The analysis shows that the attempt to produce calcidin tablets was a failure because of the tendency of iodine to react with bases to form iodates and the tendency of the iodates to decompose with formation of iodides, which facts are well known to chemists.

The details of the analysis are given below:

COMMENTS.

Two points are especially worthy of emphasis in the above report by the Association chemists. The first is the old, old story so common in the history of nostrums and "patent medicines," of discrepancies between the extravagant, unscientific and absurd claims made by the manufacturers or promoters and the actual facts as revealed by a scientific examination. Inspection of the advertising matter for calcidin shows that its promoters make the following statements regarding it:

Calcium Iodized, Calcidin (Abbott) is an entirely unique substance, being neither a true chemical compound, nor a simple mixture of its ingredients. Briefly, it is calcium carrying an excess of freely available iodine.

In a circular discussing the nature of the product is this statement:

It is a new compound of iodine and calcium easily broken up when in contact with acids and of remarkable therapeutic value.

Another advertisement states:

Calcidin, Abbott (Calc Iodata) is a unique product. It consists of lime unchanged or modified except by hydration, bearing a definite percentage of available iodine. There is no essential chemical union between the two, neither is it a mere mechanical mixture of calcium and iodine, but by a peculiar (?) process (which is stopped at precisely the right moment [sic]) the lime becomes a carrier for the iodine, which is liberated when the substance is brought in contact with acids in the digestive tract.

It is also claimed that calcidin produces "therapeutic effects entirely different from those obtained from iodine in any other form;" that it is "the most effective and only non-injurious preparation of iodine for internal use," and that it possesses all of the valuable properties of iodine with all of the objectionable effects left out.

This enthusiastic eulogy of the preparation closes with the following climax:

If it is a case in which iodine (divested of all its objectionable features) would be "the remedy of choice" use calcidin and rest assured the result will be satisfactory.

Certainly a preparation possessing such startling and epoch-making qualities is worthy of careful investigation.

It is somewhat disappointing, after having our expectations brought up to such a point, to be informed that calcidin is simply a mixture of iodine, lime and corn starch, and that the results of its administration are exactly similar to those obtained when giving an equal amount of ordinary iodine, calcium iodide and calcium chloride. Had the promoters of this preparation advertised their product as a convenient method of administering a certain amount of these three chemicals, there would have been no ground for criticism. It is a different matter, however, to make extravagant and ridiculous claims of unique and unequalled therapeutic properties, which are not, in any sense, borne out by the facts in the case.

ANALYSIS OF CALCIDIN TABLETS.

2. A one-ounce package of 1/3 grain calcidin tablets was purchased in the open market and the available and total iodine content of the tablets determined.

"Available" Iodine.—The method of estimating available iodine adopted in the analysis of calcidin did not work because of difficulty in filtration, and method (a) was used. Fifty tablets were triturated with water, the mixture was acidulated with hydrochloric acid and the liberated iodine determined with sodium thiosulphate. The end point was not sharp, but less than 1 c.c. of tenth-normal sodium thiosulphate V. S. was consumed, equivalent to .01259 gm. iodine; hence each tablet contains not more than .00025 gm. (1/250 grain) "available" iodine.

Total Iodine.—(a) Fifty tablets were fused with potassium hydroxide. The residue, treated as outlined for the estimation of total iodine in calcidin, required 12.2 c.c. tenth-normal sodium thiosulphate, V. S., indicating .1536 gm. iodine, or .0030 gm. iodine per tablet.

(b) Fifty tablets were mixed with 2 gm. potassium hydroxide and 5 c.c. water, evaporated to dryness and ignited. In this residue the total halogen content was determined gravimetrically, as outlined under calcidin. .2857 gm. silver halide was obtained, indicating .1544 gm. iodine, or .0031 gm. per tablet.

In a duplicate determination, 50 tablets gave .2764 gm. silver halide, indicating .1493 gm. iodine, or .0031 gm. per tablet.

Since each tablet contains .0030 gm. total iodine (average of the three estimations), and liberates on acidulation .00025 gm. iodine, the difference, .00275 gm. iodine, is probably present combined with calcium as iodide. This indicates about 0.0031 gm. (1/18 grain) calcium iodide per tablet.

One other point worthy of emphasis in this connection is that, according to the advertisements of calcidin, the great advantage presented by the use of calcidin tablets is that they contain "free iodine." Calcidin and calcidin tablets are supposed to be practically the same thing, but, as is so often the case in proprietary preparations, the statements made by the manufacturers are not borne out by the chemical analysis. Calcidin tablets are said to contain 1/3 of a grain of calcidin and hence should contain 1/30 of a grain of "free iodine" per tablet. As a matter of fact, each tablet contains only 1/250 of a grain of "free iodine," an amount so small as to be of no practical value, the remaining iodine being in the form of calcium iodide, a substance condemned by the manufacturers of calcidin as practically inert. The advertising matter specially emphasizes the statement that "free iodine" alone is of value and that iodides are practically useless. Such being the case, it is unfortunate that calcidin tablets contain practically no "free iodine" at all and that all of the iodine present is in the form of iodides. In other words, the preparation does not contain the form of iodine which it is claimed to contain, and does contain the form of iodine which the promoters insist is of little value.

The practical lesson to be drawn from the above report is that any manufacturer who makes extravagant claims, or any product which is advertised by means of statements of marvelous methods of manufacture, unique properties, unheard-of chemical contents and the like, is to be viewed with suspicion. Calm statements of scientific and chemical facts are one thing and circus poster methods of advertising are quite another.

Correspondence

Family Records—A Plea for the Systematic Preservation of Exact Data—Answers Desired.

1504 PINE STREET, PHILADELPHIA, Aug. 23, 1907.

To the Editor:—Historians are constantly hindered in their search for truth by the absence of exact records, especially as to the lives of individuals. Nowhere are these kept with completeness and exactitude. Even the courts of law, the county and municipal authorities, make only partial provision for the future in this particular. Even at the present enlightened time recourse is constantly had to the "family Bible," in which the custom prevails to place some account of births and deaths, which gives, at best, only names and ages, with possibly some fragmentary comments on acts. Clergymen do sometimes keep books containing registrations of marriages, births and baptisms, rendering a meager and irregular assistance.

Old-time physicians were accustomed likewise to take account of some such data, also the more careful ones kept notes of illnesses. Not all physicians, even now, take careful notes of cases, or only the, to them, more important ones. All this may be of use when preserved; they too often are lost or destroyed, but at best are manifestly inadequate to make history or settle disputes as to property or other legal issues.

I venture to assert that we physicians would make ourselves a vastly greater power for good, enhance our potentiality in the community, if we should do our duty by contributing systematically to the exactitude of records. At the same time, our duty to our patients would be better discharged and we should earn gratitude even long after we are dead.

I here offer a plan suggested long ago:

To solve clinical problems successfully the physician must possess ample facts of two kinds, present and past. He must ascertain the status of his patient, both to-day and previously. Unless a fair knowledge be acquired of antecedent conditions, the elucidation of the immediate problem can be only imperfect. To minimize the gravity of the earlier history is to fall into errors and invite blame. The public is quick to criticize our sins, not only of commission, but especially of omission. They demand, naturally, that we shall be able to tell them correctly what is amiss now; also we are constantly forced to prophesy, and a future is dark without adequate light from

antecedent facts, however much skill we may possess in interpreting the phenomena of Nature and her complex derangements. Some physicians may have the gift of divination, but so rare is this that the only safe course is to be armed by all attainable, all relevant, incidents. Then and then only, can we draw rational inferences or make exact deductions.

In the conduct of any large business one of the primary requisites is a knowledge of all obtainable collateral facts. No business man will blame an employé for errors committed if the cause is clearly absence of information essential to the understanding of the problem. In every well-regulated business office it is customary to devote a large part of the office force to the securing, sifting, systematizing of facts, direct and indirect, and placing them ready to hand. Success is recognized to follow in proportion as this data is adequate, and wisdom is exhibited in its prompt utilization. The laity criticize us sharply and justly for our lack of consistency in views on related subjects, diversities in belief as to causes, phenomena, progress of human derangements; above all, for seeming contrariness in selection of remedies, and guesswork as to finalities.

Yet it is by no means all our fault that medicine can still be termed inexact. Despite centuries of effort, we still lack many fundamental facts. The public should be made to know that research workers in medicine are estimated by experts in other scientific lines to have contributed more to the sum total of human knowledge than the aggregate of all the other exact sciences.

The chief obstacle in solving clinical problems lies in the absence of adequate case histories.

To remedy this, I would propose the very general employment of family case-history books. These should be simple yet complete in their arrangement, with clear, exact directions for use by parents, physicians and others. Physicians should be able to buy them cheaply in quantity and supply them to all the families they attend gratis, or for a small sum. If this were done, or wherever done, there would be at least a more or less satisfactory record kept of happenings, peculiarities, data on growth, development (mental and physical), accounts of ailments, illnesses, in sequence. When the medical attendant is confronted by the problem of an ailment he would be able, by consulting this record, to obtain invaluable light on many otherwise obscure points. To depend on the memory of parents, or the records of other physicians, is far from satisfactory. It would not be long before all intelligent people would adopt the custom. The records would thus be entirely private. When a family transfers its confidence from one physician to another, it is often most difficult to secure cordial cooperation and comparison of notes. Whenever a specialist is needed he may desire information of a sort not to be had at all. Such a family record could be so devised, by the help of specialists in different lines, as to supply much thus required.

In the taking of histories of children the burden will fall naturally on the mother or other near relatives. It can be best done coincident with the occurrence of notable circumstances, but is most feasible while the facts are fresh in the memory. Invaluable records have been made by parents which furnish data for child-study, comparative psychology, developmental stages, and many similar researches.

The family physician is the one whose duty it is to oversee the members of a family whenever, in his judgment, there is necessity, to watch growth, to confer on subjects consonant with his official connection. Whenever he visits the family and makes observations, the book should be submitted to him to make notes.

During severe or protracted illness, when a trained nurse is employed, the records should be kept in this book. In the interest of exactitude, there should be certain pages of blank anatomic diagrams, such as are used in hospitals and by careful clinicians, on which can be marked the site of lesions of chest, of heart, or other parts.

Details of form and character need not be given here. I consulted a publisher as to the wisdom of issuing some such systematic inexpensive case-record book. He is of the opin-

ion that "it might not pay." My purpose is to beg an expression of opinion from as many as possible and then to form practical conclusions. Would not such data prove of high value to physician, families and perhaps even to historians as well as lawyers? Postal card replies will suffice.

J. MADISON TAYLOR.

Milk Supervision and Certification by County Societies.

JACKSON, MICH., Aug. 28, 1907.

To the Editor:—Enclosed find our scheme for obtaining pure milk, which is self-explanatory. As you will notice, our plan is somewhat different from the usual one of certifying the product from only one dairy. Any dairyman who will comply with our rules and furnish a product meeting standard requirements as to bacterial content and food elements may have our certification. The scheme has already secured good results.

C. G. PARNALL.

[The work to which Dr. Parnall calls attention is being done through a committee appointed by the Jackson County (Mich.) Medical Society. A circular and a card of application for certification are sent to the dairymen. The former embodies the most important recommendations and measures for producing clean milk, requiring the dairyman to agree to inspection by the committee and to abide by its rules and regulations. Any case of communicable disease occurring in the household of any person engaged in handling the milk or milk utensils must be reported at once to the committee. The rules also require cleanliness of the cows and stables; the latter are to be white-washed at least once a year. The water supply must be uncontaminated and a separate, clean milk house provided, which must be used for no other purpose. The milkers must not have any communicable disease, must wash their hands before each milking, and the utensils must be kept scrupulously clean. The milk from diseased cows must not be shipped; the milk must be strained in the milk house only; it must be cooled below 55 degrees, and no preservative, coloring or other adulteration is to be permitted. Then follow the detailed recommendations of the health department of New York City as suggestions. These suggestions treat the subject of production of clean milk with considerable detail and must certainly be of great value to dairymen who wish to improve the quality of their milk to meet the demands of sanitary science. The application card binds the dairyman to permit inspection and the taking of reasonable samples and to abide by the rules of the committee. This work is excellent and ought to be imitated by many other county societies. It is such an enterprise as this that compels recognition by the public.]

Miscellany

Arabian Contributions to Medicine.—In a letter to the *Boston Medical and Surgical Journal*, Dr. E. T. Williams, Roxbury, Mass., refers to Dr. Osler's recent statement that the physicians of the Arabian school made no solid contributions to anatomy or physiology, and says that while this is undoubtedly true, yet the Arabians made valuable contributions to science. Geber, in the eighth century, discovered arsenious acid and corrosive sublimate. Albucasis, in the twelfth century, discovered alcohol and the art of distillation. Alhazan of Cairo, in the eleventh century, wrote a valuable treatise on optics and described the properties of lenses. Rhazes of Bagdad, in the tenth century, gave the first accurate description of smallpox; Avicenna, in the eleventh century, described malignant pustule, and Avenzoar of Seville, in the twelfth century, gave a description of the itch. We owe to the Arabians the methodical use of opium as a remedy, which, though used by Dioscorides and some of the Grecians to a certain extent, was apparently unknown to the Galenists. They also used mercury, which was first made known to the Europeans as a medicine by the Moors and Saracens, was adopted by Guy de Chauliac and Paracelsus and formed the chief ingredient of the prescription sold by Barbarossa, the corsair of Mitylene, to Francis I to cure his pox. We can not, says Dr. Williams, date a letter without the Arabic nu-