuch. und Hygiene, Mai, 1888.

⁸ Revue Internationale des falsification des Denices Aliment, Mai, 1888.

⁹ Revue Intern. des falsification, etc., Mai, 1888.

THE NATIONAL FORMULARY.

A collection of unofficial preparations issued by authority of the American Pharmaceutical Association, 1888. This work is intended to include the more important of the large number of medicinal preparations which are more or less frequently prescribed by physicians, or demanded by the public, but which are not recognized in the United States Pharmacopœia, either because they were not deemed by the revisers to be of sufficient importance to be included in this official work or because they originated subsequently to the appearance of that work, or for other reasons. Owing to the absence of an authoritative standard, many of these unofficial preparations have been, and are being made after different formulæ, and in varying strength, so that pharmacists, particularly in the larger cities, are compelled to procure and keep on hand a variety of brands of what is intended to be one and the same preparation, to satisfy the demands of their patrons, professional or otherwise. In compiling the work, the needs of all sections of our country have been consulted. The list even includes a small number of formulæ in imitation of some of the popular nostrums of the present day, but constructed on rational principles for uniform composition and reliable effect, rather than for mere external appearance and taste. It is hoped that these will be used as directed to be used in place of the proprietary articles, the composition of which is generally kept secret.

As the mission the work is to fulfil can only be properly accomplished by the coöperation of the physicians, it is of the greatest importance that they make themselves acquainted with its object and contents, and that then they will consent to accept the preparations made in accordance with the formulæ contained in it, instead of designating any special maker's product.

The list of formulæ given in the work numbers 435, and includes 86 elixirs, 54 extracts, 41 liquors, 19 mixtures, 21 pills, 35 syrups, 33 tinctures, and 12 wines, besides the many lesser groups, and single members. In constructing the formulæ of the compound preparations, it has been endeavored to make them as independent from each other as possible, so that only a comparative small number of what may be called basic preparations are needed. If these, numbering about a dozen, are kept in stock by the apothecary in reasonable quantities, most of the compound preparations contained in the formulary may be prepared in a short time.

Clinical Memorandum.

HALLUCINATIONS OF HEARING.

BY J. ALBAN KITE, M.D., NANTUCKET, MASS.

A CASE recently came under my care, presenting hallucinations so peculiar as to warrant their being recorded. Mr. E., the subject, is over eighty years of age, and, with the exception of deafness has retained his faculties to a remarkable extent (deafness $\frac{1}{4}$). Until the last few years he has lead an active public life. Has been temperate in all things save mental activity. A few days prior to my seeing him, he was one evening startled by a loud rapping on the window. He arose to ascertain the cause, when the sound was repeated on the opposite window, and followed by a shrill, derisive laugh. His wife, on being questioned, assured him there had been no noise. On returning,

the same performance was repeated, save that there were two actors, a deep bass voice having come upon the scene, and a lively discussion was carried on between the two. The fourth night two female characters, or rather voices, presented themselves. The various events of the day were discussed in which all seemed to take a lively interest; but what seemed strange, their conversation was flavored with such laxity of speech, that Mr. E., although assured the condition was purely subjective, felt very uncomfortable with his wife sitting beside him.

These debates lasted for several evenings, and interested Mr. E. not a little. About 9 P. M., they adjourned, and did not again appear until the next evening, when reinforced by other members of the same troupe, they announced their presence by singing "Home, Sweet Home," without an error. This was followed by several solos; and the concert was kept up until after midnight. The number of these little creatures of his imagination increased from day to day as did the variety of their antics. They visited him in daylight; followed him in his walks; called to him from doorsteps, windows, and from behind trees.

Mr. E. never saw these creatures, but knew each by his or her voice. Those who first appeared never failed to pay him a visit during the day. Not one, however, assumed the voice of a friend. Under what, I trust, was appropriate treatment, although the number of voices remained the same, they had less and less to say, and more time elapsed between the visits, until I think the sixth day of treatment, all met in the evening, and after a quiet and peaceable gathering, dispersed, their exit being accompanied by a drum-corps: the latter, in Mr. E.'s own words, "seemed to beat a retreat."

Three weeks have elapsed with no return.

Mr. E. is perfectly sane. Has, so far as I have ascertained, no organic disease, save a slight cardiac valvular insufficiency, and the deafness which is due to lesions in both internal ears. He is in the best of spirits, but occasionally suffers from epistaxis, and, at night finds his ankle slightly swollen. Whether these hallucinations are the resultant of abnormal cerebral circulation and of irritation of already diseased aural ganglia or sensory nerves, I am ignorant. The treatment was with the bromides. Mr. E. has told me the substance if not the exact words, of conversations he has had with Daniel Webster, and can give last week's stock quotations as accurately as any financier. His opinion is often asked on various subjects, and results have shown his good judgment. I know of no one whose calm reasonableness is more to be depended upon, nor have I seen this latter condition departed from.

Reports of Societies.

BOSTON MEDICO-PSYCHOLOGICAL SOCIETY.

PHILIP COOMBS KNAFF, M.D., SECRETARY.

APRIL 19, 1888. DR. C. F. FOLSOM in the chair.
DR. WALTER CHANNING read a paper

MASSACHUSETTS LUNACY LAWS.¹

DR. GEORGE F. JELLY said that he saw as much of the workings of the present lunacy laws as any mem-

¹ See page 97 of the Journal.