

## AGRICULTURAL.

### The Granger's Cow.

It is interesting to note how the animal forms and uses adapt themselves, or rather are adapted, almost unconsciously, to the ever changing wants of modern civilization. When the rail-roads dispensed with the stage-coach the horses that were adapted to the coach began to disappear and the horse adapted to the heavy drays of the city put in his appearance. When wealth accumulated in the cities and there was money to spend in keeping up stylish equipages, the modern coach horse began to appear and the old breeds were revived and adapted to the new demands. When the fisheries began to decline and the whole world was in need of light, the bacon hog became a bunch of fat, and when the rock began "to pour out rivers of oil" breeders began to gather up the old breeds on which they had made their improvements and breed for lean as well as fat. However fixed the form of the individual may be, the form of the various breeds and races is plastic in the extreme, and, provided changes are made gradually and wisely, can be moulded into any desired shape. Breed, selection, use and feed are the means by which any breed can be modified to suit the demands of civilization as they may arise.

Although the time required may be longer, cattle are no less flexible than any other stock. Climate, soil, breeding, feeding and use are continually changing and modifying the most fixed and established breeds, and it is only a question of time when each locality can have what it really wants whether that is really the best thing for it or not, and hence we find the types of cattle continually changing with the changes in the conditions of agriculture.

The Jersey has driven the larger cow, of whatever breed, from the towns and cities, the beef type of Short-horn has driven the milking type from the farms, where milking is not regular, while the milking type of whatever breed, has driven the beef type from the districts where dairying is a specialty. Each district of country is acquiring its own type of cow. In the dairy district where milk is everything, and beef nothing, cows are selected for the special purpose of producing milk and butter, and everything else is sacrificed to that. The calf is "deaned," and though fit end for a creature out of place, and the entire energies of the cow devoted to the one end of production of milk. On the plains and in the corn-and-cattle country there is no attempt to develop the milk flow beyond the amount needed for the calf, and here again we find what may be called a "special purpose cow," whether that purpose be the production of a calf fit for the range or for fancy beef. Between these there is another "special purpose cow" needed and coming into existence, which, for want of a better name we have called the "granger's cow." Unfortunately for this cow there is as yet no one breed so exclusively fitting the requirements of the situation that we can say, when the granger's cow is asked for, "Lo, here; or lo, there."

There are approximations to it from several sources, closely related types coming forward with the claim from several different directions. For example we have the common grade cow of the country. It is remarkable how the native cow of the praires, and by the "native" we mean the cow of unknown blood, generally a mixture of all bloods, develops in the direction of a milker. We have known scrubs that have been family cows for several generations that have developed milking qualities that would put to shame many individuals of the milking breeds with very long pedigrees. We cite this fact, with which many of our readers are familiar, merely to point out the more important fact that the environment of the prairie is a dairy environment and that soil, climate and the grasses are working with the dairyman and not against him. But the "granger's cow" must be more than a milker; she must have beef qualities as well, and, in grading up to get these beef qualities, farmers have used sires in whose dams there was so little of the milking quality that they have, to use the common expression, "bred the milk out as fast as they have bred the beef in." So long as dairying did not pay this was a matter of little importance. Dairyman are now beginning to find out their mistake and hence the demand in all directions for bulls that combine beef and milking qualities.

The "granger cow" must have size, for she belongs to fat pastures and will get the size in time, no matter what breed is selected. She must have refinement and beef quality, not in its perfection, for that is not to be expected in an animal of double merit, any more than we expect the Merino fleeces on the Cotswolds, but she must have enough beef quality to enable her calves to bring very near the top of the market. The cow on the praires does not feed on salt marshes nor on slough grass, nor does she browse for a living and hence time will give her refinement of form no matter what the breed, because she feeds on as fine grasses as grow out of the soil. Therefore in selecting the materials out of which to evolve the "granger's cow" these two things, size and refinement of form, should be secured in the first place. From her make-up should be excluded the small and the coarse and everything else that militates against the object sought to be accomplished. For example, sires should not be used that have been bred away from milking lines, no matter what the breed or what other merits they may possess.

Some farmers are aiming at the formation of the "granger's cow" by using Short-Horn bulls of the milking type, when they can find them, on the native cows of the country. Others are using grade Short-horns, that have been milked continuously for years and generations with the class of sires aforesaid. Others are using Red Polled sires on the best cows they can get, while still others are using Holsteins. Whichever of these methods are pursued, and success may be found in either, the important point is to milk, and not only milk, but to test the milk of each cow, and find out what results are actually being obtained. Without this, all efforts will be made in the dark. This point cannot be emphasized too strongly. It will not do to judge by the quantity of the milk. Quality and Quantity are the points to be considered. It is important also to keep up the size. This can be done by feed and that only, and the important point in the feed is the quality of the pasture. It is nonsense to talk about keeping up the size of cattle on overstocked pastures. Grass of the best quality, such as the praires grow, and enough of it, will keep up the size, if the winter management is at all decent; milking and testing and the reject-

ion of everything of the blue-milk type and scant yield will do the rest.

The "granger's cow" does not spring out of the ground, nor is she the creature of accident or chance. She is possible only on rich pastures and in the hands of intelligent, thoughtful men, who depend on their own skill and judgment more than on the magic name of any breed. She is the result of intelligent selection of material out of great abundance, at hand, of intelligent breeding, and above all, of intelligent feeding; milking and milk-testing.

In developing a "granger's cow" the wise man will use the labors of those who have gone before him. He will buy even if he has to pay what seems a high price, the cow that is nearest his ideal; when he selects a sire he will disregard color if he is wise, and buy something that has been bred as near as possible in the lines that he has been following.—[Western Farm Journal.

### The Shipping of Cattle.

The Municipal Councils are petitioning Parliament on the subject of the cattle shipping regulations. Two petitions read on Tuesday, one from Wellington and the other from Halton, represent that under the existing rule five stockers, that is to say, cattle to be fattened on their arrival in England, are allowed the space on shipboard set apart for four fat cattle. Stockers should weigh about a thousand pounds, but cattle averaging fourteen hundred pounds are often marketed stockers, and occupy the same space as the leaner animals. The consequence is that the crowding injures and bruises the cattle, and produces loss when they are sold. The councils want Parliament to order that all cattle, whether stockers or fat cattle, shall be allowed a space two feet eight inches wide by eight feet long on board ship, and they declare that the requirement will prevent cruelty, and place the cattle trade on a more healthy footing.

### A RUSSIAN COUNT'S ADVENTURE.

#### He Was Thrown Out of a Window and Three Lawsuits Resulted.

A most amusing series of lawsuits is now in progress in Russia in which that exceedingly gay young nobleman, Count Plato Bariatsky, plays a prominent part, says the Marquis de Fontenoy. It appears that some time ago the worthy inhabitants of Kieff, where he is stationed with his regiment, were startled to see him suddenly fall from the first floor of a house belonging to a rich Armenian merchant on the most fashionable street of the place. He was fortunate enough, however, to do himself no harm, for his fall was checked by a peasant who was passing under the window at the time, and who received on his head the weight of the young officer's manly frame, being nearly crushed thereby.

Public curiosity was at once excited, and was in a measure satisfied by the commencement of three lawsuits, which furnish, to a certain extent, an explanation of the count's strange mode of egress from the house of the wealthy Armenian merchant. The first of the actions was that of the peasant, who summoned the count for damages inflicted on him by the fall. The count in turn summoned the Armenian merchant for having thrown him out of his window, while the Armenian merchant commenced proceedings for divorce against his beautiful Georgian wife, mentioning the count as correspondent in the case. From this it was clear what had taken place. The inference was too obvious to require explanation.

It was by no means obvious to the judges how they should adjudicate the responsibility in each of these cases. It was evident that the poor peasant was entitled to damages for having been half crushed by the body of the man who fell from the window. On the other hand it was hard to make the officer responsible for the result of his journey through the air, which he had certainly taken much against his will. At the same time it was difficult to blame the betrayed husband for turning the count out of his house in the drastic manner above described.

Finally the courts after much deliberation decided to make the husband responsible for the damages, on the ground that by a ukase of Emperor Paul I., bearing the date 1799, every man has a right to throw out of the window into the street any "useless piece of furniture which may happen to be in the house, provided he takes the precaution to call out three times beforehand to the passers-by, 'Take care!' failing which he is liable to a fine of 25 rubles and responsible for the accidents which his negligence may have occasioned."

The court held that the count was, at the time of his summary ejection, "a useless and superfluous piece of furniture in the house of the Armenian merchant, but that the latter had failed before throwing the nobleman out of the window to warn the pedestrians on the sidewalk as required by law. Accordingly, the court condemned him to pay the fine of 25 rubles and 4,000 rubles damages to the peasant besides paying the costs of the various actions, excepting that of the divorce, which is not yet decided.

I hear that the merchant has appealed, but it is doubtful whether the decisions already rendered will be reversed.

Ostrich farming is one of the important industries in South Africa, which, as yet furnishes the bulk of the ostrich plumes for the markets of the world. There are probably 200,000 domesticated ostriches in Cape Colony. Each bird is supposed to net his owner \$40 per annum.

A Washington dispatch which states that the United States cruisers will once more seize Canadian schooners in Behring Sea unless the *modus vivendi* is accepted by the British Government is probably the mere outcome of the heated imagination of one of the staff of war correspondents who became so numerous and made themselves and their papers so ridiculous during the Chilean troubles. The American Government at the demand of Lord Salisbury ceased from seizing Canadian sealers in Behring Sea during a whole season prior to the signing of the *modus vivendi*, and it is extremely unlikely that it will renew a course which under the circumstances is manifestly fraught with great danger. If the American Government interferes with Canadian vessels it will run the risk of ending the arbitration treaty and will, besides, have to assume the responsibility of endangering the peace of the English-speaking world.

### THE NAME HUGHSON.

#### How a Murderer Was Pursued to Madness and Death by an Unusual Nemesis.

I had ridden nearly fifty miles with him in the same compartment of the Pullman, and neither of us had spoken since the start. He was intent on his books and papers, I on the ever changing panorama without. When I had first entered the car he impressed me most pleasantly, and I anticipated a sociable *viz-a-viz* for my journey, and yet the stranger took no notice of my entrance or presence, paid no heed to a remark of mine about the weather, and seemed so thoroughly taken up with himself and his own affairs, that I determined he should remain undisturbed.

He was nothing to me; obviously I was still less to him, and so we rode on in silence, I only noticing him as, now and then, he would throw down a book or a paper and selecting another from his hand satchel, continue his reading. His nervous, uneasy manner finally communicated a restiveness to me, however, and I was just considering a stroll through the train when my companion broke the silence and changed my plans.

He had at length picked up a newspaper which I myself had thrown upon the floor, and hurriedly scanned a page or two, when I saw the color suddenly leave his cheeks, his eyes stared blindly, and his hands clutched the sheet nervously. Fascinated by the strange action, I watched him closely while he seemed to be reading again and again a paragraph of uncommon interest. Then with a curse he leaped up, tore the paper in twenty pieces, and turning upon me, gasped out:—

"What are you doing with that paper, sir?"

"Nothing just at present," I returned coolly. "You seem to have done all that is necessary."

"Oh, I beg pardon, I beg pardon for tearing your paper, sir," he apologized. "If you will permit me I will gladly—"

"That's all right," I said. "I was quite through with it. You were most welcome."

He made no answer for a moment, but stooped and picked up one of the fallen pieces of an inside page. He regarded it for an instant, and I observed the same excitement overcame him as before, but said nothing. I had decided to let him do the talking. At last he approached my chair and, leaning over, handed me the paper, indicating, as he did so, a certain small and obscure paragraph.

"Read it," he whispered. "Read it." I complied, and learned only that one Henry Hughson, a day laborer, had fallen down, broken a limb, and been removed to a hospital.

"Well?" I asked.

"The name," he replied, "Hughson—do you know it?"

"Never heard it before."

"Never heard it! Good God!" he exclaimed—how I wish I could say that!"

"What's the matter? I inquired. "Don't you like it? Does it suggest unpleasant memories?"

"No, no," he returned. "It's worse than that—worse than you can imagine. I'd give half my life to be rid of it once for all."

"Oh, I see," I broke in. "It's your name then."

"No; it is not."

"Your wife's maiden name, perhaps?"

"I am unmarried."

"Well, now, my good man, how can you consistently wish to be rid of a thing to which you deny all claim?" I protested.

"Oh, it is not that—not that," he said. "I will tell you." He took the chair opposite mine and leaning forward went on in an eager, breathless manner: "For a decade I have been haunted by this accursed name. Ten years ago I was engaged to be married to a beautiful girl named Flora Hughson. She died mysteriously on the eve of our wedding. Ugly rumors went about how I had at the eleventh hour learned that the wealth which gossip attributed to her was mythical, and in desperation I murdered her to avoid marriage. But—"

and he rudely seized my arm and bent toward me, "you don't believe that of me, do you?"

"My dear sir," I replied, rather ill at ease, "You will readily understand that I know nothing whatever of the case, and therefore—"

"Of course not, of course not," he interrupted. "But I swear to you that it is all a lie—a terrible lie. Why, sir," he went on "a man who would be guilty of such a crime should have it branded upon his brow in letters of blood that all the world might know his misery!" Here he paused for an instant, as he had spoken very rapidly and was out of breath. I held my peace and at length he resumed. "I fled from the rumor," "and, broken-hearted, became a wanderer without home or haven, yet seeking both. I went to Europe; for a time and soon after my return to this country was startled more than once by what I then regarded as a most singular series of coincidences. Everywhere I went the name of Hughson confronted me; it was in the papers, on the hotel registers, on the street signs—always staring me in eyes. Two years passed and still the same thing; three years and no change. What I had considered as mere coincidences now loomed up as monstrous phantoms pursuing me, taunting me, cursing me, everywhere. I grew afraid of the name. I live to-day in an abject horror of those seven letters that nothing else under heaven can equal. Here in this car, I have partly read a dozen papers and in each that awful name appears and burns itself into my sight like a brand from hell. I bought a book at random from a train-boy and before I had read ten pages I found the name of Hughson printed there for my destruction. It is killing me—this maddening terror; day by day I grow more nervous, less hopeful. It has gone on so for all these wretched years but, thank heaven, it cannot last much longer. I have often wondered if, when relief at length comes, the undertaker will not go by that cursed name of Hughson."

He stopped then, as the train slackened speed for a station, and gathered up his luggage. I made a few foolish comments on his story, and ended by saying he had neglected to tell his own name.

"To be sure," he replied, as we exchanged cards. "My name is Remsen, Horace Remsen; but I must leave you here—ten to one the first man I meet is a Hughson."

And we parted.

That was two years ago. Yesterday I read this item in my newspaper:—

"The body of a well dressed man was found floating in the river last night. His

identity is uncertain for, although the papers on his person are addressed to Horace Remsen, there is branded on his forehead and in no less than six other places on his body the name, Hughson."

### PEARLS OF TRUTH.

One of these days, is none of these days. Happiness is no other than soundness and perfection of mind.

Vows made in storms are forgotten in calms.

Every man's vanity ought to be his greatest scheme, and every man's folly ought to be his greatest secret.

If you would find a great many faults, be on the look out; but if you want to find them in unlimited numbers be on the look-in.

There are only two sorts of men—the one, the just, who believe themselves sinners; the other, sinners, who believe themselves just.

The essence of true nobility is neglect of self. Let the thought of self pass in, and the beauty of a great action is gone, like the bloom of a soiled flower.

To the disgrace of men it is seen that there are women both more wise to judge what evil is expected, and more constant to hear it when it happened.

A good conscience is better than two witnesses. It will consume your grief as the sun dissolves ice. It is a spring when you are thirsty; a staff when you are weary; a screen when the sun burns you, and a pillow in death.

Those who would purify their lines must first purify their thoughts; for if the ideal be vile and unworthy, the life must, to some extent at least, be a reflection of it. The fear of what others will say and think, the phantom of respectability, will not always prevent the fountain from pouring out its bitter waters.

### What a Diamond is.

The diamond generally, and in its purest condition, is colorless and transparent; yet at times it is found colored, but only slightly, with pale yellow, ochre yellow, light bottle green, yellowish green, blackish green blue, red, and from brown to black. Next to yellow green diamonds are the most numerous: the blue are very rare and not of a bright tint. When the diamond is between brown and black its transparency entirely disappears, or is seen only at the angles.

Entirely colorless diamonds come from the mines in India, Brazil, the Cape and Australia. One fourth of "pure water," with a stripe or spot of color; and the remainder colored.

The colored diamonds preserve their luster and clearness best when they are cut; especially the beautiful yellow ones, which by candle-light almost surpass in brilliancy the diamonds of pure water. Diamonds can be grouped according to the shade of color.

The diamond is a non-conductor of electricity, and this is the more strange, as graphite and charcoal, substances absolutely identical with it chemically, are very good conductors. By friction, however, both in the rough and polished state, it becomes positively electric but loses its electricity completely in the course of half an hour.

Chemically the diamond consists of pure carbon. Newton concluded the diamond must be a combustible body in consequence of its high refractive power. Robert Boyle, however, strove in vain to consume it in the crucible. For the purpose of investigating this supposed combustibility the Academy of the Cimento, at Florence, in the year 1694 induced by the Grand Duke Cosmo, III, fixed a diamond in the focus of a large burning-glass. The Academicians found that it cracked, coruscated, and at length disappeared without leaving a particle behind.

### Boxing With the Czar.

It is said that while at Copenhagen last summer the Czar distinguished himself as a boxer, boxing having become the favorite form of exercise of this imperial Hercules, writes the Marquis de Fontenoy.

His great difficulty is, and always has been, to find any one ready or willing to stand up against him and to respond to each blow by a counter one. Neither his Russian brothers nor any dignitaries of his court are particularly willing to oblige him in this matter, as they dread not only the force of his powerful fist, but also fear of incurring his resentment in the event of their responding to his blows.

Indeed, the only man who ventures to put on the gloves with him and to meet him fairly and squarely is his brother-in-law, young Waldemar, the sailor prince of Denmark.

The other day, during the performance of one of Wagner's most wearisome operas, the Czar and the prince withdrew to a vacant room and had a good set-to, which was on the point of ending fatally, for the Czar's huge fist struck Prince Waldemar's chin with such force as to dash him to the ground, where he lay for a quarter of an hour before the Czar and his attendants could restore him to consciousness.

The Czar would do well to abandon the gloves, for he is apparently unable to realize the extent of his strength, and does much damage with his sledge-hammer blows. Indeed it was a blow such as this which struck his elder brother, the late Czarowitz Nicholas, on the chest, and which enabled Alexander not only to marry one of the most attractive princesses in Europe, but also to become the heir to, and eventually the occupant of, the Russian throne.

### Telephoning 500 Miles.

An experiment in telephony has been made in Melbourne. The postmasters-general of Victoria and South Australia, with the principal executive officers, succeeded in establishing conversation between Melbourne and Adelaide, a distance of 500 miles. The governments of the two colonies have erected a copper wire (No. 12, or rather more than 1/4 inch in thickness), which is to be used for a new quadruplex telegraph instrument, and it was determined to see what could be done with the telephone over the wire. For over an hour an animated conversation was carried on, and the chimes of the Adelaide Post Office clock were distinctly heard in Melbourne, and vice versa. The instruments used at Melbourne were the Hunning, Berthou, Berliner and the Blake, and the two former were found most effective.

### PAPER MADE FROM DIET.

#### Latest Triumph of Science in Turning Waste Things to Use.

The Refuse-Disposal company, limited, in London, is engaged in the manufacture of paper from the contents of the dust bin, of which 3 per cent. at least is paper and rags, besides quite a quantity of straw and other rough material. The process, says the "Paper World," is thus described: The dust on its arrival at the works is shot into a large revolving riddle having a three inch mesh, through which the heavier and smaller matter finds its way, while the paper, rags, larger bottles, tins, etc., are received at the delivery end of the riddle and are duly sorted by hand. The heavier materials which pass through this riddle are received on a traveling band and elevated to a second riddle having a one and a half-inch mesh; at the delivery end of this second riddle an air blast blows the lighter material away from the heavier; the lighter portion principally consists of material suitable for making rough paper; the heavier is automatically delivered on to a revolving table, where it is overlooked by boys, who separate the bones, glass, etc., while the clinkers and organic matter are ground up in a kolleragag. This ground material is sent out from the works for manure. The heavier and smaller pieces which pass through the one and a half-inch mesh of the second riddle are again received on a traveling band and mechanically sifted through a half-inch mesh which divides them into two qualities, ashes, which are automatically delivered into barges, and "breeze." This "breeze" consists of a great extent of small pieces of coal and other organic material, and is used by the company as fuel, being burned in their boilers. To prevent any disagreeable smell the draught for the fires is obtained by exhausting with a fan and the products of combustion passed through an ordinary "scrubber," thus avoiding all nuisance. The paper-making materials are at once run into a common brown casing-paper on the premises. Never was a paper-mill with a 60-inch machine got into a smaller space. The company are now making about 1,500 pounds of brown paper in twelve hours.

With more space and by more judicious sorting and treatment of the materials to hand the company would without doubt be enabled to increase the value of the papers which they make. The works are sufficiently large to be capable of treating a load of dust in about six minutes. The refuse received in the morning leaves the work as finished paper in the afternoon.

### Canadian Railroads in the States

A decision of great importance to Canadian railroads has just been rendered by Judge Allen in an Illinois court on the interstate commerce law. This decision if sustained by the appellate tribunal, will have a very important effect on the interstate commerce law and undoubtedly renders Canadian roads free from the provisions of this law. The decision has also opened up anew the whole question of Canadian competition with American railroads, and seems to have been construed by many eminent lawyers as indicating the beginning of the end of the interstate commerce law. Gen. John McNulty, of Illinois, who was in Washington for a considerable portion of last winter as the representative of the interest opposing the Canadian railroads, and who has given special study to the subject of the Canadian railroads, has this comment to make upon the decision of Judge Allen and its possible effect upon Canadian railroads: "That no penalties could be inflicted by our courts for acts done beyond the territorial limits of the United States in contravention of the provisions of the act has always been conceded by everybody. This gave an undue advantage and the control of the foreign traffic to the Canadian road, whose officers might choose to limit their operations to the actual payment of rebates, etc., on the Canadian side of the border. This decision of Mr. Allen goes further and in effect says that the law does not apply to Canadian railroads. In other words traffic managers can make and alter such tariffs, give rebates, make discriminations, ignore the long and short clause in a word, ignore the whole law—at their pleasure on all traffic to and from Canadian points and ports. The necessary sequence is that all roads as a means of self-preservation must do the same of corresponding traffic. This they must do not only to protect their own interests but to protect the general interests of the American ports and business centres, and especially New York, Philadelphia and Baltimore and all inland ports dependent upon those ports for imports. Otherwise traffic will be diverted from them to the full extent of the carrying capacity of the Canadian roads to take it. To hold that our own roads are bound by while the Canadian traffic is free from the restriction of this law, would be simply to destroy our commerce, the power to do which does not rest in Congress. The power to regulate does not imply the power to destroy. Although no penalties can be inflicted for acts done in Canada, the Canadian roads can be regulated by our laws if Congress so choose. There are no English or foreign ships plying between Chicago or Buffalo, or any of our domestic ports, simply because they are prohibited by law. In the same way our vessels are prohibited from carrying traffic between Canada or England ports. For like reasons English railroads in Canada carrying traffic to and from points in the United States should be excluded. Or if permitted to do business on our side of the line they should be under a license revokable for a violation of the rules which govern all American roads."

### The Wandering Stones.

Near the little village of San Jose, Peru, on the shores of the great lake, Titicaca—the loftiest body of water in the Americas—are three large pillars of stone. They are of unequal height and shape, and the black plumage and gaunt figures of the condors which may be continually seen perching upon them adds to the weird effect of the solitude.

On one of these huge boulders the rude features of a human face has been cut, and the others are carved and chiseled with designs of various kinds. These carved symbols are all supposed to have some reference to sun-worship, which was the known practice of the old Peruvians.

Although the ancient inhabitants of Peru were highly civilized, and probably had many mechanical appliances, it is not believed that they were equal to the task of placing these gigantic monoliths in their present position; the evidence rather points to their being erratic, or wandering boulders, deposited by some melting glacier.