

The Christian Soldier.

PREPARED for fight, O Christian,
And gird thine armour on;
It is a fearful battle,
Thou must fight till it be won.
Thy sin is forgiven,
Thy treasure in heaven.

Not for the praise of man,
Not for the world's renown;
Not for an earthly hope,
Not for an earthly crown,
Thy sin is forgiven,
Thy treasure in heaven.

Thine arm cannot attain it,
Thy prowess cannot win;
A dire disease is on thee,
The fell disease of sin.
Thy sin is forgiven,
Thy treasure in heaven.

There liveth one can save thee,
He left His throne on high
With guilty man to live,
For guilty man to die.
Thy sin is forgiven,
Thy treasure in heaven.

His blood hath paid thy ransom,
His spirit is thy guide;
Thou canst not fear the foe,
For he is on thy side.
Thy sin is forgiven,
Thy treasure in heaven.

Agricultural.

ORIGIN OF THE AYRSHIRE CATTLE.—The Paris Exhibition of domestic animals, last summer, seems to have thrown some light on the long disputed question as to the origin of the Ayrshires. A breed of cattle from Denmark, exhibited on that occasion, so strongly resembled the Ayrshires, that many believed them to be descendants of that breed, as it was known that many Ayrshires had been exported to Denmark. In answer to an inquiry on this subject, the editor of the *North British Agriculturist*, in that paper of October 29, says: "We had opportunities of knowing that a considerable importation of Ayrshire stock into Russia, Prussia, and Denmark, had taken place for some years past. On seeing the cattle in the Paris Show, referred to, we inferred that they were descendants of imported Ayrshires; but the Professor of Agriculture in Copenhagen, Mr. Jorgensen, and the Danish representative at Paris, Baron Delong, informed us that they were the indigenous breed of Holstein, and their additional representations satisfied us that this Holstein breed is the original Ayrshire. The early connection of this country with Denmark, fully confirms the conjecture, that the Sea Kings brought with them some of their valuable domestic animals, and of these, the breed now known as the Ayrshires."

GROUND OATS.—Ground oats furnish more nutriment, and keep the bowels in better condition, than when served out whole. By grinding the oats we separate them into a myriad of particles, and present them to the gastric solvents in a form calculated to secure their speedy digestion—in fact, they are in a condition favorable to speedy insalivation.

Ground oats are more nutritious than whole, for the same reason that flour is more so than unground wheat.

Ground oats contain more of the nitrogenous, or flesh-making principle, than any other kind of horse food; at the same time they furnish a mixture of coarse and fine food—the husk of oats constitute the first, and meal the latter. The coarse material serves to keep the bowels in a soluble condition—irritate and excite the mucous coat, and thus obviate the necessity for drastic medicine. This kind of food is decidedly the healthiest for working horses. They require, however, a certain quantity of sweet hay, in view of distending the stomach to a healthy capacity.

AGRICULTURAL DISCOVERY.—A Paris letter-writer states that a scientific gentleman discovered, two years ago, embedded with some em-

balmed bodies, a species of wheat not then in existence. In the time of the early Gallic kings a certain quantity of wheat was placed in the collins of embalmed bodies. Some of it was sown, and it yielded from sixteen to twenty stalks to a grain, while there was an average twenty more grains in the head than in the ordinary wheat. A considerable quantity of this ancient wheat was sown on the government farm last fall. Great reports are received of its productiveness. The ordinary wheat of France is believed to be only a degeneration of these ancient grain, deteriorated by reproduction.—This discovery takes France back fourteen centuries for feed wheat, and it is expected will put her in possession of one-eighth more agricultural wealth than she possessed before the discovery.—*Boston Journal*.

REFUSE STRAW, &c., FOR COMPOST.—When we commence the business of economising in one department, we are generally incited by the highly gratifying results which reward our efforts, to extend our experiments to other departments. This has been the case with me; and will, I have no doubt, be found to have been the case with every person who has succeeded, even tolerably, in the farming business. I had remarked that long straw, corn-stalks, and meadow-hay, when thrown into the compost-heap, were very slow in decomposing, and that it appeared to remain, in no small degree, the decomposition of the ingredients. This I attributed to the loose, unconsolidated manner in which it necessarily remained for a long time after the materials were mixed and massed together; for, notwithstanding air is essential to the putrefactive process, yet it is so only to a certain extent; too large a supply, acting very much the same as too large a supply of water, which has a preservative effect, even upon bodies naturally the most fermentable.—I conclude that both straw and corn-stalks, when used for this purpose, would be much sooner reduced if cut into pieces so small as to admit of their being in some measure incorporated with the other stuff of the heap. This was done and about half a ton of spoiled corn-bus and refuse rye-straw cut up and mixed with a quantity of other materials—muck, green weeds, horse-mould, and about one cord of soil which had been taken from beneath a building where I was constructing a cistern. As expected, the decomposition was much hastened by this process, and was perfected in a much shorter period of time even than I had anticipated. Without becoming too compact, the heap was sufficiently solid to bring every piece of the corn-stalks and rye-straw in contact with the more moist constituents of the mass, while they served to keep open the pores, and insure the due filtration of water through the heap.

FATTENING ANIMALS.—Substances in which the nutriment is much concentrated should be used with care. There is danger especially when the animal is first put to feed, that more may be eaten at once than the digestive organs can manage. Meal of Indian corn is highly nutritive, and when properly fed, causes animals to fatten faster than almost any other food. They will not, however, bear to be exclusively kept on this article for any length of time. Meal made from the heaviest varieties of corn, especially that grown in the northern and eastern States, is quite too strong food for cattle, sheep, or horses to be full-fed upon. Hence one of the advantages of having the cob ground with the corn, by which the nutriment is diffused through a greater bulk, lays lighter on the stomach, and is more thoroughly digested. The effect of pure corn meal on animals we suppose to be similar to that sometimes produced on our own species by the use of fine wheaten flour—the subject becomes dyspeptic, and is forced to use bread which has the bran mixed with the flour. The mixture of the cob with the corn answers the purpose of bran—the health of the animal is preserved, and the process of indigestion goes on uninterruptedly. In fact, the advantages of grinding the cob and corn together for feeding cattle may be said to be well established. For hogs, the benefit of the cob is not, we think, so evident; those animals appearing to be better adapted to taking their nourishment in a concentrated form than those which ruminate or

chew their cud. Yet food sufficiently bulky to effect the distension of the bowels is necessary for hogs.

Hay or straw cut into lengths so short as to be readily mixed with meal answers a good purpose in rendering the meal easy of digestion, and in enabling the animal to extract all the nutriment from it.

The conclusion arrived at from the result of a series of experiments, instituted by the Highland Society of Scotland, a few years ago, was that the superiority of cooked, over, uncooked food for cattle is but trifling, and not sufficient to balance the cost; but for hogs, the extra cost preparation was repaid.

The appetite and health of the animals are promoted by giving a variety of food: This fact has led to the preparations for fattening stock. For fattening hogs we have used, with advantage, the following mixtures: 1. Two parts potatoes and two parts pumpkins; boiled together until they can be easily mashed fine, then add one part meal, stirring and mixing intimately together. The heat of the potatoes and pumpkins will scald or cook the meal, and when cold, the mixture will be a stiff pudding. 2. Two parts of potatoes and two of ripe palatable apples (either from corn; barley, or oats and peas, allowing the same weights), and mix together while the potatoes and apples are hot.

Hogs are more fond of food when it is slightly fermented (not becoming pungently sour), and they appear to fatten faster if it is given to them in this state. We have never seen hogs thrive faster than when fed on these mixtures, with occasionally a little dairy slop; and we have always found the pork solid and of good quality."

THE ARCTIC SHIP RESOLUTE.—We learn from a letter in the *Boston Advertiser*, written to H. Grinnell, Esq., by his son, now in England, that the passage across of this interesting ship was very rough and boisterous, a continued gale, oftentimes blowing almost a hurricane; but, by great care and watchfulness, and an excellent crew, they arrived at Spithead in safety, though they were very near being lost off the Scilly Islands, and in fact everybody on board believed that their fate was sealed. A furious gale had been raging, which suddenly ceasing left a very heavy sea. This, with a current of 21 or 22 knots, was setting the ship on the rocks. Every one on board expected destruction, but they were saved by a miracle as it were. A light air springing up, every stitch of canvas was set, and after an hour of most anxious suspense, during which the vessel bravely held her own, the wind freshening enabled them to work off the shore. Had she struck, Captain Parson thinks that not a life could have been saved.

NEW YORK, JAN. 8.

The Tribune correspondent says the appointment of Mr. Villiers, as minister from England, was not formally announced in England, but it is undoubted. Mr. Dallas writes privately that the change of intention was not occasioned by the appearance of the ship *Resolute*, although there is reason to believe that the preparations of this Government to dispatch her, and the character of her mission, produced much impression on the English Official Council. It is the intention of the Administration to reciprocate in every proper way the attentions manifested to Captain Hartstein and his associates, who are soon to arrive in a British war steamer. Instructions will be issued to receive her with proper salutes at the New York navy-yard, and the officers will be invited to Washington to be welcomed by the hospitality of the President and Cabinet.

The *Quebec Gazette* of the 6th says that about six o'clock last evening a fire broke out in the shipyard of W. G. Russell, Esq., Point Levi, which consumed a splendid vessel in the course of construction; together with the workshops connected with the shipyard.

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