albuminoids keeps up the flow for a long time, at an almost uniform quantity. This it is that foots up creditably in the 240 or 280 days tests.

Cotton-seed meal, palm-nut meal, or other meals rich in fat, seem to add little richness of fatty matter to the milk, even when long and freely fed. But cows given less food than the large yield of milk demands, the animal system supplies the deficiency, and the cow loses in flesh. Poorly-fed cows show a larger proportion of stearin as compared to the more fluid normal fats, palmatin, and olein in the butter.

Experiments in the feeding of different fodders are more satisfactorily determined by the quantity of butter, by means of careful weighing.

Frequent milking secures a less watery milk, and the last milk of a milking is also less watery than the first drawn.

The production of large quantities of rich milk must mainly depend upon the liberal supply of protein in the fodders, though a proper nutritive proportion must be maintained.

Wolff recommended the following proportions per day for 1,000 pounds of live weight of cow :

Digestible protein	2.5	pounds.
" fat.....	.4	"
" carbo-hydrates.	12.5	"
Nutritive ratio.....1 :..	5.4	"
Total dry matter.....24		"

This is about the relative proportions of the elements in good pasturage. When hay is fed, an addition of nitrogenous and digestible meals must be added, as corn meal, bran meal, bran or shorts, to bring up the ration to the proper standard of excellence to produce a large flow of milk. This proves that there must be a proper proportion of all the elements of food. If the addition of a pound of oil-cake to a ration causes an increase of a quart per day in amount of milk the addition of two pounds may only give half the additional increase of milk and this will depend on the proper proportion of the elements of the food ration.

All of the salts required by the animal system must be daily supplied in food, or otherwise, to maintain robust health. The salts amount in a milk cow to about the following proportions :

Phosphoric acid	.09	pounds.
Lime.....	.13	"
Potash.....	.24	"

Ordinarily, foods contain these substances in abundance. But, as common salt is readily eliminated from the system, a daily demand for it is requisite. It also adds to the palatability and digestibility of fodders, as well as being a stimulant to the appetite. A cow yielding a large flow of milk requires more salt, and will thus consume more food than when the supply is stinted.—*Jersey Bulletin.*

AMERICAN APPLES.

For the following valuable remarks addressed to exporters of American Apples by Messrs. John S. Martin & Co., New York, we are indebted to Messrs. Draper, Covent Garden :—

Before the Apple growers and packers in New York State shall have made their barrel contracts for the crop of 1884, we desire to present for their consideration some suggestions which may be of interest and use. A few years ago, New York State Apples occupied the leading position in the trade. They were considered both in local and foreign markets as the best produced in the country and commanded higher prices than the product of any other State either east or west. Of late years, however, there has been a material change in this respect. The State fruit has steadily lost its prestige with the trade, and goods packed in the Western and North-eastern States, as well as in Canada, and the provinces, have steadly gained in popularity and have commanded decidedly the highest prices. The quality of the fruit raised in this State is certainly equal to any raised in the country; its decline in favor is due, first to the style of package used, and second to the manner of packing the fruit.

The New York State Apple barrel now generally in use contains about 2¾ bushels; it is made with flat hoops and has the unfortunate characteristic of appearing smaller than it really is. Most of the western, eastern, and northern packers use a full three-bushel, round-hoop barrel. To this difference is mainly due the popularity of the latter when in competition with State fruit. Now if a "pony" barrel of Apples could be sold at the same price as a full three-bushel barrel it would be manifestly to the interest of growers to use the former; but that is not the case. There is a very strong prejudice among Apple dealers for three-bushel, round hoop barrels, and this prejudice is so great that they even overestimate the actual difference in the quantity of fruit contained. The prices realised for full three-bushel, round-hoop barrels are not only higher than those obtainable for equal quality in smaller packages, but the difference in price is far greater then the actual difference in quantity contained would justify. During the past season, when Eastern Baldwin in round-hoop flour barrels were selling at 18s. per barrel, State barrels containing Apples of equal quality were unsaleable above 15s.—nearly 17 per cent. less, while, considering the State barrel as holding two and three-quarter bushels, the difference in quantity is only 8 1-3 per cent. Furthermore, the use of the three-bushel barrel would effect a considerable saving to State packers in cost of barrels, labour of packing, and freight.

The unpopularity of the style of barrel used at present in this State is especially marked in the export and local shipping trades. Shipping and export orders almost always call for three-bushel, round-hoop barrels, and can be filled with no other style. Some of the principal Apple dealers of this city, finding by past experience that they cannot profitably handle the State fruit as it has lately been put up, are driven to the necessity of going to other States, west, east, and north, to purchase fruit where it is packed in a manner suitable to the requirements of the trade.

In regard to packing the fruit, there is also much room for improvement, and the fault in this respect is not intirely confined to State packers. A large part of the receipts, especially during the last two seasons, have been "stuffed," the middle of the barrels containing inferior, trashy fruit, topped off with a few layers of good Apples. Buyers soon find this out, and the poor Apples bring no more then they are worth. The stock should be closely graded, the primes and seconds being packed separately and plainly marked. Only one variety should be packed in a barrel, and the kind and grade neatly stenciled on the head. The top layer should show, on opening the barrel, a fair average of the quality throughout the package. Brands which are packed in this manner very soon acquire a reputation among buyers, and command prices which amply repay packers for their care and honesty.

We are convinced, by careful observation of the market, that if State growers will adopt the three-bushel, round-hoop barrel for their crop, and pack their fruit honestly and with careful selection, they will obtain much more money for their product than they otherwise can. Their fruit will be much more saleable, and will speedily regain the prestige with the trade which it occupied a few years since.

[We reprint the above from *The Garden*, a London publication, marked copy of which was sent to us from London as an obvious hint to our Nova Scotian fruit growers.]

THE one sure way to have good cows is to raise them yourself.

CURRANT bushes, as also gooseberries and quinces, may have their branches bent down and covered with earth and make fine plants by fall.