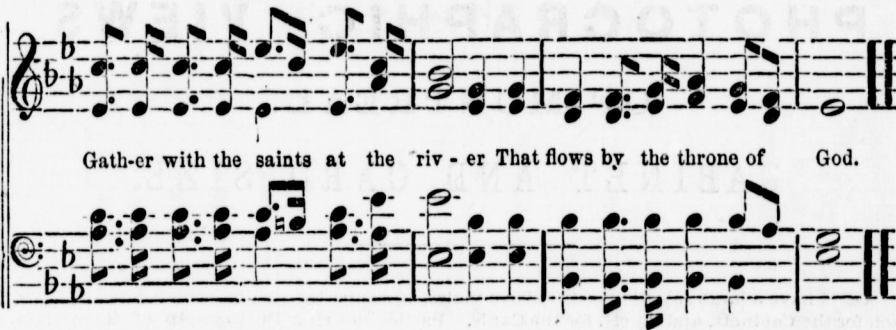




Gath-er with the saints at the riv - er That flows by the throne of God.

At the smiling of the river,
Mirror of the Saviour's face,
Saints whom death will never sever
Lift their songs of saving grace.
Yes, we'll gather, etc.

Soon we'll reach the silver river,
Soon our pilgrimage will cease;
Soon our happy hearts will quiver
With the melody of peace.
Yes, we'll gather, etc.

CUTTING AND COOKING FOOD FOR CATTLE.

Experiments, conducted over a series of years, show that there is a saving in cutting fodder for stock. The food is more completely eaten, and with less waste, than when fed in the ordinary way without being cut. We apply machinery to lessen the labor of mastication, and thus save in the animal economy a certain amount of waste of the system resulting from this labor. Food could be further improved for stock by cooking. Heat is the great solvent in nature. Straw subjected to 120 degrees of heat becomes solvent or a pulp. By cooking food, a greater amount of nutriment may be secured, as repeated experiments have shown. Two bushels of steamed hay, with nothing added except water, equal three bushels unsteamed. Experiments with different animals show that they liked the steamed food and kept in better condition upon it. Other experimenters have found 33 per cent. saved by cooking the food.

Experiments generally show that for feeding swine the cooking has doubled the value of corn, and in no case has the grain fallen below one-third. In steaming hay or straw it is absolutely necessary to wet it. To apply steam at low pressure to dry hay only dried it the more, and high pressure steam burned it and made it worse. But wet the hay and it absorbs the steam. Hay or straw cannot be cooked to advantage without first adding two gallons of water for every five bushels of hay. Another saving is that you can mix poor and good food together, such as hay and straw, and the steaming makes it equal to the unsteamed hay. It should be mixed before the operation of steaming. Pea and bean straw may be thus mixed with hay and steamed, and if this kind of straw is cut early it makes

a most valuable food. Two quarts of middlings are equal to one quart of Indian meal, and for feeding, bran is equal to Indian meal for keeping up the animal, but not for laying on fat. There is 18 per cent. of gluten in the bran of wheat, while corn meal has only 11 per cent.; therefore for building up the frame, bran is one of the most valuable kinds of food if properly prepared.

In feeding, steamed fodder has a remarkable effect. It is like pasturage, giving a sleek coat. Cows fed upon it are contented and no more restless than upon their native pastures. It has a remarkable effect upon horses, curing a cough or incipient heaves.

Roots when fed in the winter should be steamed with the straw, and by diffusing them through the mass, it is rendered more palatable. The steaming apparatus need not be expensive; one for fifty head of cattle could be made for \$50. If not to be subjected to pressure, a pan with steam box attached could be set upon an arch. The pan may be got up very cheaply with wooden sides outside the arch and a sheet iron bottom. But the best way is to have a steam boiler, and conduct the steam through a pipe to the steam box, so that pressure may be applied which would soften their food more perfectly. Such an apparatus with capacity for steaming the food of one hundred cattle can be purchased for \$250—a paltry item in comparison to the saving it effects.

There is another advantage in steaming food, the manure is always ready for use. It undergoes fermentation so rapidly that it does not differ from well-rotted manure. By cutting and steaming the food the manure is fine, and of course more easily spread over the whole surface—a matter of great importance, as all practical farmers understand.—*Utica Herald.*