

## PREFACE.

It has for many years past been a recognized fact of all the leading Experimental Stations that a simple and accurate method of determining the butter fat of milk was sorely needed for the the general good of the Dairy public.

Although the general dairy public is rather slow in "catching on" to the great injustice of pooling milk by *weight only*, regardless of the fat it contains.

The wiser heads and experimental workers have for several years discovered the great injustice of the "weight pooling" practice. And further than that, they have seen the great mass of dairy farmers, year after year, feeding cows of all sorts, good, bad and indifferent, thousands of which were not paying for their keep, and are a curse, not a boon, to their owner.

But with no better method at hand than to cream and churn each cow's milk separate for the purpose of weeding out the poor ones, it would be needless to preach cow testing to the average dairy farmer.

Therefore, for the double reason as above stated, the invention of a simple and accurate devise for measuring the butter fat of milk was ardently sought for by the chemists of several of the leading Experimental Stations.

Several years ago Professor Short of the Wisconsin Experimental Station led the way by inventing a method by which the butter fat of milk could be quite readily measured. Although not quite satisfactory, it was a stride in the right direction. Next came the test of Professor Patrick of the Iowa Experimental Station, which was somewhat different and in a measure quite satisfactory. But not quite *the* thing for quick, simple, and accurate work. But to cap the climax, Dr. S. M. Babcock, chief chemist of the Wisconsin Experimental Station invented a simple and accurate test by which the average school boy of fourteen years of age, by carefully reading the instructions can make an accurate butter fat test of a dozen different cows in ten to fifteen minutes time.

The great and wonderful good this invention which Dr. Babcock gave to the dairy public *free* time alone can tell. Through the court-

esy of Dr. Babcock, by whom the writer was greatly assisted in getting up this little book, the author takes this opportunity to thank the doctor for his kindness.

Part I gives reasons why the test should be applied to the cows for the owner's sake, and at the factory it should be applied for justice's sake.

Part II gives a complete description for making the test, not only for fat, but also for solids not fat, and for finding adulterations. It also gives a full and concise description of the composite test, and, finally, shows by actual examples how to divide the money under the test.

Part III gives useful pointers which are indexed and numbered in a manner which can not fail to simplify the subject and increase the usefulness of the book. The writer believes, however, that to thoroughly master the subject the student should not only study each pointer separately, but should reinforce his knowledge in each case by an actual experiment.

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