Mary Anne of St. Lambert looks like a cow that had been very much enfeebled by the overtaxing of her constitution during any of her great butter tests, but on the other hand every new test made with her has surpassed the one that preceded it.

The gentlemen who have made these tests have conferred a very great benefit upon the stockbreeding generally, and upon the "Jersey" portion of it particularly.

GENERAL PURPOSE COWS AND DEFINITE PURPOSE COWS.

No intelligent reader of the CANADIAN BREEDER can accuse it of being the organ of any breed or faction. What we have aimed at so far has been to do all in our power to encourage Canadian farmers and stockmen to keep fully abreast of the times, and avail themselves to the greatest extent possible of the benefits resulting from the researches and experiments of intelligent stockmen, agriculturists and scientists, so far as these experiments and researches have any direct bearing upon their everyday pursuits. To this end we have argued, that a farmer should not attempt to make himself a jack-of-all-trades. We have held that if a man wanted to succeed in any particular line he must concentrate his energies on that particular line. We do not mean, of course, that the grain farmer should buy his milk, butter, cheese, beef and pork, nor that the man who wants to make a success of beef growing should buy the bulk of his feed and all the farm and dairy products required for his family. Such ground would, of course, be wholly untenable. What we do urge is, that the farmer should market not more than two or three given products, while it is perfectly proper and economical for him to raise enough of others for home consumption. We do not like to see a farmer fooling away his time marketing a "little jag of hay," two or three bags of oats, a few rolls of butter, a small cheese, a basket of eggs, and a hind-quarter of lean beef, all on one trip. It is with such frittering away of their energies that many of our farmers are kept "with their noses on the grindstone" all their lives. If a man wants to be a dairyman, let him get possession of a herd of good dairy cows as rapidly as his circumstances will permit, and never stop adding to his herd, either by breeding or purchase, till he has enough to utilize all the surplus that his farm can produce over what is necessary for home consumption. Let his dairy cows manufacture into butter or cheese, everything that he does not require to use up on the place. He will, of course, keep pigs enough to utilize the waste from the dairy, and these will require grain, and, perhaps, roots, but at the same time, butter or cheese, one of the two, remains the staple product. There is no selling of raw material, and the farm is worked up to its full capacity.

In like manner, if beef-raising be the object, let the attention be devoted to that. Let the farmer select his stock for beef, and not for milk, butter or cheese production. If he cannot make more money at beef-raising than at any other pursuit, he would have selected some other line more in accord with the capabilities of his farm. He selects beef-growing, however, and, having done so, let him bear in mind that every product of the farm not wanted for home consumption must be converted into his staple product—beef. And here is where we desire to take issue with Professor Brown, of the Agricultural College, who, in spite of his thorough intelligence and comprehensive grasp of most subjects, appears to be still afflicted with Eutopian dreams regarding that bovine myth, the "general purpose cow." His own experiments have afforded to others valuable data, while he himself appears to be disregarding the fundamental lesson taught by them. His favorite Shorthorn stood well, but there were cows that surpassed her for butter, and cows that surpassed her for milk, and all this time no account was made of the relative quantities of food consumed by the representatives of the different breeds. The truth is just this: Some cows convert grains, grass, roots and hay into beef, others convert these substances into butter, and others into cheese. Every pound of butter that a beef-producing cow makes, means that the product of so much of her food has been diverted from the channel in which it would have made the best returns, and in the same way a milch cow that is inclined to be heavy fleshed is not making the best use of the food which the dairyman gives her. If a man wants to sell beef, let him devote himself to that, but the fact that his farm is stocked with Shorthorns, Herefords, or Scotch Polls, will not render impossible for him to keep two or three Jerseys to supply milk and butter for his family. Let his beef cows dry off as soon as the calves are done with them, and then every pound of food they consume will be devoted to beef production.

The question is sometimes asked, "What is to be done with the carcass of the worn out Jersey, Holstein, Guernsey or Ayrshire?" The answer is not hard to find. In the first place, the carcass of any cow that has served out her full period of usefulness in the dairy (say, a term of ten or twelve years), is not likely to be worth much for beef, and will do little more than pay for the feed used in fattening, if, indeed, it will do that. It is not a matter of very great moment how worn out dairy cows are disposed of, but, of course, they will usually find their way to the shambles, where the cow of the heavy fleshed variety would bring a slightly higher price than a representative of one of the deep milking or heavy butter producing strains. But the question for Professor Brown to solve in his next series of experiments will be whether or not the amount of butter lost by feeding half for beef and half for butter during ten or twelve years would not more than cover the price that could be realized for the carcasses of two or three old worn out cows.

Where we differ from Prof. Brown is just here. While he is looking for the "farmer's general purpose cow," we nail our colors to the mast in defence of the "definite purpose cow." If we want to produce beef profitably we shall expect to find those cows that show the greatest tendency to beef and the smallest tendency to milk the animals we want, whether they be Shorthorns, Herefords, Angus, Galloway, Sussex or Devon, does not matter to us. If we want to make butter profitably we shall look for the cows that turn their food into butter and not beef. One animal cannot excel in the production of both beef and butter. The cow that does neither very well, is the nearest approach to a "general purpose cow" that will be found in this world, and we believe that for cows, as for men, the motto should be, "Whatever is worth doing, is worth doing well."

VERY CHEAP PROTECTION AGAINST COLD.

FOR PEOPLE AND ANIMALS.

Prairie Farmer.

Let it be remembered that the heat of our bodies, and of that of all animals, is chiefly produced *within*; clothing and bedding mainly prevent its escaping outward. This escape goes on with more rapidity in proportion to the coldness of the surrounding atmosphere. It is warmed up by fires to prevent its absorbing heat too rapidly from the surface of the body. As heat is not as easily conducted *through* air, as it is through metals, and through many solid substances, the warmest clothing, for example, is that which is porous, or has within it the largest number of air spaces. The crinkled fibres of wool make an immense number of these air chambers in woollen clothing. In down and light feathers, the amount of open space is very great in a small weight of the substance. Brick walls with a hollow air space in their centres are warmer even than are solid walls of any material.

Moving air abstracts heat far more rapidly than still air, because the moment that portion of it in contact with the body is warmed up, it moves away and fresh cool air comes in to take the place of that already warmed, and thus more heat is abstracted. One sitting in a room at 80 degrees, may take cold by having a door open into a room at 75 degrees. When the door is opened the interchange of the colder and warmer atmosphere to secure an equal temperature, produces a draught or air motion. This motion extends to all parts of the room, and the quiescent air about one's body that was nearly at its temperature, is replaced by other air at only 80° or 75°, or colder than the body (which is about 98 degrees). This motion, therefore, brings many successive portions of the cooler air to the body, and far more rapidly extracts its heat. The atmosphere at 32°, with a high wind, or even a moderate one, is a far more rapid extractor of cold than still air at 10 or 20 degrees lower temperature. Now let us

Apply the Above Principles. A single newspaper spread upon a bed confines a thin layer of air under it, and this of itself is a non-conductor of heat, and far less of heat escapes from the bodies of the persons in the bed. At the same time it keeps that layer of air from motion, and thus affords extra protection. Two layers of paper afford a double protection. Let any one try pasting together several sheets of even common newspapers, to form a coverlid, and they will find its protection almost as great as that of an extra closely woven bed spread. Two or three such layers will equal in warmth quite a thick comfortable. They can be pasted or fastened together at the edges for easy handling, and be kept folded in a closet for extra cold nights. This is of great importance to poor persons, and to all who have not an abundant supply of warm bedding. Any one caught from home in cold weather with an insufficiency of clothing, will find much help from simply wrapping a large newspaper, or other paper, around any exposed part of the body, as over the shoulders and back, around the limbs, over the feet, etc. The same in riding. Newspapers under the blankets or robes, if these are not of ample thickness, will be useful in retaining warmth.