

## Wasting Brain and Nerve Force

AND UNDERMINING HEALTH BY USELESS WORRY—NEW VITALITY OBTAINED BY USING

## Dr. Chases Nerve Food

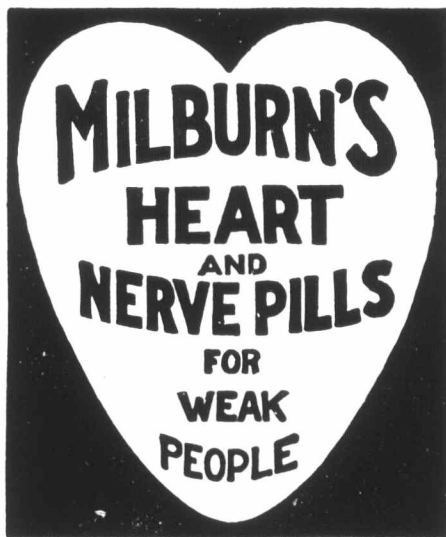
Brain and nerve force is squandered in a way which would be utterly condemned in the use of money. And of what value is money as compared with health?

By useless fretting and worry, by overwork, and by neglecting to take proper nourishment, rest and sleep, strength and vitality are frittered away and no reserve force is left to withstand the attack of disease.

Dr. Chase's Nerve Food is valued because it actually increases the amount of nerve force in the body, overcomes the symptoms arising from exhausted nerves, and gives that strength and confidence in mind and body which is necessary to success in life.

Nervous headache, brain fog, inability to concentrate the mind, loss of sleep, irritability, nervousness and despondency are among the indications of exhausted nerve force. These are the warnings which suggest the necessity of such help as is best supplied by Dr. Chase's Nerve Food.

If you would be healthy, happy and successful, test this great food cure, 50 cents a box, at all dealers, or Edmansson, Bates & Co., Toronto.



These pills cure all diseases and disorders arising from weak heart, worn out nerves or watery blood, such as Palpitation, Skip Beats, Throbbing, Smothering, Dizziness, Weak or Faint Spells, Anaemia, Nervousness, Sleeplessness, Brain Fog, General Debility and Lack of Vitality. They are a true heart tonic, nerve food and blood enricher, building up and renewing all the worn out and wasted tissues of the body and restoring perfect health. Price 50c. a box, or 3 for \$1.25, at all druggists.

food stuffs varies widely. Hay and straw furnish little nutriment relative to their bulk, but they are necessary for reasons previously discussed. They form the bulk of the excreta, the cellulose, and its modifications, of which fodder is mainly composed, being indigestible. Roots supply carbohydrates chiefly, as sugars and some mineral salt. They contain from 85 to 90 per cent. of water, and have a laxative effect on the bowels. Meals and grains are rich in nitrogenous matter, and possess a relatively high percentage of mineral matter. Water is present in quantities ranging from 10 to 12 per cent. Grains are rich in nitrogenous albumin matter, fats or oils and carbohydrate. All food stuffs contain more or less waste material, but this decreases with concentration. It is in specially prepared products that we see that the various forms of food is supplied

contain albuminoids, fats, carbohydrates, minerals, water, and indigestible substances.

### THE DIGESTIVE FERMENTS.

We may now consider the digestive process in detail. The saliva secreted by the glands in the mouth contains an active ferment ptyalin, which converts carbohydrates (starches) into soluble and diffusible sugars without itself undergoing any change. The oesophagus is a cylindrical muscular channel, taking no part in the digestion of food, but forming the common duct to the various digestive organs. The paunch, into which the food first passes, is a large muscular bag, very elastic, and lined on the inside with numerous absorbing villi and secreting glands. In this organ the food is "churned" and moistened to a pasty consistency, this forms the cud. The villi absorb some of the digested carbohydrates. These villi are small conical projections on the wall of the stomach. They are enveloped in a permeable cellular membrane, and each is provided with numerous capillaries. The villi are most active in the duodenum and are less numerous in the large intestine. After the regurgitated cud has been chewed it is conveyed to the mannyplies, the folds of which are thickly covered with papillae. These filter the digested portions of the food as it passes along. The mannyplies is the seat of the disease known as dry murrain, and when post mortem examination is made the spaces between the folds are found to be packed with dry, indigestible, vegetable tissues. The digestive tract is completely blocked, and the efficacy of any drench may be ascertained by observing the distance it has penetrated into the compressed mass. From the mannyplies the mass enters the true stomach or reed. Here gastric digestion takes place. The gastric juice, which is secreted by numerous glands in the wall of the reed, contains a ferment, pepsin and some free hydrochloric acid. The ferment converts insoluble albuminoids into soluble and diffusible peptones. The acid favors the action of the ferment and also acts upon the carbohydrates. The gastric juice has a slight, solvent action on oils. Absorption, secretion, and digestion proceed concurrently, and after a short time the food enters the duodenum, into which the bile from the gall bladder and the pancreatic juice flow. The latter contains several ferments the most active being trypsin, which completes the unfurnished work of the fat ptyalin and pepsin and renders the fat diffusible. The bile has little or no direct action on the food. Its alkalinity facilitates the work of the trypsin which, unlike pepsin, acts better in an alkaline medium. In some cases the bile dissolves fats and its action on cell membranes enables them to allow the passage of minute drops of oil. Absorption by the villi is very rapid as the food is constantly in motion. Absorption and secretion are kept up as the food passes along the intestines, but near the rectum these processes diminish and cease on reaching the end of the large intestine. Some of the absorbed food, however, is not suitable for animal nutrition and this, consisting chiefly of nitrogenous substances, is passed out in the urine. These rejected materials are separated in part by the liver as the blood containing the assimilated food from the digestive organs passes through it. The final filtration is the work of the kidneys, which act like blood scavengers. The carbohydrates refuse is expired as carbon dioxide gas, and some of the fat is exuded in perspiration.

The albuminoid constituents incorporated into the animal system are muscular tissue, hair, hoofs, horns and chiefly concerned in the formation of cartilage. The carbohydrates supply energy chiefly as also do fats, the most of the latter, however, is stored up in connective tissue folds. The mineral matter goes to the skeleton and various tissues. All the cells of the body are more or less bathed in water.

An interesting feature in digestion is the part played by bacteria. These minute organisms enter the alimentary tract from the food or body by way of the mouth. The animal's hair is all covered with particles of bacteria. These are transferred to the mouth. Bacteria decompose animal

and vegetable matter resolving it into alcohol and lactic acid arise. The simpler chemical compounds. The products are converted into soluble albuminoids. All these processes take place in the absence of air, the decomposition suitable degree of moisture and temperature of the excreta and urine is continued by other bacteria. *Farmers' Gazette.*

Frank A. Vanderlip described the discomfiture of a lawyer blackballed by a club. "He was so mad," said Mr. Vanderlip, "that he actually had the audacity to write to the club's secretary and demand the name of the man who had blackballed him. The secretary's reply to this outrageous and absurd letter struck me as being very funny. It was: 'Dear Sir, I have received your letter, but the name of the person who blackballed you. His name

## Guarantee Against Unsatisfactory Harvesting

WHEN you purchase a Deering binder you secure insurance against unsatisfactory harvesting. It's just as important to insure your crops against unprofitable harvesting as it is to insure your property against fire loss.

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You see how essential it is to have a good binder. You must have a machine that will harvest all your grain quickly and economically so that you will be able to realize every dollar possible out of your crop; in other words, you need a Deering.

The Deering binder is built to cut, elevate and bind all the grain, no matter in what condition the field may be.

The reel will bring tall or short, down and tangled grain to the sickle without fail; the elevators will handle it whether it be light or heavy, and the binding attachment will throw out nice even banded bundles.

When a field of grain is harvested with a Deering, you won't find crow's feed scattered all about; you won't find the grain lying in

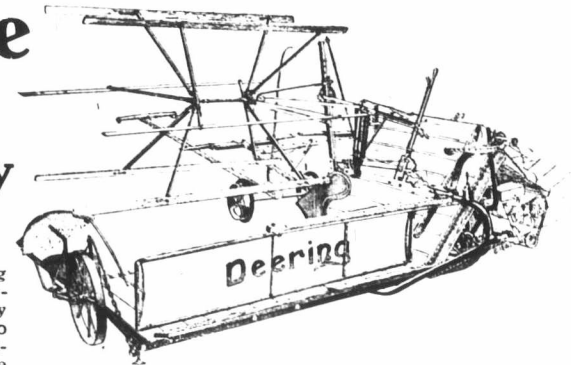
patches where the reel never picked it up. The Deering is built to harvest the crop in the right way.

Deering binders can be purchased with either a 5, 6, 7 or 8-foot cut.

The 8-foot binder is equipped with a tongue truck, which materially reduces the neck weight and draft.

The Deering line of harvesting machines is complete and includes, besides grain and corn harvesting machines, a complete line of hay-making machines—mowers, tedders, various styles and sizes of rakes, hay stackers and loaders.

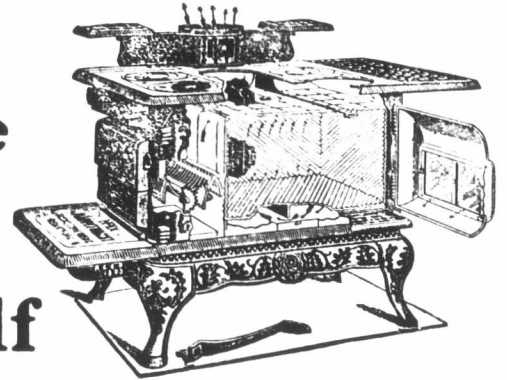
Call on the Deering agent and let him explain to you why a Deering machine harvests in the right way. These local agents are found everywhere, and will be pleased to give information and a catalog concerning the Deering machines.



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