

Summary.—Coca-using Indians of Colombia do not *chew* the leaf, but suck the saliva-made juice from the huge boluses of coca leaves mixed with lime, stored in the cheek. So far as known, this has been the method of these people from the traditional past. These coca users are typical specimens of perfect physical manhood, being muscular and well formed. *Whether this is due to the Coca, or is in spite of the Coca,* is a question we did not solve. Their food is simple and sparing, consisting of corn, a little sugar, no fruits, no nuts, no fish, little meat, and occasionally beans or rice. Their endurance to both the fatigue of travel and exposure to the elements is phenomenal. From early daylight to the dusk of night they run or walk rapidly. Then, after supper (their first meal since morning), they sleep in a rude "shack" with no other cover than their capes to protect them from the penetrating cold of the damp air and wet ground. The disposition of these Indians is exceptionally pleasant, they being ever genial and good natured. Not one sour, disagreeable, mentally unbalanced or wicked coca-using man or woman did we meet.

During the passage through their country, the only chronic sickness that we observed among them was a severe eye affection, due probably to the smoke of their houses. To our eyes, this smoke was unbearably irritating.—J. T. L.

BIBLIOGRAPHY.

1. MONARDES, NICOLAS.
Historia medicinal de Indias occidentales. Seville, 1569. (Later editions in Spanish, Latin, English, French, and Italian.)
2. DOWDESWELL, G. F.
Observations on the properties and action of the leaf of the Coca plant, *Erythoxylon Coca*. (*The Lancet*, London, 1876, pp. 631, 664.)
3. CLUSIUS, CAROLUS.
Aliquot notæ in *Garciaë aromaticum* historiam præter descriptiones peregrinarum nonnullarum stirpium. Antwerpiaë, 1582.
Antidotarium sive de exacta componendorum, miscendorumque medicamentorum ratione. Antwerpiaë, 1561.
Exoticorum libri decem. Antwerpiaë, 1605.
Rariorum aliquot stirpium per Hispanias observatarum historia. Antwerpiaë, 1576.
4. HOOKER, W. J.
Companion to the Botanical Magazine. London, 1835-1836.
5. MORTIMER, W. G.
Peru, History of Coca, "The divine plant of the Incas." New York, 1901.
6. VALERA, BLAS.
Commentarios reales. 1609.

REPORT OF COMMITTEE ON WEIGHTS AND MEASURES.

GEORGE C. DIEKMAN, CHAIRMAN.

The committee has not learned of any material or important national legislation in connection with the subject of weights and measures during the past year.

Prof. Philip Asher writes as follows:

"I have not come across anything during the past year that I could suggest that might be added to your report."

Prof. H. V. Army writes as follows:

"As to the Weights and Measures Report, the only suggestions I have to offer are as follows:

1. "Acceptance of a standard carat weight of 200 milligrams by international agreement. Every move of this kind means a step toward internationalization of the entire metric system.

2. "Some years since, when on this committee, I wrote at request of the then chairman, to the congressmen of the Northern Ohio districts, urging favorable action on a metric system bill then pending. I received an interesting answer from one of the congressmen, stating he was heartily in favor of the measure, since he felt that the only way to extend our South American trade was to deal with the people down there on a metric basis. But he found that the greatest opposition came from his own district, where much fine machinery—and much of that designed for sale to the U. S. government—was made; that to make this machinery, special expensive tool and screw making appliances were installed; that in all of this machinery the gauging of the threads of the screws was by ordinary units—fractions of inches—and that such manufacturers were able by their influence to block the proposed legislation.

3. "From this, it would seem that missionary work should be conducted by those societies desiring adoption of the metric system among the chambers of commerce in the various cities of our country; for it looks to me very much as if no legislation will be obtained unless our academic efforts are fortified by approval—if not support—of the commercial side of the problem."

In New York state the board of pharmacy adopted a rule, which was subsequently approved by the state board of regents, thus becoming a part of the law, requiring each pharmacist or druggist doing business within the state, to possess the following named minimum equipment of utensils:

One (1) base scale capable of weighing 1 grain or less.

One (1) set of accurate troy weights from 1 grain to 2 drachms.

One (1) set of accurate metric weights from 50 milligrams to 20 grams. A set of glass graduated measures, two or more in number, capable of measuring from 10 minims to 16 fluidounces.

A set of glass graduated measures from 5 cubic centimeters to 500 cubic centimeters.

In New York state, the so-called Brooks bill, entitled, "An act to amend the general business law, in relation to weights, measures and containers, and to repeal section two hundred and sixty-three of the agricultural law," was approved by the Governor on April 2, 1912. The main part of the law took effect on June 1, 1913, but certain parts do not become effective until February 1, 1914. Under this act, certain preliminary regulations and requirements were prepared by the Superintendent of Weights and Measures and the chief or principal weights and measures officials of the cities of the first class.

Among the regulations and requirements, the following are of interest to pharmacists:

4. Commodities in glass bottles or jars. Commodities in glass bottles shall show the contents in one of the following ways:

(1) The capacity in terms of gallons, quarts, pints, or half-pints, or in terms

of fluidounces, may be blown in the side or neck of the bottle. Such letters shall be at least three-eighths of an inch in height for bottles having a capacity of six ounces or over, and one-fourth for bottles having a capacity of over two fluidounces but less than six fluidounces, and must be exposed, that is, must not be covered by a label or other covering.

(2) The quantity of the contents of the bottle when filled may be stated in terms of weights or in terms of fluid measure, the weight being indicated in terms of avoirdupois pounds and ounces and the fluid measure being indicated in terms of gallons, quarts, pints, half-pints or gills or fluidounces. The marking to be on a tag attached to the bottle or upon a label. The letters shall be in bold-faced type at least one-ninth of an inch in height for bottles or jars having a capacity of gill, half-pint, one pint or multiples of a pint, and letters at least three-sixteenths of an inch in height for bottles of other capacities on a part of the tag or label free from other printing or ornamentation, leaving a clear space around the marking which indicates the contents.

(3) If the bottles are capped the marking may be on the cap in terms of weight of the contents or in terms of the fluid capacity of the contents. The lettering and designation being the same as those indicated in (2) above.

(4) If the marking is etched or ground in the surface of the bottle the letters and figures shall be at least one-quarter of an inch in height. The manner of expressing the contents being the same as those indicated in (1) and (2) above.

Variation. The variation in glass bottles shall not be in excess of those allowed by agreement between the Glass Bottle Blowers' Association of the United States and Canada and manufacturers of glass bottles by the following amounts: Those having a capacity of 2 fluidounces to 6 fluidounces, inclusive, 3 percent; over 6 fluidounces to 16 fluidounces, inclusive, 2 percent; over 16 fluidounces to 32 fluidounces, inclusive, 1½ percent; over 32 fluidounces, 1 percent.

The variation of the bottles themselves is prescribed by Section 12 of the rules and regulations agreed upon and adopted by the above named blowers and manufacturers and is as follows:

"Section 12. Manufacturers shall allow one-quarter ounce each way, from one-half to six ounces in weight, inclusive; above six ounces to twelve ounces, inclusive, one-half ounce each way; above twelve ounces to thirty-two ounces, inclusive, one ounce each way; above thirty-two ounces to forty ounces, inclusive, two ounces each way."

NOTE.—Imported bottled goods, which have been bottled and marked in foreign countries and offered for sale in this state, may be labeled and marked in terms of kilograms or grams of weight or liters (or cubic centimeters), other conditions and size of marking same as above.

(5) In connection with the weight, measure or numerical count, a statement such as "minimum," "not less than," or a statement that the contents are not "over" a certain amount or a statement that the contents are "between" certain limits will not be permissible. The law contemplates that a statement of the weight, measure or numerical count shall be within reasonable limits and such reasonable limits would constitute an average.

(6) *General Regulation.* In all the regulations, unless otherwise stated, "a

variation" shall be interpreted to mean that such variation on commodities shall be as often above as below.

(17) *Drugs and Chemicals.* Drugs and chemicals sold in wholesale shall be marked with the net weight or measure or the gross weight and tare. Allowable variations in weight or measure are such as prescribed by the Drug Trade Section of the New York Board of Trade and Transportation.

The size of the letters shall be bold-face type letters at least one-ninth of an inch in height for pounds, or multiples of the half-pound or for quantities in gallons, quarts, pints or multiples of the gallon. All other quantities shall be in bold-face type letters at least three-sixteenths of an inch in height.

(26) *Pills and Capsules.* Pills and capsules may be sold by numerical count; the size of lettering to be at least one-ninth of an inch, or 8-point bold-face type letters.

(27) *Retail Drugs.* The marking shall be in one-ninth of an inch, or 8-point type, where the weight or measure is in pints, half pints or multiples of the half-pint, or in pounds, half-pounds, or multiples of the half-pound; otherwise lettering shall be three-sixteenths of an inch. The variation will depend upon the individual substance where such variation is not already prescribed for bottled goods.

(33) Regulations on a number of commodities were taken up, but on account of insufficient data so far no attempt to establish a definite regulation was made. This applies to wooden casks, jars for salves, face creams, etc., canvas, soap-powder, certain cereals and other commodities.

These preliminary regulations have been issued by the Board above named and one of the principal objects of these preliminary regulations is to bring out any criticisms or suggestions from manufacturers. Any suggestions or criticisms supported by data will be welcomed by any of the members of the Board so that when the final regulations are issued in June there will be no need of making any changes.

Chapter 81, Laws of 1912, known as the Brooks Law, goes into effect June 1, 1913; but in its application to package goods, bottle goods, etc., will not become effective until eight months thereafter, namely, February 1, 1914, and applies to such goods which are put up or packed subsequent to February 1, 1914.

In connection with this new law, the New York Pharmaceutical Conference, William C. Anderson, President, Caswell A. Mayo, Secretary, issued the following in card form:

"The Brooks Law, requiring all commodities sold in this State to be marked with the weight, measure, or count, applies to drugs as well as to foods and other commodities.

"The law does not apply:

"(a) To commodities for consumption on the premises.

"(b) To physicians' prescriptions.

"(c) To substances put into containers furnished by the purchaser.

"(d) To sealed containers where the numerical count is less than six, the weight, avoirdupois, three ounces or less, or measure two fluidounces or less.

"Sealed containers weighing less than three ounces, avoirdupois, of pills or solids will be considered exempt.

"All other containers must bear a statement of their contents in print or in writing, clear and legible, not smaller than eight point bold face, in avoirdupois weight or fluid measure or numerical count. Such statement may be on the label or on the wrapper, blown in the bottle, or on a tag attached. Variations of three percent will be allowed. The first figure given below is the capacity in drachms, the second the permissible variations in drachms:

24—1.52	32—1.76	48—2.24
64—2.86	96—3.50	128—5.73

"These variations do not apply to beer, milk, soda, seltzer, wine or liquor bottles.

"Guaranty—The retailer will not be held liable where the packages sold by him were purchased from a wholesaler, jobber or manufacturer, residing in the State of New York, under a guaranty as to weight, measure or count."

The following extracts from editorials in one of the leading pharmaceutical journals will reflect the views of the retail pharmacists in connection with the Brooks Bill:

"This is the first of the net weight measures which has included drugs under this provision, and a study of the law and regulations leaves one more firmly convinced than ever in the wisdom of Congress in specifically exempting drugs from the net weight provision of the national food and drugs act. While the National Wholesale Druggists' Association appeared at the hearing before the legislative committee and requested the exemption of drugs from the provisions of the act, this protest seems not to have been vigorously followed up by other branches of the trade, and as a consequence the manufacturers of proprietary preparations and the retail drug trade as well are beginning to awaken to the fact that the Brooks Bill will subject them to much unnecessary trouble, expense and risk of prosecution without any corresponding benefit to the public.

"Under the regulations so far issued the druggist will be required to write on the label of each prescription for pills, capsules or tablets, the number contained in the box. In fact, the regulations provide that the number shall be stated in "eight-point bold-face type letters." He will not be required to make a statement of the liquid contents of a prescription bottle, it being assumed that this has been measured. He will, however, be required to state on the label, the weight, measure or numerical count of any drugs which he puts up into packages, ready for sale, and the variation permitted is very small. Under this regulation he would be required to state on every bottle of paregoric, of castor oil, of sweet spirit of nitre, etc., the actual net contents in fluidounces in eight-point bold-faced letters.

"The variations provided for in the regulations are wholly inadequate in so far as liquids are concerned. Under the terms of the agreement between the manufacturers of glassware and the glassblowers' union, certain definite variations are permitted in the weight of the glass used in bottles of different sizes. This variation is half an ounce above or below a given weight in bottles ranging from one ounce to eight. The mold in which the bottle is blown determines the size of the exterior. Any excess of glass present will diminish the capacity of the bottle. The specific gravity of glass being about three, this would mean that the variation in the capacity of a bottle under the union agreement would vary

from one-sixth of an ounce below to one-sixth of an ounce above the capacity intended. In a one ounce bottle this would mean a variation of $33\frac{1}{3}$ percent, whereas the regulations limit the possible variation to 2 percent. The druggist, therefore, who filled three ounce bottles without measuring them and sold them as containing three ounces would find himself infringing the law. The percentage of variation would not, of course, be so much in the larger bottles. In the New York State law regulating the size of milk bottles, a variation of eight drachms, two above or two below, is permitted in four ounce bottles, a variation of six drachms in pint bottles, and of eight drachms in quarts. It is esteemed much of a hardship on the glass blower to be compelled to conform to these requirements even in the larger sizes. In view of these facts, it will be seen that the proposed allowance of 2 percent variation under the Brooks Law is wholly inadequate.

“Unfortunately, as we view it, a net weight amendment to the National Food and Drugs Act has been adopted by the house of representatives, and, with some modifications, has been favorably reported by the senate committee, to which it was referred. If this amendment is approved of by the Senate and becomes a law, it is highly probable that the majority of the states will adopt similar amendments to the state food and drugs law. We do not think that any such legislation is needed, either national or local, and are glad to see that the National Association of Manufacturers of Medicinal Products has had the courage of its convictions and been bold enough to protest against the application of net weight laws to drugs.

“As a matter of fact, there has been no public demand for the application of the net weight law to the drug business and no abuses have been discovered by those who brought about the enactment of the Brooks law. The drug trade has hesitated to protest in the matter for fear that the public, always prone to believe evil, would assume that the trade objected to the law because it had been cheating the public. If a drug does bear a statement regarding its weight, measure or count, that statement should of course, be truthful. But no additional legislation is required. We have ample laws to care for frauds in this direction. As a matter of fact, no package goods, or almost no package goods, are sold in the drug store by measure and very few by weight. The public pays \$3.50 for a small bottle of one proprietary medicine and 50 cents for a large bottle of another. The value placed upon a remedy by the proprietor and by the public has little or no relation to the size of the package. It might be said that the enactment of the law could do no harm. It will do harm by imposing an additional burden on the state in the matter of salaries for inspectors, commissioners and superintendents charged with the enforcement of this particular phase of the law, and an additional burden on the drug trade of furnishing useless and undesired specifications on the label. The bill should never have been allowed to include drugs and should certainly be amended to exclude them from its provisions.

“Under the net weight law which was enacted as chapter 81 of the Laws of 1912 of Greater New York, all food and drugs offered for sale after February 1, 1914, are required to contain on the label a statement as to the weight, measure or count of the contents. This law applies to proprietary medicines as well as

all commodities in packages which are above three ounces in weight or where the numerical count of the individual units in the package are six or more, or where the fluid contents of the container is two fluidounces or more. Statement of weight, measure or count must appear upon the package itself as well as upon the exterior carton.

"We fail to see any reason for the application of any such law in proprietary medicines. The law is needed, no doubt, to regulate the traffic in foodstuffs, in which the question of quantity is a question of paramount importance. With proprietary medicines, however, there is no direct relation between quantity and price. The packages of proprietary medicines of all kinds vary in accordance with the character of the remedy, the size of the dose and the views of the manufacturer, but when the size of the package is once established that size is adhered to for commercial reasons if no other. The man who buys a bottle of a certain remedy does not know and does not care whether it contains one ounce or ten. His only concern is that he obtains the genuine article and gets the quantity which he has always been accustomed to receive. If the proprietor advertises one hundred doses for one dollar no additional law will be required to make him responsible for his promises as to quantity. But unless he does make some specifications of this kind the consumer will have no interest in knowing the precise weight, quantity or count contained in the package of proprietary medicine which he may buy. The law is objectionable in that it is unnecessary, so far as proprietary medicines are concerned, and makes but one more of a long list of superfluous regulations with which pharmacy is burdened."

SOME NOTES ON THE LA WALL ASSAY PROCESS.

H. W. JONES.

Some time has now elapsed since La Wall published his process for the assay of alkaloidal fluidextracts.¹ During this time we have observed in the literature but one comment upon the process, that being by Sayre,² who applied it to Fluidextract of Gelsemium and obtained excellent results after slightly modifying the procedure.

La Wall's method is as follows:

"Dissolve 25 gm. of sodium chloride in a 100 cc. graduated, stoppered cylinder, in water enough to make 85 cc. Add 10 cc. of the fluidextract to be assayed and then make up the volume to 100 cc. Agitate well for about one minute. Let stand for five minutes; agitate again and pour on a dry filter, collect 50 cc. of the filtrate, representing 5 cc. of fluidextract and shake out with the proper amounts of the appropriate solvents, as directed for the final extraction of the alkaloid."

It is apparent that this process, if successful, would mean a considerable saving, not alone of time, but also of solvents, and these points would appeal to

¹J. A. Ph. A., January, 1913, p. 29.

²A. J. P., May, 1912, p. 193.