holm and Lodi to milk industry. Thirty stations are largely occupied with analyses of commercial manures. Eighteen stations test the purity and vitality of seeds. The more usual practice, however, is to combine several of these objects in one. It may not be unprofitable to continue the illustration of our subject by presenting in our own currency, from a table furnished by Professor Johnson, the revenues and working force of ten Prussian agricultural experimental stations for the year 1870:—

Name of Station.	Revenue in Dollars—Gold. Government.	Agricultural Societies.	Analyses of Fertilizers.	Private Contributions.	Total.
Halle	864	....	3,254.40	....	4,118,40
Engenwalde	1,152	417.60	108	....	1,677.60
Bonn	576	606.24	288	....	1,470.25
Kuschen	756	235.16	100.80	....	1,092.96
Insterburg	648	252	44.04	..	944.04
Ida-Marienhuttle	792	216	1,301	....	2,309
Dahme	2,178	324	216	108	2,826
Wende	1,008	1,340	41.76	....	2,389.76
Alt-Morschen	936	83.56	108	184.76	1,317.32
Weisbaden	1,296	....	179.28	....	1,475.28

Each of the ten stations enumerated in the above table has one director. In addition to the director, Halle has three assistant chemists: Engenwalde, Ida-Marienhuttle, Dahme, Wende and Weisbaden two; Kuschen, Insterburg and Alt-Morschen, one and Bonn the director alone. Dahme has also an assistant in vegetable physiology, and Wende an assistant in agriculture.

The State of New York is the Empire State. Its area is 47,000 square miles. A liberal estimate classes one-half the number of counties, thirty in number, as first-class dairying counties, and including those of central New York; and the remaining thirty may be classed as non-dairying. These thirty dairying counties have a cultivated area of 9,364,139 acres, a territory within itself capable of being divided into nearly six States as large as the State of Connecticut, the cultivated area of each being considered. Within this district are kept 1,028,348 cows, leaving only 322,313 in the remaining thirty counties of the State. From the census of 1870 we find that the annual production within this district was 76,834,241 pounds of butter and 21,020.283 pounds of cheese, and 126,497,280 gallons of milk sold, as the dairy product of this portion of our State. If we presume that this butter was worth, upon an average, 30 cents, and the cheese 12 cents, and the milk eight cents per gallon, the vast proportions of this production are strikingly manifest—$35,692,489. It must not be overlooked that in the production of this product a vast capital is invested in lands, stock, in tools, fixtures and implements; in short that it is the most costly of any of our general farm products, so that the great proportion of this sum is absorbed in the actual cost of production. The entire wheat production of the State in 1870 amounted to a trifle over 12,000,000 bushels, which at the high estimate of $2 per bushel would yield a revenue of $11,000,000 less than the dairy product of one-half the State.

Thus the dairy is the most important agricultural interest within the domain, and we have no hesitation in urging that for studies in milk industry, the experimental statistics should be first established; and it is more important to our people at a time like this, of financial embarrassment, when success turns on the ability of the producer to increase his production without enhancing its cost. Connected with our first station there should be a department for the analization of commercial fertilizers for farmers, at a nominal cost. We are now passing that transition period through which our English and German friends struggled so long before they reached a point of safety. In the light of their experience let us hope that we may pass it more speedily. In 1855, said Dr. Voelcker, "that if ever there was a time when the agriculturist had need to exercise special caution in the purchase of artificial manures, that time is the present, for the practice of adulterating standard fertilizers, such as guanos, superphosphates, etc., has reached an alarming extent." In Germany, under the system of the experimental stations, the business is as stable and secure as is our trade in sugar and coffee. A German farmer, in purchasing a fertilizer, demands of the seller an analysis of the article. He takes a sample to one of these stations, where it is analyzed, and, if found deficient, he demands a deduction from the original price in proportion as it is short; and he gets it, too, in accordance with the law. If we would protect ourselves, we must organize a similar system. At the last session of the Legislature of the State of Connecticut, an appropriation of $2,800 was made for this object, and the station is organized and located at Middletown under the directorship of Prof. Atwater. Is it not possible for New York to follow where Connecticut has led the way?

J. V. H. Scovill,
Josiah Shull,
E. F. Jones,
Committee.

Will you allow a lady subscriber to tell the story of her cow-keeping, which has proved a decided success. In purchasing "our cow," we were advised that pedigree is not of primary importance in a dairy, and we were therefore satisfied with the most promising cow we could obtain—a Shorthorn reared on a neighbouring estate of 8 acres of copyhold land belonging to a poor widow. The old lady had recently died, and the lord of the manor had claimed and carried off our subsequent cow, which a dealer brought to us without a name. We dubbed her Heriot. Her calf had been born late in February, the dealer said, and we might expect another calf early in December. In the interim there would be uninterrupted milk, we were informed, except during five or six weeks at the end of the term, when we were to feed Heriot on sweet hay, and allow her to "go dry"—that is, we were to purchase our milk instead of availing ourselves of what she might still give, if we persisted in requiring it, which we were told we had better avoid. We noted down all these details, and began to feel quite farmer-like, though at present our practical experience was simply *nil*.

Now about food. As there was no grass at that early time of year, we were recommended to buy mangel wurzel, hay, and plain linseed cake; and with these provisions at hand, Heriot was established in the rear of our premises, and in a few days the excitement of rather suddenly acquiring a cow, subsided, and we patiently began waiting for grass. At present we were feeling our way along cautiously, yielding to public opinion as expressed by its representative, the dealer, in regard to various matters of detail, but in respect to certain principles we intended to carry out certain theories. A cow is a cow everywhere. She may be pampered in a fine stall, or tied by the neck and hind leg to be milked by a machine; she may become the victim of a horrid covered homestead and a paid police, or she may be half starved in some poor man's byre; but there must be a way between these extremes. My husband and I had seen cows in other countries standing quietly without a halter, and milked into bottles by children, and we were determined our cow should be treated kindly, and should get sufficient air and exercise without being "coddled." Our excellent old man, Ravender, is a person who prefers his own way as a rule. He is not to be driven, and he can find stiles, when he likes, in unnecessary places; but we established a give-and-take system with Tom Ravender, which worked extremely well. He had his way when he could get it, and we had ours on much the same principle. His plans were often destined to fall through, but always accidentally; and I took care he should always have that something in his path to knock about which every man requires.

It is a good point in Tom that his temper is good. He and Heriot never quarrel, and if a flitch of bacon were awarded for kindness to a cow, he might