VOLUME 19 No 5
MAY, 1956

Journal of

MILK and FOOD TECHNOLOGY

Official Publication

International Association of Milk and Food Sanitarians, Inc.

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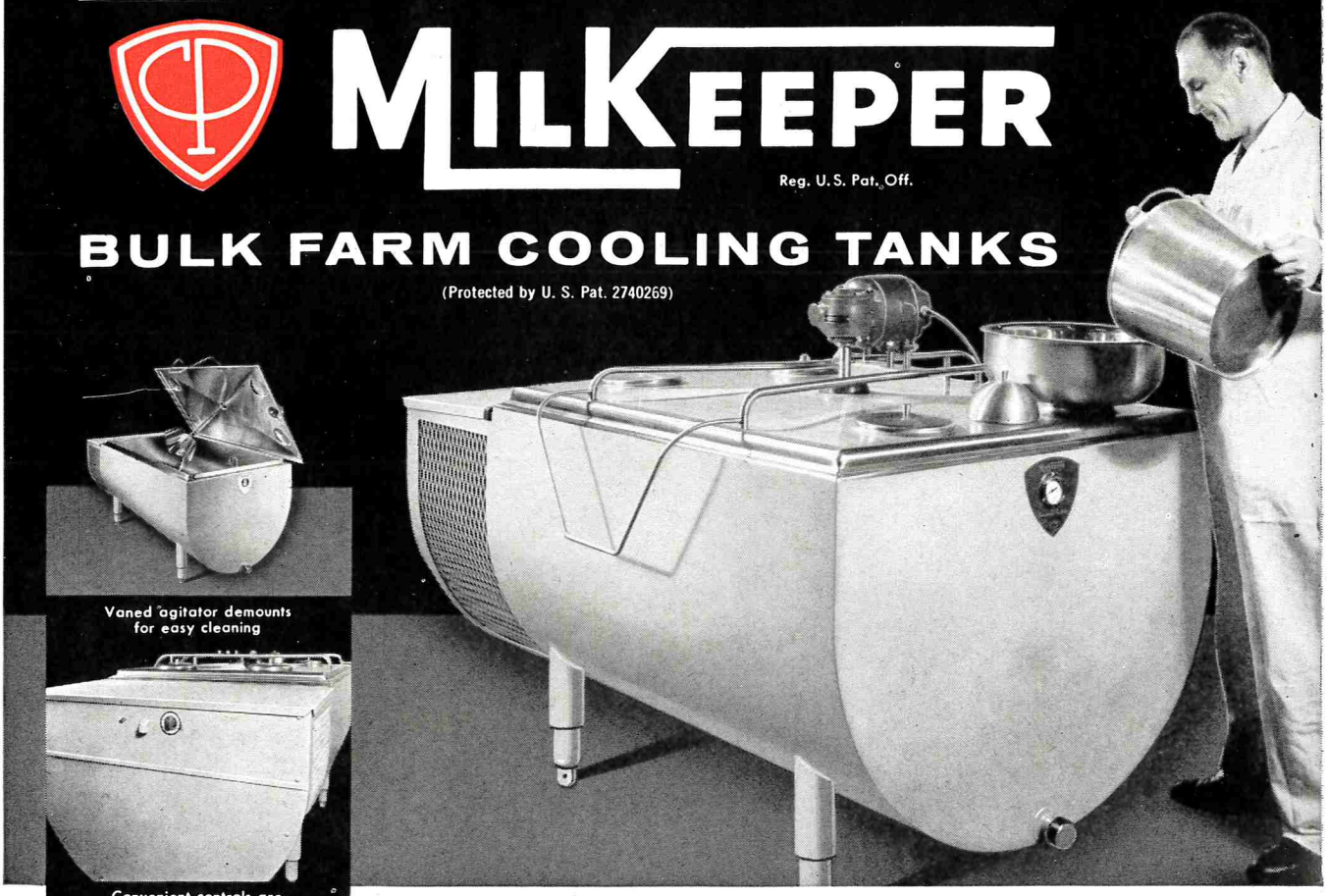
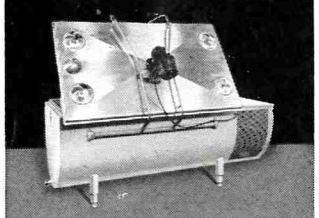


Vaned agitator demounts for easy cleaning

Convenient controls are mounted for easy viewing



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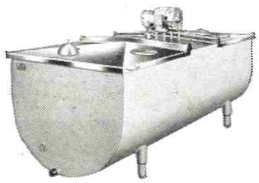

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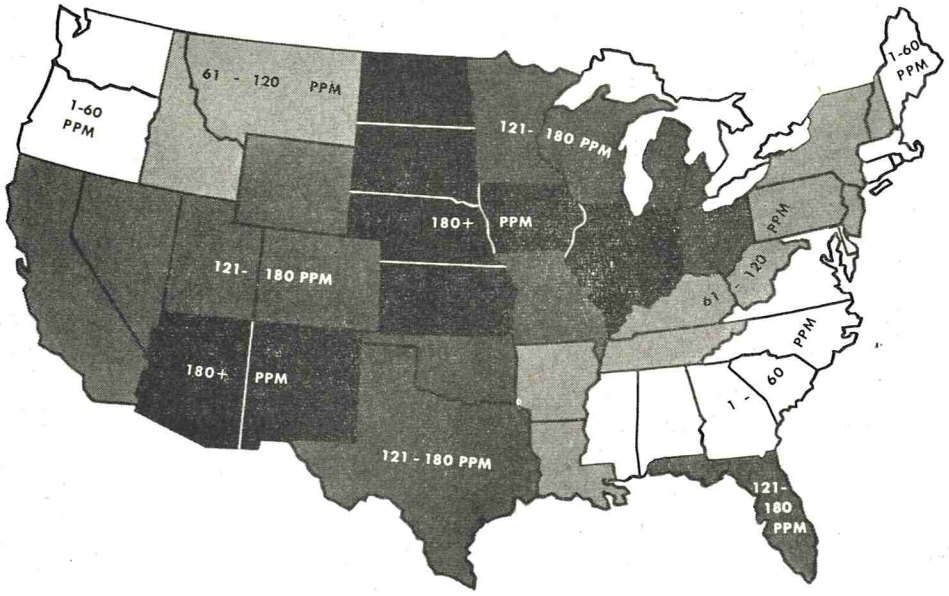

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FOR SALE: Single service milk sampling tubes. For further information, please, write: Bacti-Kit Co., 2945 Hilyard Street, Eugene, Oregon.

WANTED retail sales outlet for new inexpensive dairy utensil and farm tank chlorinator by spray method. Bacti-Kit Company, 2945 Hilyard Street, Eugene, Oregon.

ACTIVITIES OF THE FOOD INDUSTRY ON A NATIONAL SCALE[1]

PAUL V. SHANK

The Tiffin Dining Room, Denver Colorado

The officers and the members of this Association are to be congratulated on this meeting. Those present here today show their interest in a mutual understanding and unity of thought for sound progressive evaluation of the problems pertaining to the achievement of sanitation and good wholesome food in public establishments. Food service operators believe that they have much more in common than they have in competition with each other. Milk and food sanitarians, too, have many common problems.

The restaurant industry is composed of more than 500,000 small, independent operators spread out all over America. This industry prepares and serves one-fourth of all the food consumed in America. It is big business; in fact, America's fourth largest industry. This is important—important to milk and food sanitarians as guardians of the public health and doubly important to those who operate the industry, because theirs is also a tremendous responsibility.

Most, but not all, restaurant people understand this. They are interested in the problem and they, too, are to be complimented for the actual time and effort they put forth cooperating with public health people towards the accomplishment of satisfactory industry standards.

"Good food for good health" is the finest slogan ever projected for the food service industry, and if good food is important, sanitation is doubly important because sanitation is reflected on every plate of food that is served.

The restaurant industry has the highest mortality rate of any industry in America. In the opinion of many, poor sanitation is a greater contributing factor than poor food. The National Sanitation Foundation hits the nail on the head when it states, "Sanitation used to mean a way of surviving—today it means a way of thriving."

Before going farther, a word of approbation would seem in order concerning the splendid job of cooperation in inspection and food protection that we, of the restaurant industry here in Colorado, have received from sanitation people in the past decade.

It is just about ten years now since Mayor Quigg Newton brought to a tired, dirty and war-weary Denver a wonderful sanitarian by the name of Lewis Dodson. Mr. Dodson came here with a somewhat new approach to the problem—a theory that true sanitation can only be achieved by those who understand the problem and thereby become sanitation conscious. In other words, the educational approach.

First, the owners went to school—listened—learned—and, to their surprise, enjoyed it. Then came numerous classes for the employees. And the owners watched with amazement while their employees, too, listened and learned and enjoyed it.

Ten years ago, Denver's Public Health rating was among the Nation's lowest. Mr. Dodson has long since moved on to other fields, but his approach lives on. His successors have followed more or less the same pattern of thinking, with the result that Denver's Public Health rating today is a very commendable 80 per cent.

Mr. Paul V. Shank has worked in just about every job possible in a food establishment. About ten years ago he "graduated" from a cooking job to the ranks of restaurant operators—when he took over an old mansion that is famed from coast to coast today as the Tiffin, one of Denver's finest restaurants.

Active in civic affairs and an untiring worker both on local and national levels, Mr. Shank has served in most of the offices and on a great many committees of the Colorado-Wyoming Restaurant Association. He was president of this association from 1949 to 1951. He is also a director of the Denver Convention and Visitors Bureau and three years ago he was elected a director of the National Restaurant Association.

[1]Presented at the Annual Meeting of the ROCKY MOUNTAIN ASSOCIATION OF MILK AND FOOD SANITARIANS, December 14, 1955 at Denver, Colorado.

The restaurant industry is particularly partial to the educational approach. Not all operators can afford all of the equipment and facilities that health officials would like to see in their places, and while all these things are certainly much to be desired, it is felt by industry that the greatest factor in sanitation is well trained, well directed, sanitation conscious personnel.

Undoubtedly everyone knows that sometimes operators with elaborate facilities do an unsatisfactory job, while others with little to do with achieve a very satisfactory rating.

Now a little background information is in order on the National Restaurant Association which is recognized as one of America's greatest and finest managed trade associations. Its more than 7,000 members represent a large percentage of the $16 billion annual volume our industry grosses. In addition, it is affiliated with almost every state and local restaurant association in the nation, making it truly representative of the industry.

The National Restaurant Association is governed by a board of 42 directors——progressive operators, men and women from all over America. Every type of operation is represented and area representation is determined by population. To qualify for membership on the board, a person must first establish a reputation for leadership in his own community, must participate actively in local civic affairs, and must be a top-flight operator with a reputation above reproach.

President this year is Mr. Marion Isbell, owner of three outstanding operations in Chicago. To become president of the NRA, the person must be in a position to travel for a full year in the interest of a better food service industry.

Headquarters of the NRA are centrally located in the Willoughby Building at 8 South Michigan Avenue, Chicago, Illinois.

Executive Vice President and guiding light for the past twenty years is Frank J. Wiffler, the man whose genius for organization and leadership is largely responsible for the nationwide position of high esteem the NRA enjoys today.

Foremost in its activities is the great national convention held annually in the month of May at Navy Pier in Chicago. This show is the largest of its kind in America. Registration at last year's show was more than 31,000 people. There were more than 900 exhibits by purveyors to the industry, representing over four miles of new ideas and visual demonstrations.

Sanitation people who are interested in new equipment and better tools are cordially invited to visit the show. Admission to sanitarians is free. The show is both interesting and educational and is five years ahead of the parade.

The staff at NRA headquarters is divided into five departments: public relations, educational, research, legal and membership.

The department of public relations is headed by Mr. Ralph J. Peterson. Of interest is the fact that his department has established a large library of films, some of them valuable training films, which are available for the asking. Another outstanding recent achievement of this department is the establishment of a large fund for the advancement of a vast program of cooperative industry advertising and trade promotion.

Outstanding national purveyors to the industry were recently approached with the idea that a campaign encouraging more people to dine out would be to their interest. The idea was enthusiastically accepted, with the result that it is conservatively estimated that in 1956 more than $5 million will be spent by these people in the interest of trade promotion for the food service industry.

Among participants to date are General Foods, Kraft Foods, H. J. Heinz Company, International Silver, Standard Brands, Borden Company, the American Gas Association, the Coffee Brewing Institute and the National Tea Council.

By now, everyone is probably familiar with the "Greatest Guy in the World" series appearing in the Saturday Evening Post. The "Greatest Guy in the World" has a halo over his head. He takes his whole family out to dine! This campaign is sponsored wholly by General Foods and is just one example of the things that are being done today for our industry.

Of interest too is the outstanding work of Miss Kathryn Bruce, head of the Educational Department.

Among the recent achievements of this department are a series of down-to-earth stories about the adventures of a fellow by the name of Mr. Biggers. Mr. Biggers has been in the restaurant business for a long time—perhaps too long. He is getting old and tired and he has lost his enthusiasm. To cap it all, he is in serious trouble with the health department. Happily, Mr. Biggers has courage to recognize the situation and as the story continues, he is improving. It's a great series and anyone interested is invited to write to Miss Bruce for the complete set.

The Educational Department is also responsible for a Careers for Youth program beamed at the high school and college level. This is a vigorous campaign to inform the youth of our nation of the potentials and desirability of entering into a career with our industry. This is one phase of the program which has been badly neglected. The results so far are gratifying.

The Department of Education supplies the outline and instructors for a short course on modern restaur-

ant problems, a comprehensive three-day seminar which is being featured annually at many leading universities. Preliminary plans are being made to hold this course at Denver University in 1956.

The NRA's Department of Food and Equipment Research is headed by the inimitable Colonel Paul P. Logan. Colonel Logan's career includes a lifetime of work on food and equipment research for the US Army. For the past ten years, he has devoted full time to our problems. A new research center for his department is now under construction at Michigan State at East Lansing. Colonel Logan is credited with having more technical information on the subject of food and equipment research at his fingertips than any other man in America.

Chairman of the Research Committee is Mr. Joseph Schensul of Kalamazoo, Michigan. Briefly, here are a few of the current projects under study by that committee: Development of an automatic tea brewer which dispenses hot tea from one faucet and iced tea from another; intensive research on the new radar range; development of an acceptable thermostatic control for our industry; standardization of sizes of cooking utensils; food testing and many other things.

The Legal Department is headed by Mr. Armin Kusswurm. Mr. Kusswurm, incidentally, also is secretary of the NRA. His full time is spent exclusively on industry problems and his expert counsel and advice is a free service to members of the Association.

A full time office is maintained in Washington, D.C., for the use of the Government Affairs Committee. This committee has been headed for the past 20 years by the astute and highly regarded Admiral George LeSauvage, an executive of the Frank G. Shattuck Company, operators of the Schrafft's Stores in New York. Admiral LaSauvage is 80 years young, yet today he displays more vim, vigor and vitality than most people many years his junior. His department has always achieved a very satisfactory relationship with the powers that be in Washington and the list of his accomplishments is without parallel.

Heading the Membership Department is the affable, inimitable, Phillip D. (for dues) Johnson, author, lecturer, good-will ambassador and self annointed expert on public toilets.

The directorate is divided into many sub-committees too numerous to mention here. But, because of its special interest, mention should be made of the work of the NRA Public Health Committee. Its chairman is the brilliant Cyril L. Kegler, president of the popular and prosperous Bishop-Stoddard chain of cafeterias operating through the Midwest with headquarters in Cedar Rapids, Iowa. Mr. Kegler, incidentally, is responsible for a training manual for restaurant personnel, the only such document ever published. In a quiet, unassuming way, Mr. Kegler has contributed much of his time and money in the public interest. Too many nice things cannot be said about this man.

In 1953, principally through the efforts of Mr. Kegler and his NRA Public Health Committee, the National Food and Beverage Council was formed. Its specific project was to work in conjunction with the National Sanitation Foundation and its broad purpose was "to solicit public understanding and individual practices of good sanitation wherever food and drink are prepared and served—at home, in the school, factory or office, hotel, restaurant, motel, tavern, church, club or picnic grounds."

In order to understand the National Food and Beverage Council better, perhaps it would be well to answer these three questions:

1. Why was the project started?
2. How was the project started?
3. Who are the people interested and why?

Going back to point Number 1—how did this project come about? There were two basic factors: (a) recognition that industry-wise, little had been done in the promotion of good sanitation and food protection programs, and (b) the almost universal complaint of operators for a unified code of understandable regulations—free from requirements considered of doubtful value. It is fair to say, and this is certainly no reflection, that there is a conflict of opinion, especially in the field of interpretation, among thinking public health people just as much as there is among restaurant people. Would not then a unified nationwide code go a long way toward avoiding confusion and dissatisfaction? Quoting Mr. Kegler from the minutes which he gave at a recent board meeting, he states, "I must say that the best source of a broad understanding of the problem of conflicting regulations is among public health officials themselves. Sitting in with a group of statewide health men of Illinois and again during the many meetings with public health members of our NFBC, I have heard far more pointed criticism leveled at these problems than we of the industry would venture to express. It has, as a matter of fact, been this candid and highly cooperative spirit shown by these men of long experience in public health, that has provided us the continuous encouragement and belief in the eventual success of the Council's objectives."

Point Number 2—how was the project started? With the foregoing industry problems in mind, Walter F. Snyder, Director of the National Sanitation Foundation, was approached with this question, "Is it possible to get top level health people together with top level industry people for the purpose of developing a new recommended code and ordinance, and related

regulations and requirements?" This new code and ordinance would actually be a set of rules controlling sanitation in public eating places, based upon scientific laboratory tests or joint judgement of the group—one which by reason of the document would be a product of all, understood by all, believed in by all, and would be wholeheartedly supported by all. The response was favorable. The plan, fitting in as it did with the initial purpose of the National Sanitation Foundation, was soon under way. A representative group of individuals in industry and public health were contacted and the first meeting was held at Ann Arbor in July, 1953. Thus the NFBC was created —a specific project of the National Restaurant Association in which many other interested groups have joined hands.

Point Number 3—who are the people involved in the Council and who do they represent? Included are top industry men from all over America and many leaders of the public health service, including John D. Faulkner, Chief of Milk and Food Branch, Division of Sanitation, US Public Health Service. Co-chairmen for the Council are: Walter F. Snyder, Executive Director of the National Sanitation Foundation; John D. Faulkner, US Public Health Service, and Cyril L. Kegler, Director of the National Restaurant Association and, as mentioned above, chairman of the NRA Public Health Committee. Its ten member Executive Committee consists of five outstanding Public Health officials and five equally outstanding leaders of the National Restaurant Association; including Executive Vice President Frank Wiffler; Chief Legal Counsel Armin Kusswurm; Past President William O. Wheeler; John O. Sabatos of New York City, forthcoming President elect, and Director George Hanby.

Five separate committees have been formed. They are Policy, Code and Ordinance, Interpretative Manual, Research and Education. These five committees are co-chairmaned by the ten members of the Executive Committee. Committee members include representatives of hotels, schools, hospitals, drugstores and licensed beverage dealers. Representation is about equally divided between industry volunteers and professional health people.

Of particular interest is the fact that Denver's own Associate Manager of Health and director of his division, J. Robert Cameron, has been an active member of the Council since its very beginning, and presently serves as a member of its educational committee.

Of the conclusions and future plans of the Council, Mr. Cameron can tell you much more. Suffice to say here, that one result of the activities of NFBC has been an invitation to the NFBC to be represented by a committee and to participate in the formation of a new US Public Health Code and Ordinance.

In conclusion, please permit just one observation from the restaurant operator's side of the fence. The duties and responsibilities of food service operators, since they are so many and so varied, are without a doubt as great as those of any other industry. The most perplexing difficulties are encountered in the sanitation division. Very few people make a career of scrubbing floors, washing dishes and pots and pans, even under the best of conditions. Bud Franke, of Little Rock, Arkansas, likes to tell about a conversation he once accidentally overhead between two of his employees. One said to the other, "The war must be over." The other asked, "How come?" Whereupon the first replied, "Because the boss talked back to me today!"

To conclude—there is an old Indian prayer appropriate to both sides of the fence, "Oh Lord, grant me the courage not to criticize my brother until I have walked one mile in by brother's moccasins."

FORTY-THIRD ANNUAL MEETING
HOTEL OLYMPIC — SEATTLE, WASH., SEPTEMBER 5, 6, 7, 1956

AN EFFECTIVE "SINGLE SOLUTION" STAIN

DAVID LEVOWITZ AND MAURICE WEBER

New Jersey Dairy Laboratories, New Brunswick, New Jersey

(Received for publication March 9, 1956)

Editorial Note: A modification of Newman's No. 2 Stain has been developed at the New Jersey Dairy Laboratories. This discription of its preparation and use is given encourage interested laboratories to test it and to report their experiences with it.

A. CONSTITUENTS:

1. Ethyl Alcohol, 95%[a] .....520.0 bl.
2. Tetrachlorethane, technical[b] .....440.0 ml.
3. Acetic Acid, glacial ..... 40.0 ml.
4. Methylene Blue (chloride), Certified 6.0 gm.

[a]Or Formula 3A Denatured (95% ethyl + 5% methyl)
[b]Acetylene Tetrachloride

B. STAIN PREPARATION:

1. Pass the dry dye through a fine sieve or strainer, to insure against caking; then add it slowly to the alcohol and tetrachlorethane in a 2-L. flask. Swirl to dissolve, let stand 12-24 hours at 40-45° F. Then add acetic acid.
2. Filter through paper which retains "fine" precipitates (Whatman No. 42 or equivalent). package in bottles equipped with plastic closures.

C. SLIDE PREPARATION:

1. Apply Bon Ami (powder or cake) lightly, using a moist cloth or sponge pad, to the surfaces of new slides or thoroughly washed old slides. After the Bon Ami has dried thoroughly, wipe it off with a clean, dry (oil free) chamois or cheesecloth.
2. Flame each slide and store in a dispensing cabinet which prevents free access of air. If such a cabinet is not used, flame the slide and let it cool to room temperature immediately before applying samples. (This routine insures slides' surface being properly receptive to smears).
3. Prepare a convenient slide-drying cabinet (a large index card file box is satisfactory) by (a) perforating ends to permit air circulation; (b) mounting a glass shelf level, under the top, and (c) installing a small bulb (15 or 25 watt) to keep the glass at not over 125°F. (Check with Tempilstik; do not use area which warms above 125°F.)

D. SLIDE STAINING:

1. Dry smeared slides rapidly (on the shelf in the cabinet); cool to room temperature, then immerse in the stain for 2 minutes. Drain off excess stain by resting slides on edges on absorbent paper. Dry thoroughly – preferably by forced air from blower or fan.
2. Rinse dried, stained slides in three changes of tap water at 100-110°F., then dry them thoroughly and rapidly.

E. ADVANTAGES OF THIS STAIN AND METHOD:

Whether the sample is a raw or pasteurized (unhomogenized or homogenized) milk or cream—

1. The stain is retained lightly and very uniformly by only the milk protein. There is no "mottling" or "network effect" on the background which is tinted enough to reduce eyestrain and fatigue and to make focussing easier, but not enough to keep any cellular constituents from standing out in bold relief.
2. The outlines of almost completely plasmolyzed microorganisms retain the stain sufficiently to be distinguished readily; cells exhibiting lesser degrees of plasmolysis are stained more heavily. Unplasmolyzed organisms are colored strongly.
3. The cytoplasmic portions of body cells are distinctly darker than the background with cell outlines well defined. Nucleoplasmic areas are stained deeply but individually differentiated (with no "mossy" effect), so that primary leucocyte classification into myelocytes, young and mature polymorphonuclears, etc., is accomplished directly without employing differential stains on special smears.
4. Smears remain fixed even if rinsing is energetic—will not slough off. Smears continue to be firm, when treated with fat-solvent to remove immersion oil. Neither crystals nor dye particles, which might obscure the preparation and prevent its proper examination, will ever form.

ORIGIN OF THIS SYSTEM:

1. Newman's procedure, when followed, results very frequently in (a) loss of smears at rinsing; (b) obliteration of large smear areas by crystal formation and dye precipitation; (c) such deeply colored backgrounds that only heavily stained cellular units can be seen; and (d) mottled backgrounds whose darker areas cannot be examined at all.
2. Newman's stain, as published, was not suitable for our use. However, the principle of defatting, fixing and staining by one solution, in which decolorizer was also incorporated, to

(Continued on Page 127)

REPORT OF THE COMMITTEE ON ORDINANCES AND REGULATIONS PERTAINING TO MILK AND MILK PRODUCTS—1955[1]

This Committee is still promoting uniformity and is still of the opinion that if we are to have the continued movement of milk from surplus to deficit areas, that is is essential to promote uniformity of regulations and the enforcement of them, to promote and guard the health of our nation and the welfare of the dairy industry.

As in the past, the committee has solicited and invited comments on ordinances and regulations, as to their practicability, feasibility, and their enforceability and also the advisibility of changes in the ordinance requirements. We realize it is only through the comments and suggestions received from the various segments of the industry whether they be regulatory agencies, producers, or processors, that any progress can be made toward uniformity in the rules and regulations which govern the industry and the enforcement of these regulations.

This committee is very desirous to have the cooperation of these various segments of the industry in promoting uniformity and a more complete understanding of the problems involved in the enforcement of regulations guarding the industry.

Members of the committee were asked to solicit and make inquiry of the members of the industr in their particular area. The suggestions that were received were submitted to the membership of the commitee and are part of this report.

Frozen Dairy Foods

One of the major jobs of this year was submitting of the Frozen Dairy Foods Ordinance to the Frozen Food Sanitation Committee for their review, the frozen food sanitation committee reviewed the suggested ordinance and made certain suggestions which are incorporated into the ordinance and this ordinance with the changes were submitted to the Committee on Ordinances and Regulations. This committee felt that these suggestions were worthwhile and are incorporated into the ordinance as received. Therefore, the ordinance as reviewed by both committees is herewith submitted and becomes a part of this report; but it will be resubmitted to the two committees and to all other interested people for further approval before the final draft will be submitted to the organization.

Comments on Ordinance Requirements

The following problems were sent to the Committee: One of these problems was the feasibility of having the labeling requirements of Dairy Products conform to a single standard; that the requirements of the Public Health Service be adhered to or that the requirements of the Food and Drug Administration be adhered to since the requirements of these two organizations are frequently different, or that the differences in the labeling requirements of the two organizations be reconciled and a single uniform set of labeling requirements be established for use by these two organizations.

The majority of the committee members replying to the proposition felt that it would be wise if the requirements were the same; but there was some difference of opinion as to how this should be affected.

The second question submitted to the committee deals as much perhaps with the Applied Laboratory Methods Committee as with the Committee on Ordinances and Regulations. This question has had some discussion throughout the country in the past; but it apparently continues to crop up and apparently is one that needs further work done upon it by the various people involved. This question is that of Optimal Incubation Temperatures for Standard Plate Counts.

A large purchasing agency has instructed its laboratories to purchase and use only the 32°C. temperature for incubating its plates. Some segments of the industry object to this temperature since many of the health departments use the 35°C. temperature for incubating plates. So apparently this question is still being brought up in various parts of the country.

The majority of the committee members felt that one temperature is desired but there was no decision as to what the temperature should be. This committee wishes to submit the question to the Applied Laboratory Methods Committee for further delineation to determine the advisability of one temperature and what that temperature should be.

The third question submitted to the committee is very similar to the second one in that it has to do with Applied Laboratory Methods Committee. This question is one dealing with coliform counts. The question as received is as follows:

"The U.S. Public Health Service Ordinance and Code requires that milk shall contain not more than 10 coliform organisms per ml. on a 3 out of 4 basis. Standard Methods considers a count of colonies on solid media a positive presumptive test."

Therefore the question arises in routine enforcement —is it necessary to run confirmatory tests? If not— should we recommend that the ordinances require the use of only the count on solid media?

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[1]Presented at the 42nd Annual Meeting of the International Association of Milk and Food Sanitarians, Inc., at Augusta, Georgia, October 4-6, 1955.

The majority of the committee members replying to the question felt that it is not necessary to run confirmatory tests on all samples where a solid media was used but was necessary only on occasions where any serious question arose such as colony identification or for high coliform densities, etc.

One of the members stated that they had started out confirming all solid media counts and noted non-confirmation of solid media coliform counts was so insignificant that they have discontinued the use of confirmatory tests all together and are using only a solid medium count for coliform tests on milk samples.

We would also like to submit this question for further consideration by the Applied Laboratory Methods Committee.

W. R. McLEAN
CHARLES HOLCOMBE
DAVID H. EVANS
EDWARD SMALL
C. V. CHRISTIANSON
C. A. GHIGGOILE
GEORGE W. MARX
STEPHEN J. WOLFF
KEITH A. HARVEY
B. D. WHITEHEAD
C. J. BABCOCK
W. A. HOSKISSON, *Chairman*

REPORT OF THE COMMITTEE ON BAKING INDUSTRY EQUIPMENT[1]

The Baking Industry Equipment Committee was set up for 1955 as a separate committee, whereas, it previously had been a part of the Food Equipment Committee.

This action was taken because of the growing bakery sanitation field and its need for specialized machinery as well as specially trained personnel.

The baking industry, realizing that much of its equipment was old and poorly designed, from a sanitarian's viewpoint, and also concerned with the growing activity of health officials in the baking field, had in 1949 set up their own committee known as the Baking Industry Sanitation Standards Committee (BISSC). The purpose of BISSC is to formulate standards for the various pieces of equipment used in the bakery field. Under the chairmanship of Lloyd Barron and with Raymond Walter as Secretary and Treasurer, BISSC has done an admirable job.

The Baking Industry Equipment Committee chairman acted as the International Association of Milk and Food Sanitarians representative to BISSC. As of September 1, 1955, the following standards have been published since the last report made on August 13, 1954:

No. 8—Bread Moulders
No. 9—Dividers and Rounders
No. 10—Ingredient Water Coolers
No. 11—Proof Boxes, Fermentation Rooms and Coolers

It is recommended that the new standards be endorsed by the Association.

As you will note, the Proof Boxes, Fermentation Rooms and Coolers Standard is numbered 11. Starting with Standard No. 1, published in 1952, which was Flour Handling Equipment, and going on through in numerical order the following standards have been previously published:

Dough Troughs
Mechanical Proofers
Pan, Rack and Utensils Washers & Industrial Sinks
Cake Depositors
Fillers & Icing Machines
Horizontal Mixers & Vertical Mixers
Conveyors

Due to the rapid technological advances, particularly in plastics and metallurgy, the last few years, many of the previously published standards are in need of revision. This is not unexpected, as it is felt that a periodic review of all standards should be a permanent duty of BISSC as well as of this committee.

The baking industry, along with other food processors, are in the midst of a revolution concerning bulk handling of ingredients. The day of the cloth or paper bagged white flour is quickly disappearing from wholesale baking operations. Bulk handling of ingredients such as tank cars and trucks carrying flour, liquid sugar, corn syrup, honey, etc., directly to the plant and then being transferred to bins and vats entail many problems and much work before adequate standards can be formulated. This committee will endeavor to work in close association with the Food Equipment Committee, particularly as to bulk handling equipment standards, and it is recommended that the chairman, William Hickey, of the Food Equipment Committee be present at the next BISSC meeting to work in conjunction with the Bakery Equipment Committee members.

One of the main problems for the coming year is to eliminate the breach between the pan manufactur-

[1]Presented at the 42nd Annual Meeting of the INTERNATIONAL ASSOCIATION OF MILK AND FOOD SANITARIANS, INC., at Augusta, Georgia, October 4-6, 1955.

ers and the sanitation consultants in regard to the merits of the single piece bread pan versus the conventional folded-end bread pan. There is at the present time no agreement on what constitutes an easily cleanable bread pan or on a bread pan that meets basic sanitation requirements as to construction.

For that matter, the actual need for such a pan is questioned by most of the pan manufacturers and most of the baking companies. Their thinking is basically economic as the baking industry along with other industries is faced with increasing costs of operations and there is always the danger that they will price themselves out of the market.

Then too, washing of bread pans is done only at extended intervals and is an elaborate procedure. The bakeries that are using glazed pans usually have their pans sent out to a company that specializes in the removal of the glaze and re-glazing of the pans. The pans are necessarily out of operation for anywhere from one to several days which of course means that a large inventory of pans must be carried to maintain production.

In the case of companies greasing their pans, the boiling out and subsequent burning out procedure is slow and the number of pans that can be handled at one time is limited. However, research on this problem is being carried on now and some preliminary findings should be available at the next meeting of BISSC. It is anticipated that through the results of this and subsequent research a bread pan standard will be written in the near future.

VINCENT T. FOLEY, *Chairman*
W. R. MCLEAN
RICHARD S. DOUGHTY
LOUIS W. PICKLES
ARMIN ROTH

REPORT OF THE COMMITTEE ON SANITARY PROCEDURE—1955[1]

In order that the membership of the Committee on Sanitary Procedure might be more representative of a larger number of geographic areas, the Executive Board urged enlargement of the Committee, by presidential appointment of six new members. These are:

John Culp, Chief Milk Sanitarian, Bureau of Public Health Engineering, Georgia Department of Public Health, Atlanta, Ga.

David H. Evans, Chief Inspector, Bureau of Food and Drugs, Texas Department of Health, Austin, Texas.

Wilbur Kempa, Dairy and Milk Inspector, Department of Health, Regina, Saskatchewan.

Ben Luce, Milk Sanitarian, Washington Department of Agriculture, Olympia, Wash.

Samuel O. Noles, State Milk Consultant, Florida State Board of Health, Jacksonville, Fla.

D. B. Whitehead, Supervisor, Food and Milk Control, Mississippi State Board of Health, Jackson, Mississippi.

Shortly following the 1954 Annual Meeting, Ivan Van Nortwick resigned from his position as President-Elect and membership on the Committee, thus leaving the Committee membership at eighteen, inclusive of the chairman and Executive-Secretary H. L. Thomasson, member ex-officio.

The Committee has participated in two joint-meetings on 3-A Sanitary Standards since the 1954 Annual Meeting of this Association. The first was held at the Georgian Hotel, Evanston, Illinois, on November 10-12, 1954. Eight members of the Committee were in attendance. The second joint-meeting was held at Kenwood Country Club, Bethesda, Maryland, on April 26-28, 1955. Nine Committee members attended that joint-meeting. Five members attended both joint-meetings.

Although the agenda of both joint meetings were voluminous, the number of sanitary standards agreed upon since the last Annual Meeting has been small. These 3-A Sanitary Standards have been published, as follows:

1. 3-A Sanitary Standards for Inlet and Outlet Leak Protector Plug Valves for Batch Pasteurizers. J. Milk and Food Tech., January, 1955, p. 17.
2. Supplements Nos. 3, 4, 5 and 6 to 3-A Sanitary Standards for Thermometer Fittings and Connections Used on Milk and Milk Products Equipment. Ibid, September, 1955, p. 226-232.
3. 3-A Sanitary Standards for Manually-Operated Bulk Milk and Milk Products Dispensers, Multi-Service Milk Containers and Dispensing Mechanisms. Ibid, September, 1955, p. 233-235.

The rate at which 3-A Sanitary Standards are being brought to completion is disappointing to numbers of sanitarians — particularly administrative sanitarians who are called upon to draft sanitary standards for local application, but wish to adhere to 3-A Sanitary Standards. In some instances sanitary standards of state or municipal application have been promulgated in advance of the publication of 3-A Sanitary Standards, thus nullifying the principal advantage of 3-A Sanitary Standards — uniformity.

The cause of this situation is neither indifference nor sloth on the part of your Committee — as will be demonstrated. It arises because of two unrelated conditions: (1) the fact that the sanitary standards sought

[1]Presented at the 42nd Annual Meeting of the INTERNATIONAL ASSOCIATION OF MILK AND FOOD SANITARIANS, INC. at Augusta, Georgia, October 4-6, 1955.

pertain to a type of arrangement of equipment toward the use of which a decided trend has recently developed, and (2) the manner of operation of the equipment is of greater significance in the results achieved than is the design and structure of the equipment. Sanitary standards for the *Installation and Operation of Milker Pipelines Cleaned in Place, and for Manually-Operated Bulk Milk and Milk Products Dispensers* fall into the first of these categories; and sanitary standards for Can Washers fall into the second. Very little experience was available when the Recommended Method for Installing C.I.P. Pipelines in milk plants was first taken under consideration at Glenwood, Springs, Colorado, four years ago; more than two years elapsed before the 3-A recommended method for installation and operation was evolved. As a matter of fact, installations of milker pipelines to be cleaned in place consist of arrangements of various items of equipment, for some – but not all – of which sanitary standards have been developed. Sanitary standards have not been developed for vacuum releaser jars, discharge valves, diaphram pumps, milk cocks, ball check valves, etc., some of which are included in every installation. Some are far more difficult to clean than are the piping and fittings. It appears to your Committee that it is desirable to provide sanitary standards for these features of milker pipelines, before an effort is made to recommend the manner in which equipment shall be arranged and installed. It should be recognized that it is not anticipated that *any* pipeline installation shall carry a 3-A Symbol, placed thereon by the fabricator of the equipment. Nevertheless, your Committee is reluctant to join in sponsorship of a recommendation for assembly and installation of pipeline systems which necessarily include equipment for which no sanitary standards have been adopted.

Although manually-operated bulk-milk dispensers have been in service for a number of years, their design and construction has been of relatively incidental interest and concern to milk sanitarians until quite recently. Four distinct aspects are involved in the formulation of sanitary standards for them—the cabinet, the multiple-use container, the single service dispensing tube, and the dispensing mechanism. Several widely differing designs of the latter three features were being accepted by sanitarians when sanitary standards were first submitted for consideration in April, 1954. It is by no means a simple undertaking to draft sanitary standards with sufficient latitude to emcompass a wide range of design, and yet to make them of value as standards. Nevertheless, the pressure for sanitary standards for bulk-milk dispensers has put pressure on the Committee to agree to a draft, to be published in the September Journal, the reaction to which we await with our fingers crossed.

Sanitary Standards for Can Washers were first submitted for consideration at the Cambridge Springs, Pa., joint-meeting, in 1948 – over seven years ago. These sanitary standards have passed through over a dozen revisions, but will not be considered by this Committee at the coming joint-meeting in November. Experience gained in reviewing the numerous proposals made in these several revisions of these tentative sanitary standards has convinced the Committee that sanitary standards for the design and construction of a mechanical device such as a can washer can not assure effectiveness of function – in this instance the delivery of satisfactorily cleaned cans. Speed of operation, nature and temperature of wash solution, steam pressure, and other factors beyond the control of the washer fabricator, are also determinants of the effectiveness of the washing operation. We are convinced that sanitary standards for mechanical equipment-cleaning devices should be restricted to dimensions of solution and rinse water tanks, minimum capacities of pumps, substantial and durable construction, ease of access for cleaning and maintenance, and such other pertinent features which have by precedent been included in other 3-A Sanitary Standards.

This digression is in the nature of an imposition upon the Program Committee, since it is only incidentally a report of Committee activity. It has been made for the purpose of acquainting the Association membership with a few of the problems which confront the Committee, and to bespeak a degree of tolerance for our failure to resolve them as promptly as you and we would prefer.

In this connection, it is a matter of record that individual members of the Committee have, in addition to attendance at the two joint-meetings previously reported, and time devoted to correspondence, attended at least eight sub-committee meetings, as follows:

December 20, 1954—Meeting on Milking Machine Check Valve Test Procedure, at Cornell University. Attended by Paul Corash, Ivan Parkin, and Clarence Weber.

January 10-11, 1955. Meeting on HTST Pasteurizers, Chicago. Attended by Clarence Weber.

January 20, 1955. Meeting on Can Washers, Chicago. Attended by C. A. Abele.

January 21, 1955. Meeting on Milker Pipelines, Chicago. Attended by James Meany and C. A. Abele.

April 26, 1955. Meeting on Milking Machine Check Valve Tests, Bethesda, Md. Attended by Paul Corash, Ivan Parkin and Clarence Weber.

June 15, 1955. Meeting on Paper Milk Carton Fillers and Sealers, New York City. Attended by Paul Corash, Ivan Parkin and Clarence Weber.

June 29, 1955. Meeting on Can Washers, Chicago. Attended by Clarence Weber and C. A. Abele.

August 8-9, 1955. Meeting on HTST Pasteurizers, Chicago. Attended by Clarence Weber.

The sanitary standards under discussion at these meetings of sub-committees provide an index of the number and nature of those approaching the adoption and publication stage. Agenda already developed for the joint-meeting in Evanston next month provide for consideration of Revisions of the 3-A Sanitary Standards for Storage Tanks and for Farm Cooling Tanks, and consideration of Tentative Sanitary Standards for Evaporators, Paper Container Fillers and Sealers, Factory-Size Separators and Clarifiers, and HTST Pasteurizers.

The committee should be in position, in its 1956 Annual Report, to announce the publication of a larger number of 3-A Sanitary Standards than this Report announces.

This section of this Annual Report would be incomplete without reference to the obligation of the Association to reimburse Committee members for the cost — travel and subsistence — of attending joint-meetings of the 3-A Sanitary Standards Committees. Attendance of members at the last two joint-meetings was less than 50 percent of the total Committee membership. All of the new members, and Mark Howlett, live at considerable distances from the customary sites of joint-meetings. Only once, in a decade, has a joint-meeting on 3-A Sanitary Standards been held in conjunction with an Annual Meeting of this Association. It is hardly reasonable to expect that members of this Committee should devote the time required, *and also* defray from personal funds the expense of attendance at two joint-meetings annually. All but two of the members are employed by public health departments or educational institutions, which are notoriously short of funds allocated for travel outside the State.

Association officers and members have expressed pride in the achievement of this Committee. The Association takes its *full* share of the credit for 3-A Sanitary Standards. The time has come for this Association to recognize that it can not depend on other organizations to underwrite the cost of this Committee activity; and also to realize that, unless provision is made for attendance at joint-meetings of 3-A Sanitary Standards Committees, appointment of representatives from distant sections is largely a gesture. Correspondence is a poor substitute for personal expression of views.[2] The Committee urges that this matter be given serious consideration, and that at least partially remedial action be inaugurated.

It will not be news to the members of this Association that its example in formulating and publishing sanitary standards for dairy equipment is being followed by other organizations — notably the National Sanitation Foundation and the Association of Bakery Sanitarians. Other associations are contemplating such activity.

It is probably inevitable that occasions arise in which two such organizations simultaneously undertake the development of sanitary standards for the same type of equipment; each considering the equipment pre-eminently within its own field of normal activity. For example, bulk milk dispensers are generally installed and used in establishments under the sanitary control of food sanitarians; but the containers are washed and filled in milk distributing plants, with products subject to the activities of milk sanitarians. The National Sanitation Foundation, having published Sanitary Standards for Soda Fountain Equipment, and for some types of Restaurant Equipment, took steps preparatory to the development of sanitary standards for dispensers. Milk distributors, caught in the trend and interested in any means to increase sales of milk, urged that the sanitary standards for bulk milk dispensers become a 3-A Sanitary Standards joint-committee undertaking.

Unless an amicable understanding could be reached by the two organizations, it is obvious that the situation could have serious potentialities. An understanding was reached that 3-A Sanitary Standards would be developed for Bulk Milk Dispensers. But this device is only one of a considerable number of types of equipment lying in the border zone between dairy and restaurant equipment, and a formal definition of the field of each organization, and a guide for determination of the responsibility for sanitary standards, in border-line cases, appeared desirable and necessary.

After considerable preliminary correspondence, a meeting was held at the National Sanitation Foundation, at the University of Michigan, on June 24, 1955. The 3-A joint-committees were represented by Dr. E. H. Parfitt and George W. Putnam, of the Sanitary Standards Sub-committee of the Dairy Industry Committee, John D. Faulkner of the U.S.P.H.S., and C. A. Abele of the Committee on Sanitary Procedure, of this Association. The National Sanitation Foundation Committee was represented by W. D. Tiedeman, Charles Senn, and Walter Snyder. In the course of the meeting, the following formal understanding was reached:

JOINT STATEMENT OF POLICY

The Executive Groups of the Committees on 3-A Sanitary Standards for Dairy Equipment and of the National Sanitation Foundation met in conference, at the Foundation's offices at the University of Michigan, on Friday, June 24 for the purpose of examining lines of demarcation in the preparation of sanitary standards for equipment used in the handling of milk and food. It was recommended that the criterion for determining which organization would handle preparation of standards for a specific item of equipment would be based on which industry has the responsibility for the sanitation of the surfaces

[2]This Committee problem has been discussed with the Executive Board, and ways and means to make available some travel funds are being explored.

contacted by the dairy products. In other words, it was recommended that where the dairy processing plant is responsible for the sanitation of the dairy products surfaces, the 3-A Sanitary Standards Group would undertake the preparation of the standard; and that where the food handling establishment is responsible for the sanitation of the surfaces contacted by dairy products, the standards would be developed by the National Sanitation Foundation's Joint-Committee on Food Equipment Standards.

It was further recommended that closer liaison should be maintained between the two organizations by interchange of tentative drafts of standards during the formative period of their preparation, where it is evident that there is definite interest of both organizations in the details of the sanitary standards under consideration. Where necessary to achieve an adequate understanding, a conference of representatives of corresponding committees would be called.

There was complete agreement that both organizations have a common objective in the preparation of effective sanitary standards for equipment used in the food service and dairy fields. Past accomplishments by both serve to point to the necessity of further coverage of such additional items of equipment as have known public health significance.

The presentation of the 1954 Annual Report of this Committee included an "off-the-record" report of progress toward the formation of an organization to promote and police the use of the 3-A Symbol. It is now possible formally to announce the formation of "The 3-A Sanitary Standards Symbol Administrative Council," consisting of the following members:

Representing the Technical Committee of D.I.S.A.

Paul K. Girton, Girton Manufacturing Co. Millville, Pa.

George W. Putnam, Creamery Package Mfg. Co., Chicago, Ill.

Representing the Sanitary Standards Subcommittee of D.I.C.

William A. Dean, Jr., Bowman Dairy Co., Chicago, Ill.

A. E. Nessler, Kraft Foods Co., Chicago, Ill.

Representing the Committee on Sanitary Procedure of this Association.

Paul Corash and *C. A. Abele* (3-year terms)

Mark D. Howlett, Jr., and *K. G. Weckel* (2-year terms)

The Association representatives on the Council were appointed by President Parkin.

The organization meeting of the Council was held in conjunction with the joint meeting on 3-A Sanitary Standards at Bethesda, Md. The following officers were elected:

CHAIRMAN—*William A. Dean, Jr.*

VICE-CHAIRMAN—*A. E. Nessler*

SECY.-TREAS.—*C. A. Abele*

Attendance of Committee members at this initial meeting of the council (one member from Los Angeles) was made possible by a loan from the Association Treasury. Letterheads and envelopes, application forms for authorization to use the 3-A Symbol, and authorization certificates have been printed, also at the expense of this Association. The 3-A Symbol Council is now indebted to this Association to the amount of $491.86, plus the express for shipment of the stationery and forms. Repayment will be made from the initial receipts of the Council. The fees to be charged for use of the 3-A Symbol have not yet been fixed by the Council, but will probably be decided upon at a meeting of the Council to be held next week.

The mechanics for processing applications for authorization have not been fully crystallized. It is possible to state, however, that the plans of the Council with respect to this procedure have been materially advanced by the availablility of checklists for Storage Tanks, Stainless Steel Automotive Transportation Tanks, and Homogenizers and High-Pressure Pumps, drafted by the Committee on Sanitary Standards for Dairy Industry Equipment, of the New York State Association of Milk Sanitarians. These check-lists of mandatory provisions of 3-A Sanitary Standards were drafted for use by sanitarians in determining compliance of individual pieces of equipment, none of which is now identified by the 3-A Symbol.

It is anticipated that, after formal review — possibly some modification — by the Task Committees which presented the original drafts of the respective sanitary standards, such checklists, filled out by a responsible officer of the applicant concerned, will become a feature of the formal applications for authorization to use the symbol. The New York State Association Committee has indicated its intent to prepare similar checklists for other types of equipment for which 3-A Sanitary Standards have been adopted. This activity indicates a high degree of interest in sanitary standards, which is reflected in assistance to individual sanitarians, and to the 3-A Symbol council, as well.

H. E. BREMER
E. B. BUCHANAN
PAUL CORASH
JOHN CULP
DAVID H. EVANS
MILTON R. FISHER
H. CLIFFORD GOSLEE
MARK D. HOWLETT, JR.
WILBUR KEMPA
BEN LUCE
C. K. LUCHTERLAND
JAMES A. MEANY
SAM D. NOLES
IVAN E. PARKIN
C. W. WEBER
DICK B. WHITEHEAD
H. L. THOMASSON
Ex.Officio
C. A. ABELE, *Chairman*

AN EFFECTIVE "SINGLE SOLUTION" STAIN" CONTINUED FROM PAGE 121

result in a constant stain itensity in background and cells was intriguing. We therefore balanced the ingredients to the point we desired.

3. Our criterion was the light, uniform background, and the differentiation of cellular structure that is attainable by employing very dilute stains. This is particularly necessary when heat-treated dairy products are examined, where all stages of plasmolysis may be anticipated. We have used the system detailed above for twenty years. (We test an average of 100 raw and 150 unhomogenized and homogenized milks and creams daily).
4. Undoubtedly, the origin of many of the conflicting statements in the literature regarding the utilization of the microscopic method on pasteurized products, is due to the use by some investigators of uncritical stains which yielded smears so dense that partially plasmolyzed and even unplasmalyzed cells were frequently missed.
5. The three stains recommended for official use by the current 10th Edition of Standard Methods recover cellular populations of a magnitude equivalent to that obtained by this modified stain on raw milk and creams. They recover much lower levels, however, on heat-treated products—especially those which have been homogenized.

REPORT OF THE COMMITTEE ON RECOGNITION AND AWARDS—1955[1]

Two awards for distinguished service—The Citation Award and The Sanitarians Award—are presented annually by the *International Association of Milk and Food Sanitarians, Inc.* It is the responsibility of the Committee on Recognition and Awards to conduct those activities of this Association concerned with selection of the recipients, presentation of the awards, publicity, and related matters.

The experiences of the Committee, in discharging its responsibilities during the past year, have led to the conclusion that neither the Affiliate Associations, nor the membership as a whole, has been properly informed as to the significance of these awards, qualifications required of candidates, the method of nomination, and the selection procedure. Therefore, the Committee proposes, through this report, to bring these matters to the attention of the membership.

The purpose of The Citation Award, which was formally established in 1951, is to bestow well-deserved recognition upon members of this Association who, through long and distinguished service, have contributed greatly to the professional advancement, growth, and reputation of the *International Association of Milk and Food Sanitarians, Inc.* The rules for this award state that a suitably framed citation shall be presented each year to the member whose past services have been judged to be the most outstanding. However, if the Executive Board deems it advisable, two members, but not more than two, may be so honored during a given year.

The method of selection of the recipient of The Citation Award is as follows. Any member of the Association, or affiliate association may submit a nomination to the Committee on Recognition and Awards. Such nomination must be accompanied by a statement listing the candidate's past contributions and services to the Association, and it must be mailed prior to May 1 if the candidate is to receive consideration for the current year's award. After the cut-off date, all nominations are reviewed by each member of the Committee, who rates the candidates and submits a ballot to the Chairman of the Committee. The names of the two candidates rated the highest by the Committee are then submitted to the Executive Board who makes the final selection.

This year five nominations for The Citation Award were received by the Committee. All candidates had made significant contributions to this Association over a period of many years, and it was difficult to choose the two whose past services had been the most outstanding. The Committee selected, and recommended to the Executive Board, Dr. R. G. Ross and Mr. A. W. Fuchs. The Executive Board, in considering the Committee's recommendations, felt that both men had served the Association long and well, and that both should be honored. Therefore, for the first time, two Citation Awards were presented in a single year.

The second of these two awards, The Sanitarians Award, is, in the opinion of the Committee, one of the most important honors that can be conferred upon a public health worker. It was created for the purpose of bestowing long and overdue recognition upon the local sanitarian – the man whose contributions to public health in this country have been so great, and yet the man who so often has been overlooked as far as recognition is concerned. The Sanitarians Award is sponsored jointly by five manufacturers of sanitation chemicals, the Diversey Corporation, Klenzade Products, Inc., Oakite Products, Inc., Pennsylvania Salt Manufacturing Corporation and the Olin Mathieson Chemical Corporation, and consists of a framed citation and one thousand dollars in cash. It is conferred annually upon a local sanitarian who has made a meritorious contribution in the field of milk and food sanitation to the public health and welfare of a county or municipality within the United States or Canada.

The rules governing the eligibility of candidates for The Sanitarians Award, method of nomination and method of selection, are published each year in the December or January issue of the Journal of Milk and Food Technology. Briefly, the rules of major importance are as follows:

(1) A candidate must be a living citizen of the United States or Canada, but need not be a member of this Association.

(2) A candidate must be currently employed as a professional milk or food sanitarian, or both, by a county or municipality. State and Federal employees, and industry employees, are not eligible, nor are members of the Executive Board or Committee on Recognition and Awards.

(3) The achievements and contributions, on which the Award is based, must have been performed within the five-year period preceding January 1 of the year during which the Award is to be made. Under special circumstances related work accomplished by a candidate during the preceding seven-year period may be considered.

(4) Nominations may be submitted by an Affiliate

[1]Presented at the 42nd Annual Meeting of the INTERNATIONAL ASSOCIATION OF MILK AND FOOD SANITARIANS, INC. at Augusta, Georgia, October 4-6, 1955.

Association, or by any member of this Association in good standing (except members of the Executive Board, the Committee on Recognition and Awards, and employees of the sponsoring companies).

(5) Nominations must be accompanied by a biographical sketch of the nominee, a resume' of his work and achievements, supporting evidence of accomplishments, and, if available, reprints of publications.

(6) Nominations and supporting evidence must be submitted to the Executive Secretary of the Association on or before May 15.

The Committee on Recognition and Awards has sole responsibility of the selection of the recipient of The Sanitarians Award. The Executive Board has no voice in the selection. The brochures of all nominees are reviewed by the Committee members who rate the candidates on the basis of (a) originality of thought, mode of planning and technique employed in carrying out the work, (b) the comprehensive nature of the work, and (c) its relative value as it affects the health and welfare of the community. Consideration is also given to other accomplishments of the nominee to establish professional recognition in his community, and to advance the cause of public health. Final selection of the recipient is based on the rating given each nominee by the individual members of the Committee.

This year six nominations for The Sanitarians Award were received and one of these candidates was not eligible. All of the nominees were outstanding men and had made significant contributions to the health and welfare of their communities. Selection of the recipient from among these men was a difficult task, however, the Committee judged that the over-all contributions of Mr. B. G. Tennant, Chief Sanitarian of the Escambia County Health Department, Pensacola, Florida, were the most outstanding and he was selected as the recipient of the 1955 Sanitarians Award.

In the opinion of the Committee, there are many local milk and food sanitarians whose work merits consideration for this honor. Therefore, it is urged that the Affiliates establish within their own organizations a committee which would consider the nomination of local sanitarians, from within their own State, whose work and accomplishments have been outstanding. In this connection, it is emphasized that the rating of each candidate must necessarily be based upon an evaluation of the evidence submitted in support of his nomination. Thus, a well prepared brochure which specifically sets forth the work and accomplishments of the candidate is most important. Some of the brochures submitted this year could have been improved upon. The Committee has recognized that perhaps better instructions should have been provided as to the procedures to be followed in preparing brochures. It has, therefore, undertaken to develop a prescribed format and standard forms for future use, commencing with 1956.

It is desired to report, also, that the sponsors have agreed to continue The Sanitarians Award. At this meeting the members of the 1955 Committee and the members of the Committee for 1956, who were present in Augusta, met with the representatives of the five sponsoring companies. The rules and procedures followed in administering the Award were reviewed in detail, including a few minor changes in both the rules and the Committee structure which had been recommended by the Executive Board. The sponsors expressed satisfaction with the manner in which the Award has been administered since its inception four years ago.

John D. Faulkner, Chairman, Bethesda, Maryland.
Harold J. Barnum, Rocky Mountain Association of Milk and Food Sanitarians.
Leon S. Blankenship, Tennessee Association of Sanitarians.
Donald J. Boughton, Idaho Sanitarians Association.
Hubert Shull, Sanitation Section, Texas Public Health Association.
George H. Steele, Minnesota Milk Sanitarians Association.

REPORT OF THE COMMITTEE ON EDUCATION AND PROFESSIONAL DEVELOPMENT—1955[1]

At the 41st Annual Meeting of this Association held in Atlantic City, New Jersey in 1954, your Committee presented two matters for consideration by the membership. The first involved, "A Proposed Model Registration Act," for the registrations of sanitarians, and secondly, presented some preliminary plans and suggestions for the establishment of academic scholarships for students electing sanitation and public health as a major study area.

At the 41st Annual Meeting the membership instructed this Committee to continue its deliberations on both projects and to submit a further report concerning each of them. This your Committee has done.

Proposed Model Registration Act

First, comments will be made in regard to the, "Proposed Model Registration Act." This was published in full in Volume 18, No. 1 of the January 1955 issue of the *Journal of Milk and Food Technology*. Accompanying the published text was a statement to the effect that the publication of the Act, "does not by inference or otherwise indicate its acceptance or rejection by the International," but is published, "to give all members of the International an opportunity to study and comment upon it."

Neither committee members nor your chairman received any comments or suggestions in writing from the membership. However, after solicitation by the chairman, committee members did make recommendations and upon the basis of these, certain revisions have been made as follows:

In the 1954 Model Act, Section 4 proposed that, "The State Board of Health, shall at the first regular meeting after the effective date of this Act, or as soon thereafter as possible, establish the Department which shall consist of five persons subject to registration under this Act and who are members of the ..... Association of Milk and Food Sanitarians in good standing."

Two objections were raised to this section. First, placing responsibility for the creation of the "Department," solely under the jurisdiction of the State Board of Health. Secondly, objection was made to the point that the sanitarian members of the "Department" would have to be members in good standing of the state association of milk and food sanitarians. It was felt that this was discriminatory and should be deleted.

In consequence of these constructive criticisms, Section 4 of the Act has been revised to read, "The Governor shall within thirty (30) days after the effective date of this Act appoint seven members to the Department, three of whom shall be (it is here suggested that such persons as the commissioner of health, the state commissioner of agriculture, the state superintendent of public instruction or education or the dean of the college or university, be named to the Department), and four members who shall be sanitarians eligible for registration under the terms of this Act who are citizens of the United States, are at least 30 years of age, at the time of appointment, and shall have been engaged officially in work involving public health sanitation for a period of at least five (5) years at the time of appointment."

Section 5 of the 1954 proposed Act has been deleted and made part of the new Section 4. Section 5 of the new draft now provides that when four members of the Department are present at an official meeting this shall constitute a quorum. An annual audit of the Department's finances shall be made and incorporated in a report to the Governor.

These are the only changes which have been made in the 1955 revision. The Committee would like to reiterate again the fact, that this is only a model to serve mainly as a working guide. We do not feel it serves a useful purpose in promoting uniformity. State Associations who may wish to introduce legislation should find it useful, but undoubtedly some changes or additions may be found necessary to make it conform with statutes of the various states.

Your Committee now feels that its project on the proposed model law is now completed and if further changes are made they should be incorporated as experience with it may dictate.

Further, your Committee recommends therefore that the model law which it has drawn, be made available through the International to serve as a guide to those affiliates who may wish to use it in promulgating an Act, for introduction into the legislature of their respective states for the legal registration of sanitarians.

The Scholarship Proposal

The second project given additional study by the Committee involves a proposal which was introduced first in 1954, for the creation of student scholarships as a joint and cooperative undertaking with funds appropriated by the Executive Board and the several affiliates of International.

[1]Presented at the 42nd Annual Meeting of the International Association of Milk and Food Sanitarians, Inc., at Augusta, Georgia, October 4-6, 1955.

Before commenting in detail on the possible method of administration of a scholarship plan, it is relevant at this point to report that of the twenty-six affiliated associations and chapters contacted results of solicitation are as follows:

Those voting an assessment of $0.25 per member	4
Those voting a contribution of $25.00 annually	5
Those favorable to plan but no appropriation made	6
Those making no reply	7
Those unfavorable or having other plans	4
	26

By way of explanation it should be pointed out that of the six affiliated associations, who were favorable to the plan a direct appropriation was not made in 1955 for one of the following reasons. First, the details of the scholarship proposal had not been worked out in sufficient detail, secondly, the affiliate was relatively new and financial conditions did not permit an appropriation, or in the case of one affiliate a change by constitutional amendment was believed to be necessary to permit an appropriation or an assessment for such purpose. From comments at the 1954 meeting and by correspondence from some members during the current year a number of points were raised upon which the Committee now feels it can report. These are as follows:

(1) *The Capital Amount of the Proposed Scholarship.*
The predominant opinion expressed by the majority of the Committee and by others was to the effect that an annual scholarship of $200.00 is not sufficient in amount to serve as an inducement for a student to select sanitary science and public health as his major study area.

(2) *The Proviso that a Recipient of a Scholarship would after Graduation be Expected to Spend at Least One Year in Official Milk, or Food Sanitation work.*
This provision was considered both impractical and unrealistic and has been deleted.

(3) *The Academic Year when a Scholarship Would be Available.*
The scholarship would first be made available for the third, or junior academic year. Since many students do not make a selection of their major subject until their sophomore year, the scholarship might be awarded in the latter half of the sophomore year, but monies would not be made available to the student until the beginning of the junior year.

(4) *Would the Scholarship be Available for Both the Junior and Senior Year?*
The Committee felt it should be, provided the student continued in the same major, maintained his scholastic standing and was still in financial need.

(5) *Should Eligibility for Scholarships be Restricted to Members of International or to Members of their Families?*
It was the concensus of the Committee that no such limitation or restriction should be imposed and that scholarships should be offered for those interested in our field, or who might be interested in public health, with no strings attached.

It is hoped that answers to some of these pertinent questions will further clarify the situation for those who requested more details on the proposal.

PRESENT STATUS OF FUND

Based on those associations who have made appropriations it appears that an amount approximating $250-$275 is now available. In the initial proposal it was the suggestion that the Executive Board of International would appropriate matching funds. If this were the case, the total monies now available would be increased to between $500-$550. While this could very well form the basis for two $250 or two $275 scholarships, we reported earlier that the Committee felt generally that such amounts were insufficient to induce a student to select sanitation as his major study area.

ALTERNATE PROPOSAL

The alternate proposal is, (a) that the Executive Board appropriate from the treasury of International a sum of $350.00 on a continuing annual plan, and (b) the affiliated associations be encouraged to make contributions to this fund on a voluntary basis. In this way there would always be sufficient funds for one annual scholarship of $350.00, but as this fund is augmented by contributions, one or more additional annual scholarships might be provided. Undoubtedly, the amount above $350.00 would vary from year to year and similarly the number of scholarships available would vary. Announcement could be made to appropriate colleges and universities throughout the country where undergraduate courses in public health are offered, and the selection of the student recipient of the scholarship would be made upon recommendations to the Executive Board by the Committee on Education and Professional Development. It would be the further responsibility of this Committee to publicize the scholarship plan, review the qualifications of all applicants, attend to the usual administrative details and recommend to the Executive Board the student or students to whom the scholarships should be granted.

The Committee feels there is a genuine interest on

the part of International's members for a scholarship plan. We believe much good will would be promoted through the granting of scholarships. In addition, a scholarship plan would be definite tangible evidence of this Association's interest in professional development and this, your Committee believes, is one of the fundamental objectives of International.

It is therefore recommended that the membership here assembled instruct the Executive Board of International to appropriate from the treasury a sum in the amount of $350.00 for the establishment of the first International Undergraduate Scholarship Fund. It is provided further, that International through an appropriate committee or committees encourage affiliated associations and chapters to contribute monies annually on a voluntary basis to the scholarship fund in such amounts as their officers may appropriately determine.

HAROLD S. ADAMS, Chairman, Medical School, Indiana University, Indianapolis, Indiana.
W. HOWARD BROWN, 940 Main Street, Jacksonville, Florida.
C. F. HANGER, Dairy and Food Division, State Office Building, Richmond, Virginia.
HARRY LINDQUIST, Flint Laboratory, University of Massachusetts, Amherst, Mass.
WILLIAM MILLER, Milk and Food Program, Division of Sanitary Engineering Services, U.S. Public Health Service, Washington 25, D.C.
D. B. MORTON, State Department of Health, 2129 S. 4th Street, Springfield, Illinois.
E. J. RIGBY, City Health Department, Winnepeg, Manitoba Canada.
LYLE SEARING, King Co. Health Dept., Chief Milk Division, Public Safety Building, Seattle, Washington.
JOHN J. SHEURING, Dairy Dept., University of Georgia, Athens, Georgia.
JAMES WHITE, Dept. of Dairy Industry, Cornell University, Ithaca, New York.

REPORT OF THE COMMITTEE ON MEMBERSHIP—1955[1]

Last year's report of the membership committee showed 3,819 paid up members located in 80 states, provinces countries and territories.

As of September 1, 1955 the membership is 4,033 a gain of 5.3 percent over the previous figure. While this is not a large number it indicates that the International Association Milk and Food Sanitarians is not stagnant or resting.

Within the year new affiliate associations have been formed in South Carolina and Rhode Island. The South Carolina organization has 114 members. In 1954, there were no members of the International Association of Milk and Food Sanitarians listed for this state.

The membership committee had better geographical distribution in the past year and as most of the members are continuing on the committee for another year it is hoped that the next year will show a worth while increase of Association members.

Information collected from the questionnaires returned will be the basis for this report. The number of returns has been disappointing as only 288 had been received when this was prepared. They came from 40 states, the District of Columbia, two Canadian provinces, Alaska, Puerto Rico and Mexico. South Dakota members are to be congratulated on the number of questionnaires returned.

The 288 returns showed that the members listed a total of 628 activities. There were 117 listing only one to one member listing 11. One-hundred and eighty-eight members are sanitarians, 84 bacteriologists, 40 educators, 49 consultants, 47 each laboratory technicians and milk processors and 36 chemists. There were no physicians or publishers reporting. One librarian, 2 attorneys, and 4 students returned the questionnaire. There were 21 returns representing advertising agencies, trade associations and other activities not specifically mentioned.

There is some duplication in these reports as a supervisor may include all the figures of subordinates. These cannot be accurately differentiated. Some failed to give numbers.

Fifty-seven members reported that they inspected 630 barber shops. There were 64 reporting inspections of 3,913 butcher shops; 198 inspected 58,050 dairy farms. Food plants, not milk plants, were reported as 2,950 by 77 members; 8,765 groceries by 71; 1,864 hotels by 67. Eight-hundred and twelve lodging houses were checked by 27 while 200 made visits to 8,244 milk plants. Only 120 nurseries were listed by 28, as compared with 13,937 restaurants by 111; 83 members checked 2,271 drug stores, while 80 noted 3,165 soda fountains. Schools to the number of 2,115 were mentioned by 93; 805 sewage disposal plants were officially visited by 56; 39 reported 562 tourist homes; 36 listed218 trailer camps; 53 inspected 730 water works while 32 indicated activities covering 3,165 miscellaneous items such as state fair concessions and eating places.

One-hundred and forty-one reported supervision of 2,810,000 cows, 140 of these listed nearly 132,000 milk machines. Seventy-eight reported 10,200 bulk tanks

[1]Presented at the 42nd Annual Meeting of the INTERNATIONAL ASSOCIATION OF MILK AND FOOD SANITARIANS, INC. at Augusta, Georgia, October 4-6, 1955.

while 55 indicated that there were no bulk tanks under their supervision. No attempt could be made to total the number of pounds of milk produced and processed.

One-hundred and sixteen said that bulk dispensers were to be found in their territories and of these 95 indicated the total number was 960.

Two-hundred and seventy-three indicated employment in governmental or university laboratories, many included more than one, while 200 listed laboratories and commercial plant activities not directly connected with regulatory work.

The number of automatic dispensers reported was too small to be of any significance.

The average mileage per year according to 274 reports was 17,000. Almost 10% of the cars driven were made before 1950. There are 42, 1955 models.

Eighty-eight of those reporting felt that the Journal advertising was of value to them; 8% said that it was of no value and 4% did not give an opinion.

Of the 288 reports, 30 came from members in cities of 1,000,000 or more; 93 from 100,000 to 1,000,000; 69 from cities of 25,000 to 100,000; 74 from 2,500 to 25,000; 13 from less than 2,500 and 9 from farm residents.

The membership committee thanks all of those who have returned the questionnaires and requests that all who have not reported, please help by sending in their questionnaires.

H. L. TEMPLETON, Chairman, Rocky Mountains Association.
H. L. THOMASSON, *Co-Chairman*
H. J. BARNUM, Rocky Mountain Association.
L. W. BROWN, Wisconsin Association.
H. E. CALBERT, Wisconsin Association.
L. K. CROWE, Rocky Mountain Association.
H. CLIFFORD GOSLEE, Connecticut Association.
MEL HERSPRING, California Association.
C. K. JOHNS, New York Association.
EMIL MIKOLAJCIK, J. M. NAKAHARA, A. A. PAIS, Virginia Association.
K. L. POOLE, P. E. RILEY, Illinois Association.
F. L. SCHACHT, New York Association.
DR. H. SHULL, Texas Association.
O. E. SKILES, Tennessee Association.
H. R. THORNTON, L. O. TUCKER, Washington Association.
IVAN VAN NORTWICK, Kansas Association.
H. H. WILKOWSKE, Florida Association.

REPORT OF THE COMMITTEE ON FOOD EQUIPMENT STANDARDS — 1955[1]

One year ago John Fritz found it impossible to continue his duties as *Chairman* of the Food Equipment Committee. His devoted service and capable leadership is a most regretable loss to the Committee and the Association. President Parkin requested your present chairman to accept the assignment which he did with considerable misgivings. Some progress has been made and credit for this should go to John Fritz, former Chairman, Clarence Weber, and the other members of the committee, giving so generously of their time.

At the time Jack Fritz resigned the Chairmanship, he also proffered his help and advice to his successor. This has been invaluable to the Committee. Clarence Weber, another past Chairman, has also lent great assistance in the prepartion and delivery of last year's report as well as in the management of Committee affairs during the year.

Representatives of the participating organizations of the Joint Committee of the National Sanitation Foundation, as well as the Industry Committees were all very kind and considerate of your Committee Chairman at all sessions of the Joint Committee in Ann Arbor last June.

In accordance with a recommendation contained in the last annual report, a new Committee on Baking Equipment was appointed under the able Chairmanship of Vincent Foley, and assigned to collaborate with the Baking Industry Sanitary Standards Committee. Mr. Foley has given your Food Equipment Committee fine help and cooperation. We know his committee under his leadership will do a fine job.

The National Sanitation Foundation Proposed Sanitary Standard No. 4 relating to the Construction and Installation of Commercial Cooking and Warming Equipment is being developed and has undergone several revisions. The proposed draft did not give adequate and specific coverage for both gas and electric type equipment. It has subsequently proposed that two sets of standards should be prepared, one for gas equipment and one for electrical. After considerable discussion of this matter, it was the majority opinion of your Food Committee that there was no need for two standards. At the June meeting of the Joint Committee of the N.S.F. this problem was resolved by deciding to publish the standards for all heating and warming equipment in one manual even though certain sections would deal with either gas or electrically fired equipment separately. One other extremely difficult situation was in the matter of elevating heavy equipment from the floor unless it was sealed to the floor, or movable. This is particularly difficult where gas ranges with ovens and cooking tops are involved. Manufacturers tell us they will have extreme difficulty

[1]Presented at the 42nd Annual Meeting of the INTERNATIONAL ASSOCIATION OF MILK AND FOOD SANITARIANS, INC., at Augusta, Georgia, October 4-6, 1955.

in trying to install an oven, gas manifolds, six inch legs and keep the top working surface under 34 inches above the floor. Manufacturers feel that the oven under the cooking top will soon be a thing of the past. It now appears that stack ovens will be almost universally used in the future. It is for this reason that the six inch elevation from the floor has been deferred until 1960 and in the interim manufacturers will be making an effort to re-design and re-tool so as to comply.

It is the opinion and recommendation of your Committee that standards for liquid sugar equipment should be considered by a Food, Baking and Dairy Equipment Joint Committee inasmuch as it is equipment which will be used by all three industries.

W. R. McLean suggested that a counter freezer which dispenses ice cream, frozen dessert, malts or milk shakes directly into the *consumers container* should be considered as soda fountain equipment and therefore restaurant equipment. Freezers used to make carry-out packages (quarts, pints, half-pints etc.) would remain in the category of dairy equipment. This seems an excellent means of determining into which category such equipment should fall, however, your committee is not ready to make a recommendation in this matter because further study should be made, and the Committee dealing with Dairy Equipment should certainly be consulted before decisions are reached.

Several changes in Standards 1, 2 and 3 of the N. S. F. have been proposed. Your Committee recommends that action be deferred on this matter until a complete analysis of the proposed changes may be made by the Committee Members.

When work on the final draft for Commercial Cooking and Warming Equipment has been completed, it is the recommendation of your Committee that numerous pieces of small kitchen equipment should be considered for the establishment of Sanitary Standards by the N. S. F. Your Committee Chairman will offer this suggestion at the next meeting of the Joint Committee of the N. S. F. when it seems appropriate.

W. V. HICKEY, Chairman
CHARLES COTTON
LEWIS DODSON
F. H. DOWNS, JR.
D. E. HARTLEY
JOHN H. MCCUTCHEON
W. R. MCLEAN
J. H. MILLAR
JEROME TRICHTER
CLARENCE WEBER
JAMES WESTBROOK

REPORT OF THE COMMITTEE ON DAIRY FARM METHODS—1955[1]

The last two annual reports of the Dairy Farm Methods Committee have dealt mainly with the bulk handling of milk on the farm. This revolutionary method of handling milk has continued to grow in popularity both with the dairy farmer and the distributor. From the farm viewpoint, it has been a labor saver and a method which has improved the quality of the milk produced. From the plant viewpoint, it has simplified the weighing in of the producers' milk, eliminated washing and handling of producer's cans and simplified the record keeping.

The growth of this method already has enabled some plants and even some markets to receive their entire milk supply from tank shipments, and today many large markets are looking forward to the time when all their milk will be received from tank trucks serving the producers' bulk holding tanks. Many problems have arisen with the rapid development of bulk handling and, for this reason, the Committee decided to continue the study of the bulk handling of milk at the farm and the problems presented.

This year's report is divided into three parts:

1. The taking and care of butterfat and bacteria samples of milk from farm tanks.
2. Supplementary study on the care and cleaning of farm tanks.
3. The possibilities for simplifying the methods of milk handling on the farm in order to effect a savings of labor and expense without sacrificing the quality of the product (particularly the development of all types of milking parlors).

To date, there has been a nation-wide lack of uniformity of procedure for the taking of samples from tanks either for butterfat determination or bacteriological analysis and a lack of regulation by control agencies. The securing of proper samples from farm tanks, acceptable both to industry and regulatory agencies, is one of the most pressing problems presented by the bulk handling of milk. The problem is created, in part, by the fact that regulatory agencies either must be willing to provide an arrangement whereby samples taken by the tank truck driver will

[1]Presented at the 42nd Annual Meeting of the INTERNATIONAL ASSOCIATION OF MILK AND FOOD SANITARIANS, INC., at Augusta, Georgia, October 4-6, 1955.

be recognized as official samples, or assume the necessary expense of providing personnel and transportation for the procuring of these samples at the farm.

As the procedures for taking butterfat samples are so different from those for taking of samples for bacterial count, we found it less confusing to treat the two subjects separately.

SAMPLES FOR BUTTERFAT DETERMINATION

Starting at the farm, the first problem which presents itself is the securing of an accurate butterfat sample from the bulk tank. Samples for use by industry are usually taken by the tank truck driver. Farm tanks are equipped with an agitator to stir the milk so that a representative sample can be obtained. However, there are many makes of tanks of different shapes, equipped with agitators of many types and varying speeds. The length of time required for proper agitation before taking the sample varies from two to five minutes. It has been noted in some instances that different results are secured from samples taken from different parts of the tank, particularly if the milk has not been agitated for a sufficient length of time. Thus, it is necessary to make some experimentation with each tank installation as to the length of time the milk should be agitated in order to assure a proper sample. In most cases, two to three minutes of agitation have been found to be adequate. It is suggested that a timing device be carried by the driver.

The tank truck driver should carry an insulated sample case which will protect the samples against high temperatures in summer and freezing in winter and against external contamination. The sample case should be equipped with a lock in order to prevent tampering from any source. Some tank trucks are equipped with a refrigerated compartment at the back. Otherwise, it is necessary that the sample case itself be contained in an additional ice chest in order to maintain samples at a sufficiently low temperature. Some tank truck manufacturers are now supplying such ice chests made of plastic impregnated with insulation. Even though the sample case has its own ice compartment and is insulated, in warm weather and on long routes it must be kept in the additional ice chest in order to keep the samples at a temperature of 50° F. or lower.

Maintaining the samples at a low temperature is particularly important when a composite sample is used. Homer J. Preston, of the U.S. Department of Agriculture, in General Report 10, entitled "Butterfat Sampling in Bulk Handling and Comparative Milk Solids Losses", cites results of a study indicating that higher tests are secured from fresh samples than from a composite sample. He further states, "Non-refrigerated composite samples had a larger proportion of tests below the average of corresponding fresh samples than the refrigerated samples." Where fresh samples are used for butterfat determination, some markets report that these samples of producer milk are taken each day and from them the laboratory picks up samples on scattered days throughout the month to determine each producer's average test for settlement purposes. Five to seven samples are reported as being used to determine a producer's monthly average.

The size of the bottle used for butterfat sampling varies from three to eight ounces in different markets. Regulations in some localities require that these sample bottles be of sufficient size to provide for duplicate Babcock tests, and the three ounce bottle seems to be the smallest size in general use. A bottle with a wide mouth is preferable for use in butterfat sampling, and a rubber stopper or screw type cap is generally used.

The dipper used for taking samples from each individual farm tank may be carried by the driver, or each farm may provide a suitable dipper as part of the tank equipment. There seem to be some advantages in having each farm provide its own dipper; less chance of contamination than when the dipper is transported from farm to farm; also, the responsibility of keeping the dipper clean is of prime importance to the dairyman whose milk is to be sampled and whose equipment is regularly inspected by local regulatory agencies.

SAMPLES FOR BACTERIOLOGICAL ANALYSIS

As with butterfat samples, samples for bacteriological analysis by industry are usually taken by the tank truck driver. However, regulatory agencies have the problem of securing an official sample, and if the driver is not licensed as an official sampler, each agency must bear the expense of providing its own personnel and transportation to and from the farms under its jurisdiction. In some markets, the inspector takes a sample from the tank truck and all the producers whose milk is in that particular tank are credited with the bacteria count of that sample. In other instances, the inspector attempts to use his own car to collect samples from the producer's tanks before the milk is collected by the tank trucks. In still other instances, the inspector rides the tank truck and collects samples prior to the pickup. It is questionable whether these procedures will be practical as the number of bulk tanks and tank truck routes increase.

Milk in the tank should be agitated before the sample is taken and *only clean and sterile sampling equipment should be used.* As with butterfat sampling, the dipper may be transported by the truck driver, or be provided by the farmer as part of the tank equipment. The same advantages pointed out in butterfat sam-

pling favor the producer's providing the dipper at the farm, i.e., less chance of contamination and greater possibility of having a clean, sanitized dipper at hand.

Sample bottles should be water-tight and provide for at least 10 ml. of sample and readily permit of effective washing and sanitizing. Screw cap vials and ground glass stopper bottles have proved satisfactory for this use. Ordinary cork stoppered containers should not be used. *Standard Methods for the Examination of Dairy Products, 10th. Edition,* page 83, gives the following description of sample bottles:

> "e. Sample bottles, sterile-Clean and dry (with leak-proof closure and with suitable place for identification of sample) such as (1) vials or prescription bottles, size 0.5–1 oz., with metal (corrosion-resistant) or plastic screw cap with liner, tops ground or molded smoothly, caps of proper skirt length to assure leak-proof contact with top of bottle, or (2) bottles with mushroom-top, glass stoppers, size 2–8 oz."

A sample case similar to that described for use in butterfat sampling is recommended. A hinged cover, so designed as to apply pressure on the sample bottle tops, tends to eliminate the possibilty of spilling. The temperature of samples for bacteriological analysis should not at any time, between the farm and the laboratory, be allowed to exceed a temperature of 40°F. The frequency with which bacteria samples are taken varies considerably in different plants and markets, with reports showing periods from one a week to one a month.

LICENSING OF TANK TRUCK DRIVERS

The securing of both butterfat and bacteriological samples of milk from farm tanks raises many problems, the more important of which are *what should be the proper qualifications of the tank truck driver* and *how control agencies may secure official samples.* These problems were recognized by the Committee in its 1953 report which posed the following question to a representative sampling of the milk industry and its control agencies: "What training is needed by the driver of a tank truck for sample taking and detection of off-flavor milk?" A large majority of those queried recommended that "the driver should have equal qualifications, the same type of training, and meet the same requirements as the receiving man at the receiving or processing plant." It was further recommended that "the driver also should be required to pass examination and be licensed by the control agency as a weigher and sampler of milk."

Much has been written regarding the sampling of producer milk and various means have been considered, but, as yet, no uniform practice has been established. A few states and markets are requiring the licensing of tank truck drivers and others are just now considering regulations which would make it mandatory that the drivers pass examinations before they could be qualified as samplers.

The 1953 Milk Ordinance and Code of the U.S. Public Health Service provides:

> "When circumstances require, the health officer may accept the results of examinations made by industry or other commercial laboratories, in the case of raw milk for pasteurization. Such results shall not be accepted, however, unless official periodic checks indicate that the methods employed are in substantial conformity with the standard methods recommended by the American Public Health Association. Non-official laboratory examinations shall not be considered as complete substitutes for official control, but as supplements thereto, and the health officer shall take and examine at least one sample per 6-month period of each producer's milk supply."

However, official control agencies have the problem that very few of them have the funds for personnel and transportation to "take and examine" even the one sample required for each 6-month grading period. As stated above, they have devised several varied procedures for the collection and analysis of producer samples. One of the least desirable is the practice of taking a sample for bacteriological analysis from the tank truck on arrival at the plant and crediting all producers whose milk is contained in the tank with the bacteria count thus obtained. Only if the count is found unsatisfactory does the control agency then go back to the farm level to determine which farm or farms are causing the unsatisfactory count.

In consideration of the problem presented, it may be that the best solution would be for milk tank drivers to be required to have certain qualifications and be licensed as milk weighers and samplers, and in addition, be deputized and licensed by the official control agency for the collection of the official samples required of them. In this way, the best interests of the milk industry, the control agencies, and the public may be protected.

The proper procedures for the collection of producer milk samples for use by industry and control agencies is indeed one of the most pressing problems presented by the bulk handling of milk, and it is hoped that the preceding discussion may be helpful in bringing about some approved methods of procedure.

SUPPLEMENTARY STUDY ON THE CARE AND CLEANING OF FARM TANKS

As a result of supplementary study on this subject, the Committee wishes to make certain additions to the material submitted on *Methods of Cleaning and Sanitizing Farm Tanks* as contained in its 1954 report.

Under the subtitle, "Facilities," the 1954 report is divided into five items. To Item (1) the Committee would add the following word of caution:

> The tank should be so situated that it will not cover any new, or existing floor drains, particularly if lo-

cated in an old milk house. This helps to prevent the drains becoming clogged, and if they should be clogged, allows the drains to be opened without requiring that the tank be moved and consequently recalibrated.

Also, these additional items are recommended for inclusion under the subtitle "Facilities":

6. A two compartment wash and rinse vat should be provided for cleaning demountable equipment and appurtenances and, if pipeline milkers are used, the vat should be long enough to accommodate the longest unit not cleaned in place.
7. A metal measuring stick is furnished with each tank to determine the quantity of milk which may be contained in the tank. This stick should be kept available for use by the tank truck driver. It should be cleaned and sanitized with the tank and other auxiliary equipment and should be stored in a sanitary manner.

We wish to add the following paragraphs to the five already listed as *Items for Special Attention*:

6. Initially, the farm tank should be given an especially thorough cleaning to remove all dust and grime accumulated during manufacture, shipment, installation and calibration. Brush all surfaces with hot (120° F.) alkaline dairy washing solution of a concentration three or four times as strong as routinely used. A thorough scouring with a strong cleaner such as powdered Bon Ami gives good results. Proper brushing with an acid cleaner, followed by another brushing with an alkaline cleaner and then a thorough rinsing has also proven a very satisfactory method of cleaning the new tank.
7. Do not allow chemical sanitizers, or alkaline and acid cleaning solutions to remain in contact with tank surfaces and appurtenances for prolonged periods. Cleaning solutions should be carefully rinsed from all tank surfaces and overnight soaking should not be practiced.
8. Do not allow wrenches, sanitary fittings, or other metal objects to rest on stainless steel surfaces which are wet.
9. Avoid use of water having excessive iron, salt, or sulphur content, if possible.
10. If a specially constructed dairy hose is not supplied, the hose in use should be equipped with a nozzle.

THE POSSIBILITIES FOR SIMPLIFYING THE METHODS OF MILK HANDLING ON THE FARM IN ORDER TO EFFECT A SAVINGS OF LABOR AND EXPENSE WITHOUT SACRIFICING THE QUALITY OF THE PRODUCT (PARTICULARLY THE DEVELOPMENT OF ALL TYPES OF MILKING PARLORS)

This subject is one which is always uppermost in the minds of the members of this Committee. Bulk handling has gone a long way to simplify methods of milk handling on the farm and has accomplished this with an improvement in the quality of the milk produced. Committee members report that loose-housing of dairy cattle, combined with a milking parlor equipped with a pipeline milker that is automatically cleaned in place, and a farm tank served by a tank truck go far toward the ultimate in today's thinking to reduce the work load of dairy farmers in the production of milk of consistently high quality.

Some additional suggestions for building and general management to be incorporated in last year's report on the "Construction of Milking Parlor Units" are:

To keep costs to a minimum, give consideration to pole construction of tramp sheds.

Ground-level storage of hay, with provision for self-feeding, contributes to efficiency of labor.

Self-feeding of silage in horizontal or trench silos, or mechanical feeding devices from upright or vertical silos, are also labor savers.

Measuring devices have been devised to regulate the amount of grain going to each stall in the milking parlor, either through chutes from overhead bins, or by automatic conveyor from storage at ground level. In this way each cow may receive grain according to her individual production needs.

For cows entering and leaving the milking parlor, long narrow ramps are preferred. If elevation of the ramp is necessary, the slope should not rise more than 15 degrees, or one foot in seven. Don't build up the holding corral—let the ramp slope or steps may be provided, particularly for the exits.

The application of two pounds of superphosphate per cow per day to the manure pack of the bedded area provides a firmer, dryer, surface, aids in reducing odors, and adds considerably to the value of the manure.

In the arrangement of the milking parlor and tramp shed, keep in mind the importance of controlling cow traffic through the entire system, particularly with respect to saving bedding and keeping the cows clean. Provide ample space for the bedded area, separate from the feeding and watering areas, and an arrangement permitting the least possible traffic in or through the bedded area. Do not permit cows to enter the milking parlor from the bedded area.

These items make for a more efficient milking parlor and simplify milk handling on the farm . . .our constant goal.

The Committee wishes to caution dairymen to study carefully the various new types of equipment introduced for new methods of milk production before purchasing them. They are many, and of various manufacture, each having certain advantages and disadvantages in a given situation. The producer should weigh each feature of the equipment under consideration and select that best designed and engineered to do the job in his particular circumstances. Not necessarily looking for the cheapest, or most expensive price tag, but rather to purchase the equipment which will meet his individual requirements.

As stated in its report last year, the Committee recognizes that bulk handling of milk on the farm is comparatively new and that experience will solve many of the problems reviewed here. It is hoped, however, that its reporting of experience so far en-

countered and attempts to assay results of this experience will prove beneficial to those endeavoring to adopt new, more efficient, methods of milk production without delay.

MR. CHESTER F. BLETCH, *Chairman*, Maryland and Virginia Milk Producers' Assoc., Inc., 1756 K. St. N.W., Washington, D.C.

MR. ALEX G. SHAW, Chief Dairy Supervisor, Inspection Bureau Dairy Division, Dept. of Agriculture, P.O. Box 163, Gainesville, Fla.

MR. PAUL CORASH, Chief of Milk Division, Department of Health, 125 Worth St., New York 13, N.Y.

MR. JOSEPH J. DONOVAN, Senior Sanitary Inspector, Brookline Health Department, Brookline, Mass.

MR. J. C. FLAKE, Sanitary Standards, Evaporated Milk Association, 228 N. LaSalle St., Chicago, Ill.

MR. C. F. HANGER, Asst. Director Division of Dairy and Foods Dept. of Agriculture & Immigration, State Office Building, Richmond 19, Va.

MR. MILTON E. HELD, Regional Milk & Food Consultant, U.S. Public Health Office, 2200 Federal Office Bldg., Kansas City 6, Mo.

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MR. C. W. PEGRAM, Chief, Dairy Division, Dept. of Agriculture, Raleigh, N.C.

MR. FRED JOLLY, Sanitation Supervisor, Pennington County Health Unit, 820 Quincy St.—Box 907, Rapid City, S.D.

MR. L. O. TUCKER, Advisory Milk Sanitarian, Environmental Sanitation Section, State Dept. of Health, Smith Tower, Seattle 4, Wash.

MR. A. G. MCLEOD, A/Director, Bureau of Food Control, Dept. of Health, 320 Sherbrook St., Winnipeg 2, Manitoba, Canada.

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DR. R. W. METZGER, Asst. Director, Quality Control, Dairymen's League Co-operative Assn., Inc., 100 Park Ave., New York 17, N.Y.

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MR. HAROLD HEISKELL, Manager, Babson Bros. Co., P.O. Box 2088, Sacremento, Calif.

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MR. MIKE O'CONNER, 425 South Garden, Bellingham, Washington.

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NEWS AND EVENTS

VICE PRESIDENT HOSKISSON, RESIGNS HAROLD B. ROBINSON BECOMES FIRST VICE PRESIDENT

William A. Hoskisson who was elected First Vice President of International at the 42nd Annual Meeting held at Augusta, Georgia, in October 1955, has resigned his officership.

Bill has changed connections and left the employ of Arden Sunfreze Creameries, Salt Lake City. He has taken a new position in the construction business and upon leaving the dairy field his new duties and connection made his resignation necessary.

The officers of International have accepted Bill's resignation with real regret. He has long been active in both International and the Rocky Mountain Association of Milk and Food Sanitarians currently serving as President of the latter group.

The best of wishes are extended to Bill in his new undertaking and it is hoped he will think often of his old friends and associates in International.

As a result of Mr. Hoskisson's resignation, Harold B. Robinson, of Washington, D.C. has been advanced from Second to First Vice President. The office of Second Vice President will remain vacant until the 43rd Annual Meeting elections to be held September, 1956.

Harold S. Adams
President

IOWA ASSOCIATION MILK SANITARIANS ANNUAL MEETING

The Iowa Association of Milk Sanitarians held its annual meeting on March 20, 1956, in the Dairy Industry Building at Iowa State College in Ames, Iowa. As usual this meeting was held the day before and in conjunction with the Dairy Short Course sponsored by the college. We had an excellent attendance both days. Our enrollment will jump up some I'm sure as we gained fourteen new members.

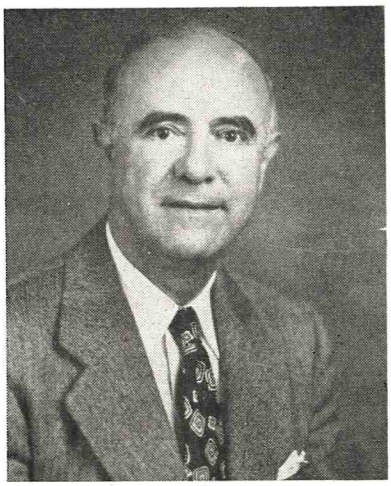
For our meeting we had Prof. Leon Charity to speak on the "Basic Principals of Refrigeration As They Apply To Bulk Farm Tanks". This talk ended with a display of eight farm tanks. As you may know, Prof. Charity was once associated with Cornell but he is now a

member of the staff in Agriculture Engineering at Iowa State College.

We were also fortunate in having Irving Schlafman, U.S. Public Health Service, Kansas City, Missouri, speak to us on the various tests that must be made by a milk sanitarian on pasteurization plant equipment.

Our last speaker was Dave Donhowe of Bonowitz Chemical Company, Burlington, Iowa. His subject was that of "Problems Concerning Cleaned-in-Place Pipe Lines". This is very briefly our program for the annual meeting.

R. A. Belknap
Secretary-Treasurer



ABRAHAM W. FUCHS RETIRES FROM PUBLIC HEALTH SERVICE

Abraham W. Fuchs, Sanitary Engineer Director, engineer officer of the Public Health Service Commissioned Corps, who has been Chief of the Field Party of USOM/Kingston, Jamaica, for the past year, retired from the Public Health Service, U.S. Department of Health, Education, and Welfare on March 1, 1956 after 39 years of service. He was a commissioned officer for 26 years. He has returned to Jamaica to continue as advisor on environmental sanitation problems, but will now be an employee of the International Corporation Administration.

Mr. Fuchs obtained his civil engineering degree, with the major in sanitary engineering, at Cornell University in 1913. He entered the Public Health Serivce in 1916 and has held various assignments with the Service, the longest of which was in the field of milk and food sanitation. He conducted a number of research investigations and studies relative to both the sanitary design and adequacy of pasteurization equipment. He was instrumental in the development of suggested ordinances and codes in the field of milk and food sanitation for use by State and local agencies, and was active in the initiation of cooperative programs with the States and industry for the improvement of the sanitary quality of our milk supplies. From 1940 to 1952 he served as Chief of the Milk and Food Branch, United States Public Health Service, Washington, D. C.

During World War II he directed the efforts of the Service in assisting States and municipalities to provide adequate milk supplies to critical defense areas. He also greatly expedited the Service's program of conducting large numbers of demonstration classes to stimulate the development of food handler training courses by States and cities. From 1952 to 1955 he served overseas as Chief of the Health Division of USMO to Israel.

Mr. Fuchs was President of the International Association of Milk and Food Sanitarians in 1949, and served on its Executive Board for six years. He has been associate editor of the Journal of Milk and Food Technology since 1947 and has contributed numerous papers to that journal and other technical journals. Last October he received a Citation Award from that association for distinguished service over the years in that field of milk and food sanitation. Mr. Fuchs also is a fellow of the American Public Health Association.

3-A SANITARY STANDARDS SYMBOL ADMINISTRATIVE COUNCIL READY TO CERTIFY TANKS, WEIGH CANS

The 3-A Sanitary Standards Symbol Administrative Council—which will regulate the identification of dairy equipment which conforms to 3-A Sanitary Standards—is now ready to accept applications for use of an identifying symbol from manufacturers prepared to certify that equipment they produce conforms to applicable 3-A Sanitary Standards.

The Council has announced that, at present, use of the 3-A symbol will be authorized only on conforming storage tanks for milk and milk products and on conforming weigh cans and receiving tanks for raw milk. Applications for use of the symbol on other types of equipment now covered by almost twenty 3-A Sanitary Standards will be invited in due course.

Manufacturers of storage tanks and weigh cans and receiving tanks, who wish to use the 3-A symbol on their products, should send for application forms to C. A. Abele, Secretary, 2617 Hartzell Street, Evanston, Ill.

Authorizations will be specific for each type of equipment, but will cover all models thereof listed in the application. The annual fee for each authorization is to be $25.00, payable with the filing of each application.

The 3-A Sanitary Standards Symbol Administrative

Council—already often referred to in abbreviated fashion as "The 3-A Symbol Council"—is composed of four representatives of the International Association of Milk and Food Sanitarians' Committee on Sanitary Procedures; two representatives of Dairy Industry Committee's Sanitary Standards Subcommittee, representing users of equipment; and two representatives of the Technical Committee of Dairy Industries Supply Association, representing equipment manufacturers.

Representing IAMFS on the 3-A Symbol Council are Mr. Abele, Mark D. Howlett, Jr., Paul Corash and K. G. Weckel.

Representing the Sanitary Standards Subcommittee of Dairy Industry Committee are William Dean, Jr., and A. E. Nessler.

Representing Dairy Industries Supply Association's Technical Committee are Paul K. Girton and George W. Putnam.

"Only fabricators authorized by the 3-A Symbol Council may use the 3-A symbol," a Council spokesman said. "The symbol will indicate to any prospective buyer of a particular item of machinery that the manufacturer of the equipment has certified to the council under conditions of identification set up by the council that the equipment complies with sanitary standards developed carefully by qualified sanitarians, U.S. Public Health Service officers, dairy processors and dairy equipment manufacturers representatively selected from all parts of the country to formulate voluntary 3-A Sanitary Standards for dairy equipment."

The 3-A symbol is comprised of a large gothic letter A, with serifs, on which is superimposed an antique numeral 3.

WILLIAM H. HOTTINGER, JR. RETIRES

Donald F. Bowey, President of Bowey's Inc., announces the retirement from principal duties of William H. Hottinger, Jr., for 29 years assistant secretary and general counsel for Bowey's.

Mr. Hottinger will move his residence to southern California, but will remain with Bowey's, as an advisor and special counsel.

"It is with a great deal of regret," Mr. Bowey said to his executive staff, "that our good friend Bill Hottinger has to relinquish some of his duties. He is going to take a much deserved rest, beginning in February, but will be available to handle any specific problems we may assign to him.

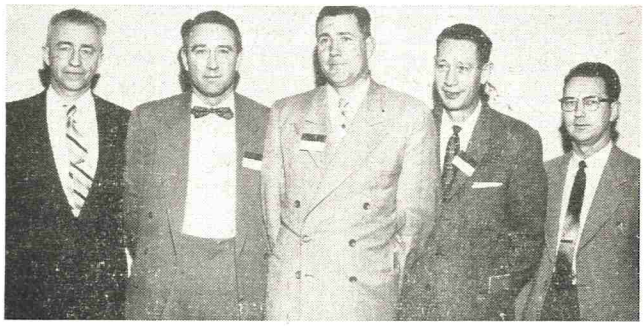
"Bill Hottinger has served with distinction as president of flavoring manufacturers' associations catering to the dairy and ice cream industries, as well as being a member or chairman of their various committees over a period of years."

William H. Hottinger, Jr., graduated from Northwestern University in 1913 with an L.L.B. degree, admitted to the bar in Illinois and to the Federal Courts that same year.

For many years he has made a study of the Food Laws of the various states. He has served two terms as President of the Flavoring Extract Manufacturers' Association of the U.S., and as President of the National Fruit and Syrup Manufacturers' Association (1944-45-46.)

He has taken considerable interest in finance and credits for a great many years and he has served as a Director of the Chicago Association of Credit Men, as Chairman of some of their credit groups and for many years he has been a member of the Legislative Committee of both the Chicago Association of Commerce and Industry and the Chicago Association of Credit Men. He was one of the founders of the Chicago Credit Conference Group of the Dairy Industries Supply Association of Washington, D.C., and served for many years as its Chairman.

Mr. Hottinger is a member of the American Bar Association, and its division of Food, Drug and Cosmetic Law; the Masonic Order; 32nd Degree, and Shrine; and is past commander of Chicago's Eaton-Priddy Post, No. 111, the American Legion, and a member of the Military Order of the World Wars.



WASHINGTON MILK SANITARIANS ELECT OFFICERS

At the annual meeting of the Washington Milk Sanitarians Association, March 14th in Pullman, Washington, the above pictured men were elected to State offices of the Association for the 1956-57 calendar year. They are left to right: Jim Greenway, President-elect, George Andrews, Auditing Committee, C. R. (Mike) O'Connor, President, William Oldenburg, Immediate Past-President and Howard Copenhaver, Auditing Committee.

HELPFUL INFORMATION

Editorial Note: Listed below are sources of information on a variety of subjects. Requests for any of the material listed may be sent by letter postcard to the sources indicated.

Dry whole milk. Proceedings, 194 pages. Proceedings of a symposium sponsored by the Quartermaster Food and Container Institute. Available from Quartermaster Food and Container Institute for the Armed Forces, 1819 Pershing Rd., Chicago, Ill.

Organic insecticides. R. L. Metcalf. A book, 402 pages, $8.50. Interscience Publishers, Dept. J.M.F.T., 250 Fifth Ave., New York, N.Y.

Official methods of analysis, A.D.A.C. Eighth edition of book, $12.00. Association of Official Agricultural Chemists, Box 540, Benjamin Franklin Station, Washington 4, D.C.

Lymphomatosis in chickens. Catalogue No. 1.4/2:-970. A bulletin, 17 pages, 15 cents. 1955. Superintendent of Documents, Washington, D.C.

Chemical handbook guide. A listing of handbooks that deal specifically with many industrial chemicals. 17 pages. Diamond Alkali Co., Dept. J.M.F.T., Cleveland, Ohio.

Efficiency factors and changes in milk distribution 1946-1954. Bulletin No. 312. Storrs Agr. Exp. Sta., University of Connecticut, Storrs, Conn.

Grading of nonfat dry milk solids and sanitary and quality standard methods of analysis. A bulletin. American Dry Milk Institute, 221 North LaSalle St., Chicago, Ill.

Bulk milk handling. Circular No. 510. Wisconsin College of Agriculture, Madison, Wisc.

The safety of artificial sweeteners for use in foods. Publication No. 386. A report by the Food Protection Committee of the Food and Nutrition Board. National Research Council, 2101 Constitution Ave., Washington 25, D.C.

Cebicure or cebitate. An illustrated 32 page booklet on the use of ascorbic acid and sodium ascorbate for various meat products. Merck and Co., Dept. J.M.F.T., 1935 Lincoln Ave., Rahway, N.J.

Foreign material control. Bulletins MD-200 and PL250 describes removal of foreign material with magnetic drums and plates. Homer Manufacturing Co., Dept. J.M.F.T., Lima, Ohio.

Leader's rat and mouse control campaign guide book. A bulletin. Wisconsin Alumni Research Foundation, Dept. J.M.F.T., Box 2059, Madison, Wisc.

Rat and mouse control step by step. Demonstration manual. Wisconsin Research Foundation, Dept. J.M.F.T., Box 2059, Madison, Wisc.

Technical bulletins: No. 4 Calcium chloride in refrigeration; No. 5, Soda Ash; No. 6, Caustic soda; No. 7, Liquid chlorine; No. 8, Chlorine in the treatment of municipal and industrial water; No. 11, Water analysis; No. 16, Calcium chloride. Solvay Process Division, Dept. J.M.F.T., Allied Chemical and Dye Corp., Broadway, New York 6, N.Y.

Modern laboratory appliances. Catalogue supplement No. 11, Fisher Scientific Co., Dept. J.M.F.T., 717 Forbes St., Pittsburgh 19, Pa.

Food 1955. A magazine. Mojonnier Bros. Co., 4601 W. Ohio St., Chicago 44, Ill.

Wisconsin dairy plant security program. Special circular, Vol. 26, No. 5, November 1955. University of Wisconsin, Madison, Wisc.

Icing handbook. Handbook describing the properties of icings, chocolate syrups, etc. Basic Food Sales Corp., Englewood, N.J.

MARK D. HOLLIS HONORED

Mark D. Hollis, Assistant Surgeon General and Chief Engineer of the U.S. Public Health Service was awarded the honorary Doctor of Science degree by the

University of Florida on January 28, 1956 at the mid-year commencement exercises. Mr. Hollis also was principal commencement speaker, addressing the 500 graduates on the subject, "Advancing Technology—A Dynamic Impact on Enviroment and Health."

Mr. Hollis was presented for the degree by Dr. John S. Allen, vice president of the University, and the award was conferred by President J. Wayne Reitz. The citation accompanying the conferring of the degree read: "Mark D. Hollis, distinguished son of our neighboring State of Georgia, scientist, engineer, planner, administrator, and public servant, you have been a leader in making our country and the world a better and more healthful place in which to live. You have attained a place of eminence in the field of environmental health."

In his address Mr. Hollis stressed the increasing rate of new technological developments, the associated build-up throughout the country of metropolitan concentrations of population and industry, and the deterioration of community air and water resources resulting from heavy discharges of wastes. Projection of trends indicates the problem of controlling waste discharges, to limit discharges to amounts which will not overtax the natural purification capacities of air and water resources, will become increasingly difficult and will be a limiting factor in future metropolitan development. The problem is especially significant for Florida, now on the threshold of great expansion and development.

PAPERS PRESENTED AT AFFILIATE ASSOCIATION MEETINGS

Editorial Note: The following listing of subjects presented at meetings of Affiliate Associations is provided as a service to the Association membership. Anyone who desires information on any subject is encouraged to write to the Secretary of the Affiliate Association concerned for the address of the speaker. Information desired then may be requested from the speaker (a copy of the paper presented may be available for the asking).

RHODE ISLAND ASSOCIATION OF DAIRY AND FOOD SANITARIANS
(Annual Meeting, February 15, 1956)

Dr. Richard M. Parry, *Sec.-Treas.*, Box 22, Warwick, Rhode Island. *Connecticut Mastitis Program.* H. Clifford Goslee. *The Importance of Food Inspection to the Armed Services.* Col. George H.
Milk Inspector of the Future. H. L. Thomasson.

FLORIDA ASSOCIATION OF MILK AND FOOD SANITARIANS
(Milk and Food Sanitarians Conference, March 21-23, 1956)
H. H. Wilkowske, *Sec.-Treas.*, Dept. of Dairy Science, University of Florida, Gainesville, Florida.
Registration of Sanitarians. B. G. Tennant.
Legislative Techniques. The Honorable Ralph Turlington.
How the Laboratorian Backs Up The Sanitarian. R. P. Myers.
The Epidemiology of Food Borne Infections. Dr. James O. Bond.
Interstate Milk Shipments and Importations. Alex G. Shaw.
Causes and Control of Corrosion of Stainless Steels, especially in conjunction with Milk and other Food Equipment. Garland M. Riegel.
Food Plant Maintenance. Armin A. Roth.
Insect Control in the Food and Dairy Industries. J. C. Keller.
The Use of the Mobile Milk Products Laboratory. J. D. Dennis.
3-A Sanitary Standards for Dairy Equipment. John Marshall.
The Use of Cleaners and Sanitizers in a Qualtiy Milk Program. Armin A. Roth.
What Sanitarians Should Know about Weights and Measures, including Farm Tank Calibration. Nalls Berryman.
Education and Its Relationship in Food Sanitation Programs. E. Russell Jackson.
The Fieldman. E. P. Yocum, Jr.

TENNESSEE ASSOCIATION OF SANITARIANS
(Annual Meeting, November 30, 1955)
Aaron M. Jones, *Sec.-Treas.*, 321 Jefferson Ave., Oak Ridge, Tennessee.
Report on Memphis Sanitation Educational Program. Arthur M. Teefer.

KLENZADE AUTOMATION CLEANING

An entirely new system of automatic multiple-cycle cleaning for bulk tank pick-up trucks has been announced by Klenzade Products, Inc., Beloit, Wisconsin. The system comes in a package unit including all equipment and automatic timing devices. The tank truck is run up to the cleaning station, the shielded cleaning rotor is lowered, one contact button is pressed, and in a short interval the entire cleaning job is done. Cleaning consists of a series of cleaning and rinsing cycles. There is no manual labor involved — no man enters the tank and there are no soil residues or markings from boots. From beginning to end, the entire operation is automatic. Complete equipment and installation supervision is furnished by Klenzade. Write for information or ask your Klenzade representative.

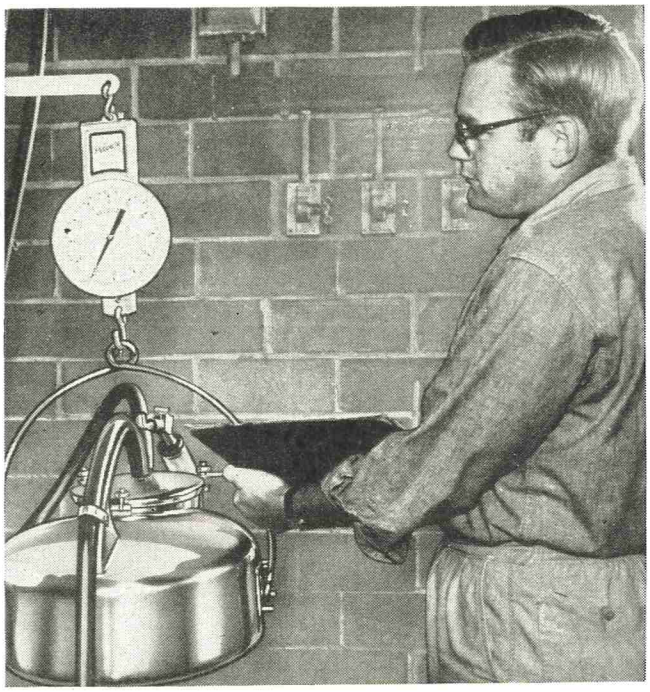


FIGURE 1. Weighpail in upright position for weighing.

WEIGHPAIL FOR PARLOR PIPELINE MILKERS

A new stainless steel weighing device called the "Weigh pail" may well solve the problem of weighing and test-sampling each cow's production in modern milking parlors. By getting rid of easy-to-break and hard-to-clean glass weigh jars, the trend to parlor milking will be speeded along, herd testers believe.

The non-breakable Weighpail hangs on scales with one hose connected to the Breaker cup and the other to the main milkline. Weight of the milk collected in the bucket is accurately read on scales that register up to 60 pounds. Then the Weighpail is tipped and milk flows into the main milkline automatically.

A unique sampling device with a Y-nipple collects a uniform drop-by-drop sample of milk as it moves past. Two state universities have checked and proved the accuracy of this sampling method.

Donald Hemmingsen (above) a herd tester in Illinois, says the new Weighpail is the fastest and handiest device for sampling and testing that he has used. "It saves time and is easy to operate," he says.

The Weighpail, a Surge product, is built by Babson Bros. Co. of Chicago.

FIGURE 2. Weighpail in tipped position to remove sample

APPROVE NEW METHOD TO DETECT FOREIGN FATS

A foreign fat detection method developed by Dr. Mark Kenney of the University of Maryland has been approved as an official test by the Association of Official Agricultural Chemists. Dr. Keeney's test for adulteration of butterfat with substitute fats is based on determining the amount of butyric acid in the sample.

The method as well as its application to a wide range of samples will be reported in the February issue of the Journal of the Association of Official Agricultural Chemists. Dr. Keeney and Dr. H. C. Jackson of the University of Wisconsin will publish a two part article.

The Keeney research has been sponsored jointly by the American Dairy Association and the International Association of Ice Cream Manufacturers. The method was first announced three years ago and has been subject to further tests in other laboratories since that time. The approval by the AOAC gives the test legal recognition.

The new method provides for the dairy industry another means to detect adulteration of dairy products with certain processed fats which have been developed in recent years.

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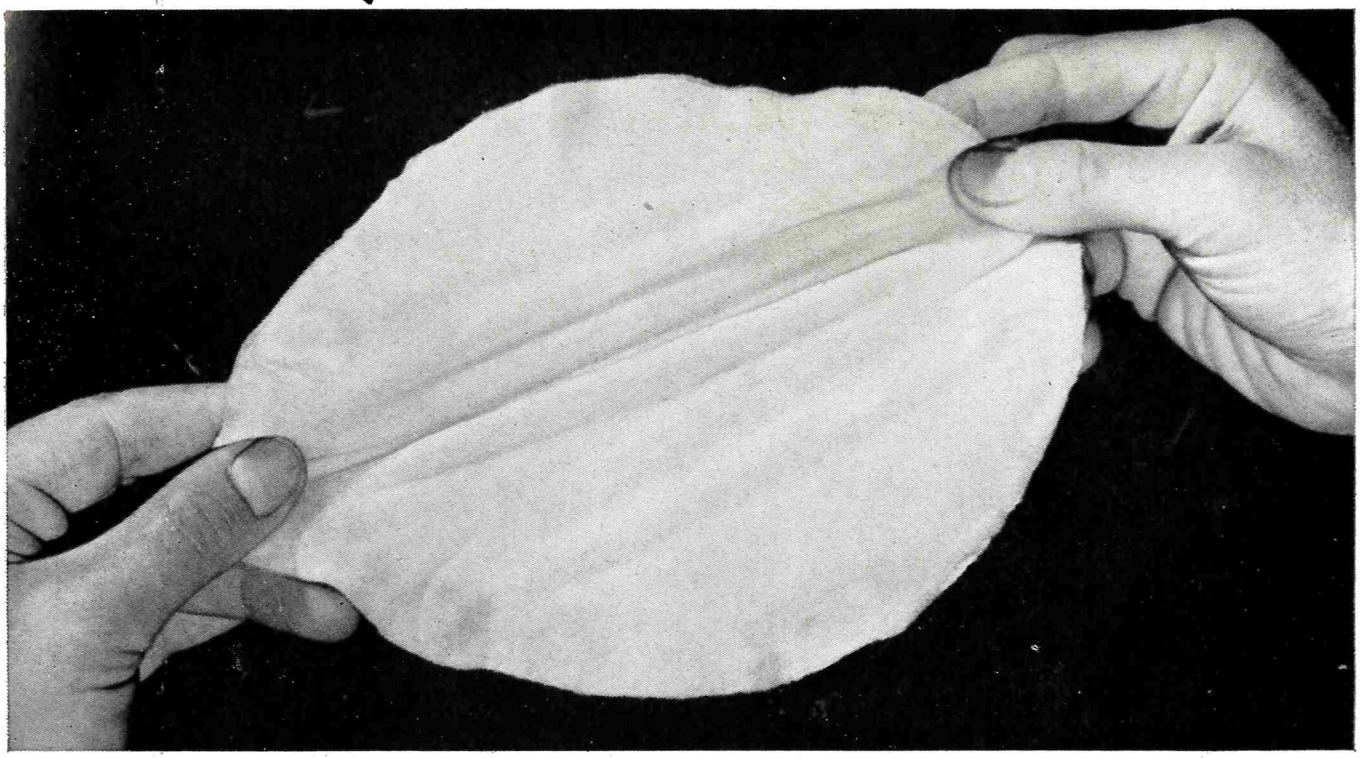

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