

Work Is Easy  **Expense Is Light**

Church's ALABASTINE is as simple to prepare and to use as it is superior to other wall coverings. Just mix with cold water, and this PERFECT, EVERLASTING WALL COATING is ready for decorating. Church's

ALABASTINE

The Sanitary Wall Coating

is a cement base, in twenty tints and white. It hardens with age. A child can prepare it. Any man can use it to beautify the home. Women with their natural taste for good looks and pretty home surroundings can get splendid results with ALABASTINE.

Write for book about ALABASTINE and how to use it. FREE. Hardware and Paint Dealers everywhere sell ALABASTINE.

THE ALABASTINE COMPANY, LIMITED, PARIS, ONT

THE PROCESS OF DIGESTION IN CUD CHEWERS.

The cow and sheep are ruminating animals, and, their natural diet being herbage, we find the digestive apparatus adapted to deal with bulky and relatively indigestible materials. Improvements in stock feeding have led to great changes in the nature and composition of food stuffs, and perhaps our breeders may in the distant future evolve animals capable of thriving on a diet of purely concentrated food. Until this end is attained we must not tax nature's patience too heavily in this connection. It is quite evident that the digestion of hay, straw and chaff is an expensive item in animal nutrition. Much energy is wasted on a great mass of useful vegetable tissue. The up-to-date stockman must supply a ration of the greatest concentration, consistent with the proper performance of the digestive functions. It is a well-known fact that sheep and cattle must be supplied with bulky food, but this fact should not deter our expecting one day to see the homestead stocked with sheep and cattle able to put on flesh rapidly on a diet of compact, rich substances alone. The hope is not a futile one. We have

seen wonderful instances of evolution in the development of farm animals, and the power of un-inheritance is gradually diminishing the traces of those conditions which nature deemed compatible with a wild and insecure state of life.

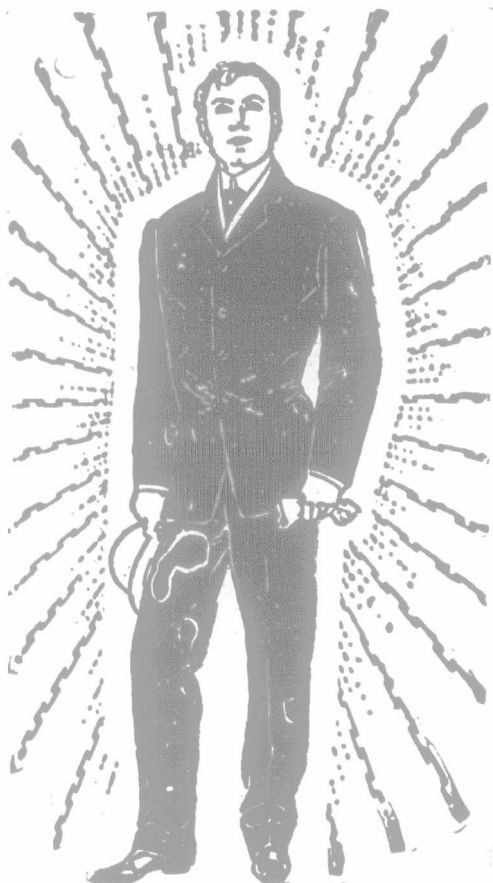
There is a vast difference between the wild cattle of Chillingham and the modern Shorthorn—a creature of evolution, and the man who proposes to breed and feed high-bred stock must possess some intelligent notion of the structure, functions, and requirements of the specialized animal machinery he controls. Otherwise he may undo the work of centuries. Old time method must be abandoned as they only lead to disastrous and, in many instances, fatal results. Bad management continued over a few years will convert a herd of valuable stock into a state of original mediocrity. In every industry invention and efficiency are eagerly welcomed. Can agricultural pursuits exist on the prestige of obsolete systems? No. If we would have agriculture take her place as the leading industry of the world we must make science subservient to her interests, and we must develop the minds of our husbandmen in order that they may appreciate the wonderful phenomena that work for and against their welfare. The time when the land furnished wealth for naught is gone, and old time systems of stock management cannot obtain in the face of modern competition.

The ruminant stomach is a wonderful and exquisite organ. The oesophagus leads from the mouth into the first stomach or paunch, and also by means of a muscular groove above the reticulum into the manyplies, from which the food passes into the reed or true stomach.

The dentition of the cow and sheep is similar. There are no incisors on the upper part of the mouth, and very rarely canines. The lower canines, one on each side, are in the same series as, and similar to, the incisors, of which there are six. These teeth grind against the hard upper gum. The tongue is very rough, and when grazing the animals pass it round a tuft of grass and draw the herbage into the mouth. There are six premolars and six molars, three on each side of both the upper and lower parts of the mouth. There is a gap between the canine and premolars on each side of the lower jaw. The food when taken first into the mouth is chewed slightly and moistened with the juice secreted by salivary glands, which occur in several parts of the mouth (we will deal with the functions of the various digestive juices and the composition of the food, later). When swallowed, the partly-masticated mass passes into the paunch. After feeding the animal usually lies down and soon begins to "chew the cud." This operation consists of the regurgitation of the food from the paunch back into the mouth, where it is thoroughly chewed, a copious secretion of saliva accompanying the process. The food is again swallowed but now instead of entering the gullet it passes along the groove above the reticulum into the manyplies. This organ is lined with folds, similar to the pages of a book, and between them the food passes, and eventually enters the reed or true stomach. The food remains here for some time—half an hour to an hour, according to the composition, and is then passed on to the duodenum. The partially digested food is conveyed along the intestines by the peristaltic action of the muscular wall into the rectum or hind gut. Digestion begins in the mouth and ends in the large intestine, and as the soluble and insoluble matter passes along, the former is absorbed so that when it reaches the rectum nothing but indigestible matter remains. This then is a rapid survey of the passage of the food through the alimentary system, without considering the various physiological actions which proceed simultaneously, and also subsequently.

The food of sheep and cattle may consist of grass and clover, hay, straw, roots, meal, grain, and cake. Water, when plenty of roots are supplied, is sometimes withheld. This is erroneous, because water facilitates the action of the ferments in the digestive juices, by dissolving the food particles, and acting as a vehicle for their distribution. The chemical composition of the above

FREE TRIAL UNTIL CURED



My offer to all who lack Strength and Vigor, who have Rheumatism, Lumbago, Sciatica, Lamé Back, etc., is:—Use my Invention until Cured, then pay me. I ask not one Penny in advance or on deposit.

A man in good, vigorous health is full of electricity. The eye and brain sparkle with it, and his nerves and muscles are strong and elastic as steel. He is successful in business or his occupation, and his wit and general good nature makes him sought after by all. Could electricity be seen he would appear as in the illustration—emanating "something" you instantly feel as you approach him. This "something" is simply his natural electricity. We call such men "magnetic." Are you one? If not, don't you want to become one? During 40 years practice in Electricity I have aided more than a hundred thousand to become so. Men have come to me broken down from overwork, worry, or abuse of nature's laws, having exhausted all medical and drug treatments and apparently past aid, suffering tortures from Nervousness, Exhaustion, Varicocoele, Rheumatism, Lumbago, Sciatica, Lamé Back, Wrecked Stomach, etc., and even these I have helped to regain their health and strength—made them men like the above. I can do the same for any man who will use my invention, and who is not too far gone for help.

I Cure you before you pay me One Penny

My treatment is very simple. I use Electricity as given by my famous Dr. Sanden Electric Herculex Body-Battery (latest patent, Mar. 7, 1905). Worn only during time you sleep, it fills your body full of the soothing, strengthening current, and in the morning you awake full of life and vigor, prepared to face the world however you find it. Two months' use generally cures the worst cases. Use the Herculex for that length of time, and if you are well, pay me. If not, return it—price when cured from \$5 up. Liberal discount if you pay cash for it.

As the originator and founder of the Electric Body-Battery system of treatment, my 40 year's success is the envy of many, and my Herculex is, of course, imitated (what good thing is not?), but my great knowledge to advise and direct my patients is mine alone and cannot be imitated. It is given free to all who use my invention until the cure is complete. My Herculex is guaranteed to give a current instantly felt, or I forfeit \$5,000, and to last for at least one year.

Call or send for My Electric Herculex to-day, or if you want to look into the matter further, I have two of the best little books ever written on electricity and its medical uses, which I send free, sealed, upon request.

DR. C. F. SANDEN, 140 Yonge Street, TORONTO, ONTARIO.

Also complete establishments, with competent physicans in charge, at

San Francisco, Cal., 907 Market St.
New York, 1151 Broadway.
Montreal, Can., 132 St. James St.
Paris, France, 14 Rue Taitbout.
London, Eng., 15 Hanover St.
Stockholm, Sweden, 36 Malmiskilnads.
Calcutta, India, 7 Wellsley Place.

Canton, China, 73 Maine St.
Buenos Aires, South America, 15 Artes.
Rio Janeiro, Brazil, Largo el Carioca No. 22.
Montevideo, South America, 18 de Julio, 122.
Sao Paulo, South America, 5 de Nov. No. 62.
Santiago, Chili, Cassilla, No. 2.
Lima, Peru, Quidre No. 17.

Bombay, India, 75 Hornby Road.
Madras, India, 162 Mount Road.
Cape Town, South Africa, 12 Plein St.
Johannesburg, South Africa, 77 Eloff St.
Yokohama, Japan, 51 Yamashita St.
Tokio, Japan, 15 Guiza St.
Hong Kong, China, 34 Queens Road.

It Pays to Advertise in THE FARMER'S ADVOCATE.