

# CONTENTS

## JANUARY. No. 1

Conformation and Its Relation to Milk Producing Capacity in Jersey Cattle. John W. Gowen . . . . .	1
Experiments With and Practical Application of Heat Sterilization for All Parts of Milking Machines. George H. Hart and William H. Stabler. . . . .	33
The Development of Acidity in Milk. Dan W. Steuart. . . . .	52
Proceedings of American Dairy Science Association—1919. . . . .	61

## MARCH. No. 2

Mottles in Butter—Their Causes and Prevention. O. F. Hunziker and D. Fay Hosman . . . . .	77
Suggestions Regarding the Control of Municipal Milk Supplies. H. A. Harding and M. J. Prucha. . . . .	107
The Cause and Control of "Buttons" in Sweetened Condensed Milk. L. A. Rogers, A. O. Dahlberg and Alice C. Evans. . . . .	122
Correction for Volume of Precipitate in the Polarimetric Determination of Lactose in Milk. A. E. Perkins. . . . .	134
Orla-Jensen's Classification of Lactic Acid Bacteria. P. G. Heineman. . . . .	143
The Keeping Quality of Milk as Judged by the Colorimetric Hydrogen Ion Determination. L. H. Cooledge and R. W. Wyant. . . . .	156

## MAY. No. 3

Organization of Investigation in Agriculture. E. W. Allen. . . . .	169
Milk Prices and Cost of Milk Production. F. A. Pearson. . . . .	180
A Modification of the Haecker and Savage Feeding Standards for Dairy Cattle. Andrew C. McCandlish. . . . .	190
Fishy Flavor in Butter. J. T. Cusick. . . . .	194
The Eleventh Annual Students' National Contest in Judging Dairy Cattle. Helmer Rabild. . . . .	206
A Preliminary Report on the Study of the Temperature at which Milk of Different per cents of Acidity Will Coagulate. T. J. McInerney. . . . .	220
A Note on the Acidity of Fresh Milk. T. J. McInerney. . . . .	227
A Score Card for City Ice Cream Plants. F. W. Fabian. . . . .	230
Committee Appointments for the American Dairy Science Association for 1920. . . . .	236
Dairy Notes. J. W. Hendrickson. . . . .	239

## JULY. No. 4

Clarification of Milk. Charles E. Marshall and E. G. Hood. . . . .	245
The Relation of Age of Dam to Observed Fecundity in Domesticated Animals. I. Multiple Births in Cattle and Sheep. Sarah V. H. Jones and James E. Rouse. . . . .	260

An Unusual Outbreak of Ropy Milk. B. W. Hammer and W. A. Cordes...	291
A Comparative Study of Corn Silage in Concrete and Stave Silos. R. H. Shaw and R. P. Norton.....	300
How Do Bacteria Get Into Milk at the Farm and How May Their Number be Reduced? M. J. Prucha, H. A. Harding, H. M. Weeter and W. H. Chambers.....	308

## SEPTEMBER. No. 5

The Efficiency of Milk Substitutes in Calf Feeding. Geo. Spitzer and R. H. Carr.....	315
The Water Buffalo as a Dairy Animal. C. O. Levine.....	340
The Relative Value of the Methylene Blue Reduction Test, the Bromthymol Blue Test, and the Bromcresol Purple Test in Determining the Keeping Quality of Milk. E. G. Hastings and Audrey Davenport.....	353
The Digestibility of Sorghum Mill Refuse. Andrew C. McCandlish.....	367
The Digestibility of Corn Cannery Refuse. Andrew C. McCandlish.....	370
A Bacteriological and Biochemical Study of Experimental Butters. Chas. W. Brown, Lulu M. Smith and G. L. A. Ruehle.....	375
An Associative Study of <i>Strept. lacticus</i> and <i>B. subtilis</i> in Milk. Max S. Marshall.....	406
The Use of Fermented Milk and Milk Diets in Controlling Intestinal Putrefaction. R. C. Fisher.....	414
A Comparison of the Decantation Method with Other Methods for the Determination of Fat in Butter. O. R. Overman and Saichi Okimoto..	425
Abstracts and Reviews of Dairy Literature. H. A. Harding.....	430
Dairy Notes. J. W. Hendrickson.....	431

## NOVEMBER. No. 6

Proportioning the Ingredients for Ice Cream and other Frozen Products. O. E. Williams.....	439
A Study of the Incorporation of Proteins in Creamery Butter. R. W. Wyant	452
Factors Influencing the Viscosity of Sweetened Condensed Milk. L. A. Rogers, E. F. Deysher and F. R. Evans.....	468
Bitterness in Evaporated Milk. George Spitzer and W. F. Epple.....	486
The Effect of Pasteurization on the Number of Bacteria in Milk When this is Determined by the Direct Microscopic Count. E. G. Hastings and Audrey Davenport.....	494
Is Ropy Milk Becoming a More Serious Dairy Trouble. H. A. Harding and M. J. Prucha.....	502
A Comparison of the Butterfat Content and the Total Solids Content of Creams of Varying Richness Separated from the Same Sample of Milk. B. A. Stiritz and O. R. Overman.....	522
A Study in Bulls. Andrew C. McCandlish.....	529
Bacterial Control in Milk Plants. Russell S. Smith.....	540
Abstracts and Review of Dairy Literature. H. A. Harding.....	555
Dairy Notes. J. W. Hendrickson.....	556
Index.....	561